

8/28/1981

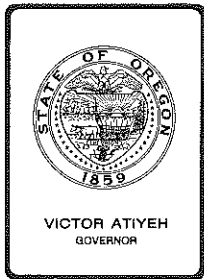
OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS



State of Oregon
Department of
Environmental
Quality

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Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No.L(2), August 28, 1981, EQC Meeting

Request for a Variance from the General Emission
Volatile Organic Compounds, OAR 340-22-107 & 110(3),
Fire District 10, Portland

Background

Fire District 10 operates gasoline storage tanks at six fire stations in east Multnomah County. The fire district has requested a variance from the July 30, 1981 deadline for VOC control installation until January 1, 1983.

The Commission is authorized by ORS 468.345 to grant variances from the Department rules if it finds that special circumstances render strict compliance unreasonable or burdensome.

Alternatives and Evaluation

The fire district did not learn about the rule until after their 1981-82 budget was approved. The fire district has gasoline storage tanks at 6 stations and requests a variance until January 1, 1983 in order to include the cost in the 1982-83 budget. This 18 month period will provide time to include the cost in the 1982-83 budget and will provide the first 6 months of the fiscal year to complete the required changes.

The total gasoline throughput is approximately 34,000 gallons per year. The estimated uncontrolled emissions are 0.2 tons per year. The eastern boundary of the Volatile Organic Compounds control area is the Sandy River which is also the eastern boundary of Fire District 10.

The Department supports this variance request because attaining immediate compliance at the six fire stations would be unreasonable in view of the cost not being budgeted for in the 1981-82 budget and the low amount of emissions involved.

Summation

1) Fire District 10 operates six fire stations with gasoline storage tanks

in east Multnomah County. The fire district has requested a variance to operate these fire stations without controls until January 1, 1983.

- 2) The estimated emission from this source are 0.2 tons per year. Installation of vapor controls is estimated at \$2,500.
- 3) The Commission is authorized by ORS 468.345 to grant variances from the Department rules is if it finds that special circumstances render strict compliance unreasonable or burdensome.

Director's Recommendation

Based upon the findings in the Summation, it is recommended that a variance from OAR 340-22-107(3), VOC Emission Standards for Small Gasoline Storage Tanks, be granted to Fire District 10, for operation of gasoline storage tanks at six fire stations in east Multnomah County without controls until January 1, 1983.

Bill

William H. Young

Attachment Variance Request from Fire District 10

F.A. Skirvin:inb

(503) 229-6414

July 31, 1981



FIRE DISTRICT 10
East Multnomah County

P.O. Box 16368
1927 S.E. 174th Avenue
Portland, Oregon 97216

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

July 23, 1981

RECEIVED
JUL 23 1981

AIR QUALITY CONTROL

Mr. Ray Potts
Department of Environmental Quality
P.O. Box 1760
Portland, Oregon 97207

Dear Mr. Potts:

We have been informed by our gasoline supplier that he cannot fill our storage tanks unless they are equipped with an approved vapor recovery system.

We are just starting a budget year (1981-82) and have not budgeted for the installation of these systems. A variance for an 18-month period would give us time to include the costs in the 1982-83 budget and provide us with the first six months of that fiscal year to complete the required changes.

We have gas storage tanks at six of our stations, and our total gasoline use per year is approximately 34,000 gallons.

Your consideration of this matter would be appreciated.

Very truly yours,

DAN SMITH
Assistant Chief
Fire District #10

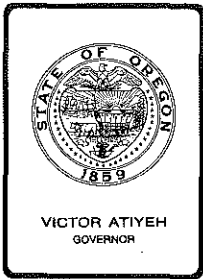
ADMINISTRATION
761-7120

FIRE MARSHAL
760-1081

TRAINING
666-3824

SHOP
665-8610

EMERGENCY
761-7311



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No.L-3, August 28, 1981, EQC Meeting

Request for a Variance from General Emission Standards
for Volatile Organic Compound for Delivery Vessels,
OAR 340-22-107, 120(1)(b), 120(3), 120(4) & 137(1),
for the Arrow Transportation Company, Portland

Background

The Arrow Transportation Company, 3125 N. W. 35th Avenue, Portland, Oregon, operates a bulk gasoline transporting business (truck line) in the states of Oregon, Washington and Idaho. Their trucks operating in Oregon are required to pass a pressure/vacuum leak test for delivery vessels, pursuant to OAR 340-22-137(1) by April 1, 1981. At its April 24, 1981 meeting, the Commission extended the April 1, 1981 compliance dates for gasoline facilities to July 31, 1981 via temporary rule procedures. Since July 31, 1981 has passed, these compliance dates have reverted back to April 1, 1981.

The company requests a variance for its gasoline delivery vessels that are not based in Oregon from the vapor tightness test requirements of OAR 340-22-137(1) until January 31, 1982. The non-Oregon based tank trucks make less than 5% of the truck loadings covered by the rule. The company ordered the necessary equipment on February 24, 1981, but it has only received enough equipment to bring all 27 Oregon based units into compliance. The complete fleet of 88 units is to be brought into compliance with the Oregon rule by January 31, 1982.

The company ordered 175 new dome lid assemblies and received one shipment of 28 lids on May 29, 1981. The supply of necessary equipment is beyond the company's control. Without a variance their delivery system would be seriously disrupted and they would not be able to take advantage of backhauls on empty units passing through Oregon or use equipment transferred to the Portland terminal for maintenance. This would be a burden on their customers and serious financial burden on Arrow Transportation Company.



Contains
Recycled
Materials

Summation

- 1) Arrow Transportation Company operates a bulk petroleum products transporting business in Oregon, Washington and Idaho with a terminal at 3125 NW 35th Avenue, Portland. The company requests a variance from VOC controls for its non-Oregon based tank truck units until January 31, 1982.
- 2) The necessary equipment was ordered on February 24, 1981, but the company has only received enough equipment to be able to have their Oregon based units brought into compliance.
- 3) The tank truck loads affected are less than 5% of their Oregon business or 10 tank truck unit loads per month.
- 4) The Department agrees that conditions beyond the company's control prevented the company from bringing all units into compliance.
- 5) The Commission is authorized by ORS 468.345 to grant variances from Department rules if it finds that conditions exist that are beyond the control of the person granted the variance.

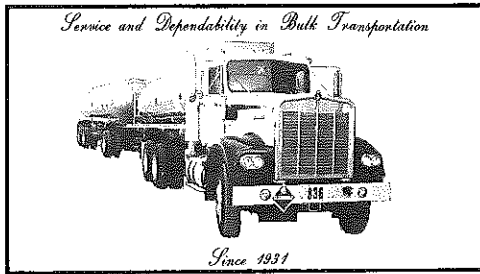
Director's Recommendation

Based upon the findings in the summation, it is recommended that a variance from OAR 340-22-107, 120(1)(b), 120(3), 120(4) & 137(1) be granted to Arrow Transportation Company for its non-Oregon based tank truck units to onload and offload gasoline until January 31, 1982. This variance shall be subject to the limit of no more than 10 tank truck units per month onloadings of gasoline.

Bill

William H. Young

Attachments: Variance Request from Arrow
Transportation Company
Copy of Invoice from C-B Equipment, Inc.
RP:a Letter from Arrow Transportation Co., August 7, 1981
AA1237 (1)
229-6093
August 3, 1981



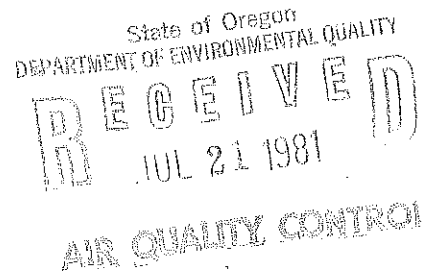
AN EQUAL OPPORTUNITY EMPLOYER
ARROW TRANSPORTATION COMPANY

BOX 10106 — 3125 N.W. 35th AVENUE
PORTLAND, OR 97210
503 - 222-1875

offices at:
Boise, Idaho • Coos Bay, Eugene, Oregon • Pasco, Seattle, Spokane, Washington

July 20, 1981

State of Oregon
Department of Environmental Quality
P.O. Box 1760
Portland, OR 97207



Attn: Mr. Ray Potts

Dear Mr. Potts:

Arrow Transportation Co. would like to request a six (6) month variance from the Air Quality regulations concerning Pressure/Vacuum testing of gasoline delivery trucks.

As stated in my letter of March 17, 1981, we have 175 new dome lid assemblies on order. As of this date we have received only one shipment of 28 lids (see attached packing slip). This is far short of the promises made to us by the supplier. Unfortunately we have had many promises, but very few lids delivered.

We have enough dome lids to equip all but two (2) units stationed in Oregon. We anticipate having all of these domes installed by July 31, 1981 and have at least 75% of those units pressure/vacuum tested.

We offer the following schedule for compliance with the tank testing requirements:

July 31, 1981 - All available dome lids installed and at least 75% of Oregon based equipment tested.

August 31, 1981 - All 27 Oregon based units in full compliance with Air Quality requirements.

January 31, 1982 - All 88 of our units in compliance.

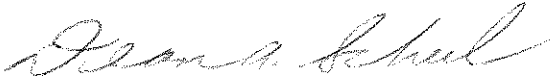
Continued--

July 20, 1981
State of Oregon
Department of Environmental Quality
Page 2

We request this variance because the supply problems are beyond our control. Without a variance our delivery system would be seriously disrupted and we would not be able to take advantage of backhauls on empty units passing thru Oregon or use equipment transferred to the Portland terminal for maintenance. This would be a burden on our customers and a serious financial burden on Arrow Transportation Co.

Yours very truly,

ARROW TRANSPORTATION CO.

A handwritten signature in cursive script, appearing to read "D. A. Scheel".

D. A. Scheel
Assistant Operations Manager

DAS/kw
enclosure

JMBER

C-B EQUIPMENT, INC.

BOHNHARDT VALVES AND DOMES

10851 DRURY LANE • LYNWOOD, CALIF. 90262

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T
O
Beall Trans-Liner, Inc.
9200 North Ramsey Blvd.
Portland, OR 97203

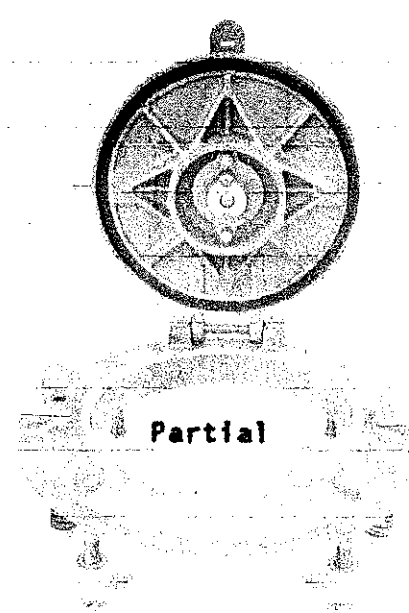
C-B EQUIPMENT, INC.

BOHNHARDT VALVES AND DOMES

10851 DRURY LANE • LYNWOOD, CALIF. 90262

S
H
I
P
T
O
Arrow Transportation Co.
3125 N.W. 25th St.
Portland, OR 97210

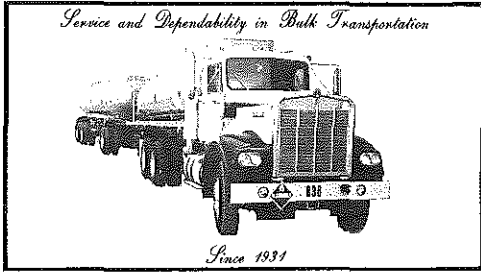
DATE	YOUR ORDER NO.	DATE SHIPPED	VIA	B/O NO.
2/24/81	14484	5/29/81	14 Ctns. 692# C/F	

ORDERED	B/O	SHIPPED	PART NO.	DESCRIPTION	PRICE	EXTENSION
175	147	28	7355-41	10" X 16" Dome Assy.		
						
			O/S PMT X			
<i>On Paid Spots</i>						
						8% FED. EXCISE TAX ON
						SUBTOTAL
						SALES TAX
						TRANSPORTATION CHARGES
						TOTAL

TERMS

PLEASE PAY FROM THIS INVOICE. WE DO NOT MAIL STATEMENTS.
PACKING LIST

8302



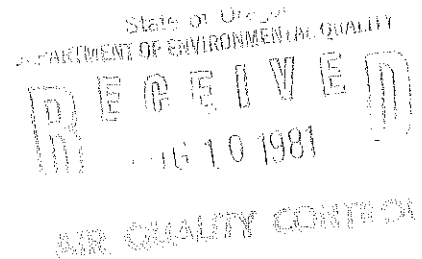
AN EQUAL OPPORTUNITY EMPLOYER
ARROW TRANSPORTATION COMPANY

BOX 10106 — 3125 N.W. 35th AVENUE
PORTLAND, OR 97210
503 - 222-1875

offices at:
Boise, Idaho • Coos Bay, Eugene, Oregon • Pasco, Seattle, Spokane, Washington

August 7, 1981

State of Oregon
Dept. of Environmental Quality
P.O. Box 1760
Portland, OR 97207



Re: File Reference: 26V057

Gentlemen:

In our letter of July 30, 1981 we stated that we have four (4) trucks and five (5) trailers that must have vapor recovery controls installed and that we anticipate installation to be completed by August 31, 1981. The vehicles in question are dispatched from locations outside of Oregon, but will be brought to Portland to have the necessary installations completed. In the period prior to installation, the vehicles will not be used in gasoline service to prevent venting vapors into the air.

Sincerely,

ARROW TRANSPORTATION CO.

A handwritten signature in cursive script, appearing to read "R. W. Spielman".

R. W. Spielman
Accountant

RWS/kw

Arrow Transportation Company

July 30, 1981

TRAILER NO.

84A Beall

121 Beall

609 Beall

615 Beall

619 Beall

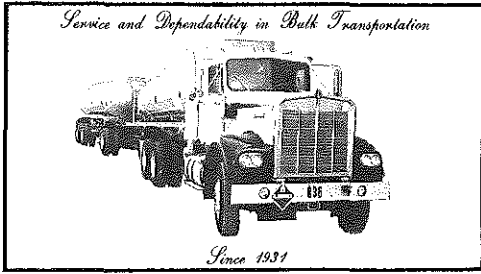
TRUCK NO.

670 Kenworth

692 Kenworth

706 Kenworth

768 Kenworth



AN EQUAL OPPORTUNITY EMPLOYER
ARROW TRANSPORTATION COMPANY

BOX 10106 — 3125 N.W. 35th AVENUE
PORTLAND, OR 97210
503 - 222-1875

offices at:
Boise, Idaho • Coos Bay, Eugene, Oregon • Pasco, Seattle, Spokane, Washington

July 30, 1981

STATE OF OREGON
R E C E I V E D

JUL 31 1981

**Dept. of Environmental Quality
Vehicle Inspection Division**

State of Oregon
Dept. of Environmental Quality
P.O. Box 1760
Portland, OR 97207

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
R E C E I V E D
JUL 31 1981

Re: File Reference: 26V057


AIR QUALITY CONTROL

Gentlemen:

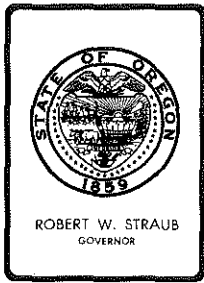
With reference to the project number listed above and previous correspondence, we wish to advise that we were unable to complete the vapor recovery project as scheduled. We attach a list of four (4) trucks and five (5) trailers that are still to have vapor controls installed. The anticipated completion date for all units is August 31, 1981.

Sincerely,

ARROW TRANSPORTATION CO.


R. W. Spielman
Accountant

RWS/kw
att.



Environmental Quality Commission

POST OFFICE BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item M, August 28, 1981, EQC Meeting
Request for Variance from OAR 340-30-015, Medford-Ashland
AQMA Hogfuel Boiler Emission Limitation, by Timber Products
Company

Background

The Commission on March 31, 1978 adopted special emission limitation rules for industrial sources located in the Medford-Ashland AQMA as part of the strategy to lower total suspended particulates to primary health standard levels. OAR 340-30-015 established an emission limit of 0.05 grains/standard cubic foot corrected to 12% CO₂ for hogfuel boilers rated in excess of 35 million BTU/hour fuel input. Control equipment required to meet this emission limit was to be installed and certified as capable of meeting the standard by January 1, 1980.

Timber Products Company submitted a Notice to Construct and control strategy plans for controlling boiler emissions at its North Medford particleboard and plywood plants to the Department on February 3, 1979. Timber Products Company's control strategy was to install a 3-stage medium pressure drop Burley wet scrubber. Source test data was submitted to the Department which indicated that this particular type of scrubber applied to a hogfuel boiler could meet the 0.05 grain standard. The Department granted conditional approval and authority to proceed to Timber Products Company on March 5, 1979.

The Burley scrubber was installed and operational in October of 1979. Source testing and opacity observations revealed that the boiler was not capable of meeting the emission limit criteria as set forth in OAR 340-30-015. Timber Products Company and the scrubber supplier attempted through equipment modifications to increase the efficiency of the scrubber unit. These efforts failed to achieve the required results. Engineering test data gathered during this period revealed that the majority of particulate carryover was salt in character, sub-micron in size, and generated from the combustion of particleboard sanderdust and trim (wastes). This dry fuel component comprises approximately 50% of the fuel to the boiler.



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Timber Products Company tested the boiler using only traditional hogfuel, e.g. bark and non-contaminated wood residues. It appeared that under these firing conditions, the boiler/scrubber could operate at a marginal level of compliance. The boiler, however, could not achieve a satisfactory steam output without the use of the dry, more heat efficient particleboard wastes.

As a result of these findings, Timber Products Company initiated a program with its resin suppliers to reduce and/or eliminate the salts content of the resin used in manufacturing particleboard; the resin being identified as the source of salts in the fuel and carryover emissions. This significantly increased production costs. The volume of removed salt was made up by adding more expensive resin.

These cost increases are being evaluated by Timber Products Company against other new control strategy alternatives for controlling the boiler emissions. Source testing to determine the success of this approach is scheduled for mid-August, 1981, the results of which may not be available for the Commission's review prior to the August 28, 1981 meeting.

Timber Products Company has submitted a proposed compliance schedule with their request for a variance, the strategy being yet undefined. A recent study of the boiler, fuels, and emission problems by David Junge, P.E., Head of the Energy Research and Development Institute at Oregon State University, has identified other potential control strategies for consideration should the salts removal not prove sufficient.

Alternatives and Evaluation

Timber Products Company has requested a variance to OAR 340-30-015 under the provisions of ORS 468.345(b) where "special circumstances render strict compliance unreasonable, burdensome, or impractical due to special conditions" and (c) when "strict compliance would result in substantial curtailment or closing down of a plant".

Timber Products Company purchased, installed and has been operating a scrubber on their hogfuel boiler for purposes of reducing particulate emissions. While particulate emissions from the boiler have been reduced, they have not been reduced to a level consistent with the requirements of OAR 340-30-015 adopted by the Commission specifically for the particulate attainment strategy of the Medford-Ashland AQMA.

Timber Products Company has made attempts to bring this boiler into compliance with the emission limit rule. Engineering study and data revealed that the boiler/scrubber would not be able to achieve compliance with the rule because of salts contained in the dry particleboard fuel.

Use of this manufacturing residue fuel is necessary to meet the thermal efficiency requirements of the boiler. Approximately 125 tons per day of this dry material is utilized for fuel in the boiler which would otherwise pose a solid waste problem.

Timber Products Company has altered the formulation of the resin used to bind the fibre in its particleboard by removing the salt. This act in and of itself can be a control strategy and testing is scheduled to ascertain effectiveness. Test results should be finalized around the first week in September, 1981. These test results will be used to direct the development of a subsequent control strategy if needed. This could include the removal of the existing scrubber and replacement with a more efficient device.

Timber Products has proposed a compliance schedule that calls for the issuance of purchase orders for additional control equipment by January 1, 1982 if needed. Equipment installation would be complete by January 1, 1983 and final demonstration of compliance by June 30, 1983. This schedule of compliance coincides with that schedule adopted by the Commission for particleboard dryers in the Medford-Ashland AQMA, of which Timber Products has two (2). Timber Products Company has proposed such simultaneous scheduling for purposes of financing and construction period shutdown.

Strict compliance with OAR 340-30-015 would result in the closure of two (2) plants which derive process steam from this boiler.

Summation

1. The current emission limit for hogfuel boilers in the Medford-Ashland AQMA with BTU input greater than 35 million BTU's per hour is 0.05 grains/standard cubic foot of air corrected to 12% CO₂. Compliance for existing sources was to have been by January 1, 1980.
2. Timber Products Company purchased, installed, and is operating a medium pressure drop wet scrubber on its boiler in North Medford to meet the emission limitation rule.
3. Source testing to date has shown the boiler/scrubber cannot operate in compliance with the emission limitation rule.
4. Engineering and source test data reveals that the main emission problem is created by salt residues in the dry particleboard (wastes) fuel.
5. Timber Products Company has initiated a formulation change in the resins used in particleboard production allowing them to remove the salt.

6. The effectiveness of reducing the emission levels through removal of the salt will be ascertained by source test in mid-August 1981. The results of this test will be available in September, 1981.
7. Timber Products Company has requested that the EQC grant them a variance pursuant to ORS 468.345(b) and (c) citing special circumstances and conditions exist and strict compliance would result in substantial curtailment or closure of a plant(s).
8. Timber Products Company has proposed a compliance schedule for bringing the boiler into compliance coincidental with the schedule on its two (2) particleboard dryers.
9. The EQC has the authority pursuant to ORS 468.345 to grant specific variances where certain conditions exist as defined by law and may condition such variances as appropriate.

Director's Recommendation

Based upon the findings in the summation, it is recommended that the Commission:

- A. Grant a variance from OAR 340-30-015, Medford-Ashland AQMA Hogfuel Boiler Emission Limitations, to Timber Products Company conditional upon the Company's adherence to the following increments of progress towards compliance:
 1. By no later than October 30, 1981 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department of Environmental Quality for review and approval.
 2. By no later than January 1, 1982 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
 3. By no later than May 1, 1982 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
 4. By no later than January 1, 1983 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
 5. By no later than June 30, 1983 the permittee shall demonstrate that the boiler is capable of operating in compliance with the applicable Air Quality Rules and Standards.

A. (Cont.)

6. Within seven (7) days after each item, number 2 through 5 above, is completed the permittee will inform the Department in writing that the respective item has been accomplished.

Further, it is understood that a condition of the variance will be that the existing boiler scrubber be operated and maintained at peak efficiency levels throughout the period of variance, including the use of "salt-free" resins.



William H. Young

Attachments: Variance Request from Timber Products Company and supporting documents

G.L. Grimes:fs
(503) 776-6010
July 30, 1981



TIMBER PRODUCTS CO.
Executive Office

POST OFFICE BOX 269
SPRINGFIELD, OREGON 97477
PHONE 503/747-3321

June 26, 1981

Mr. Gary Grimes
Regional Manager
Southwest Regional Office
Department of Environmental Quality
201 West Main Street
Medford, Oregon

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 29 1981

SOUTHWEST REGION OFFICE

Dear Mr. Grimes:

Timber Products Co. requests a variance to OAR 340-30-015 (Hog Fuel Boiler emissions limitation for the Medford Ashland AQMA). This request is being made under the provisions of ORS 468.345 subparagraph (b) and (c).

Subparagraph (b) applies when "special circumstances render strict compliance unreasonable, burdensome or impractical due to special conditions."

Subparagraph (c) applies when "strict compliance would result in substantial curtailment or closing down of a plant."

In 1979 Burley scrubbers were installed with multi-clones to control the emissions from the boiler. At that time the Burley scrubbers were considered to be the best available control device on the market. However, these scrubbers have failed to bring the emissions from the boiler to the level required by the regulations.

Timber Products Co. has investigated other types of emission control equipment and commissioned a study by David Junge, P.E., Head of the Energy Research and Development Institute at Oregon State University, to isolate the cause and recommend a solution to the emission problem. The results of this study, reinforced by recent test data, indicated that a high percentage of the emissions originated from salt. Salt is used as an extender with resin in the manufacturing of particleboard. Board trim waste and sander dust from the particleboard process is then used as a fuel source in the boiler.

On June 3, 1981, the decision was made to use only salt-free and lignin-free resins. This will reduce the particulate emissions to, or near, the compliance level. A test to determine this new level is scheduled for August 11, 1981, with test results available in early September.

Mr. Gary Grimes
Department of Environmental Quality
June 26, 1981
Page two of two

This change in resins will increase production costs. In the first five months of this year, 10,210,000 pounds of resin were used at a cost of \$1,215,000. The same quantity of salt-free and lignin-free resins would have cost \$1,303,000. This is an increase of \$88,000 for an annualized increase in production costs of \$211,000.

The boiler at Timber Products Co. is centrally located and provides the steam requirements for both the Particleboard Plant and the Plywood Plant. Strict compliance at this time would force the shut down of the boiler and thus force the shut down of the entire Timber Products Co. particleboard and plywood operations.

We believe this change in resins will bring the Timber Products Co. boiler into compliance. If, however, the tests conducted by BWR indicate little or no improvement in control of particulate emissions, additions to or replacement of the Burley scrubbers will be implemented by Timber Products Co.

In view of these positive and costly steps taken to overcome the boiler emission problem, we request that a variance be granted to Timber Products Co. to permit continued operation of the boiler under the previously submitted compliance schedule.

Very truly yours,

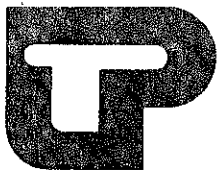


J. H. Gonyea

JHG/bb

enc.

CC: F. A. Skirvin
Department of Environmental Quality
Portland, OR



TIMBER PRODUCTS CO.

Executive Office

POST OFFICE BOX 269
SPRINGFIELD, OREGON 97477
PHONE 503/747-3321

June 11, 1981

Mr. Gary Grimes
Department of Environmental Quality
Southwest Regional Office
201 W. Main Street, Suite 202
Medford, Oregon 97501

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 15 1981

SOUTHWEST REGION OFFICE

Dear Gary:

Timber Products Co. has not met the emission control levels required for boilers in the Medford-Ashland AQMA. The three stage Burley scrubber system installed in November 1979 failed to remove sufficient particulate matter.

David Junge P.E., head of the Energy Research and Development Institute at Oregon State University was employed as a consultant to review and to make recommendations with an eye toward solving the boiler emission problem. His report indicated that changes to increase the efficiency of the boiler might be worthwhile from an economic standpoint but the resulting improvements would have little impact on the reduction of particulate emissions. He did point out, however, that the sanderdust used as fuel contained a great quantity of salt. Salt is used as an extender with the resins in the manufacture of particle board. Sanderdust is waste material developed from the finishing process. The salt apparently passes through the combustion process relatively unchanged and appears as a blue haze which is a very fine particulate matter.

On May 20 BWR ran a comparative emission test on the boiler. On test number one the boiler was fired with only unadulterated hogged fuel and on test two it was fired with a mixture of hogged fuel and particle board edge trim plus use of the sanderdust injection burner operated on high fire. The grain loading on test number one was 0.046 corrected to 12% CO₂. Test number two was well outside of the emissions standards. Inspection of the filter from test number two showed a heavy loading of a gray-white material while the filter from test number one was covered with a light coating of black sooty material.

David Junge's evaluation and the results of the comparative testing corroborated a previous analysis - that the use of sanderdust as fuel was the major source of the emissions, primarily caused by the salt content.

Chembond has developed a fast-cure salt-free resin. Timber Products Co. obtained some of this material and used it in a sample production run. The production rate was not affected and the manufactured board met the company's quality standards.

Mr. Gary Grimes
Department of Environmental Quality
Southwest Regional Office
June 11, 1981
Page two of two

On June 3, Timber Products Co. made a decision to use only salt-free and lignin-free resins in the manufacture of particle board with the changeover to take place on depletion of stock on hand. This was a difficult decision to make because of the increased production costs. In the first five months of this year, 10,210,000 pounds of resin were used at a cost of \$1,215,000. The same quantity of salt and lignin-free resins would have cost \$1,303,000 - an increase of \$88,000 - for an annual increase in production cost of \$211,000.

The impact of this change cannot be fully evaluated until the production department has developed experience with the new material. This should be accomplished by the end of July 1981. BWR is scheduled to test the boiler emission levels on August 11, the results of which should be in our hands by September 8, 1981.


We believe that this change of materials will bring the Timber Products Co. boiler into compliance. If, however the tests conducted by BWR show little or no improvement in the control of particulate emissions, replacement of or additions to the existing emission controls will be necessary.

We request approval of the following time table should additional emission controls be required.

January 1, 1982	Issue Purchase Order
May 1, 1982	Start Construction
January 1, 1983	Complete Construction
June 30, 1983	Demonstrate Compliance

In view of the positive and costly steps we have taken to overcome the boiler emission problem we request a variance be granted Timber Products Co. to permit continued operations of the boiler in accordance with the above time table.

Very truly yours,


Joe H. Gonyea

JHG/bb

Enc. Copy of BWR Report 5-20-81
Timetable Form AFB

CC: F. A. Skirvin
Air Quality Division
Department of Environmental Quality



Department of Environmental Quality
SOUTHWEST REGION

201 W. MAIN, SUITE 2-D, MEDFORD, OREGON 97501 PHONE (503) 776-6010

May 8, 1981

Joseph H. Gonyea
Timber Products Company
P.O. Box 269
Springfield, OR 97477

RE: AQ - Jackson County
Timber Products Co.
ACDP No. 15-0025

Dear Mr. Gonyea:

We have received your letter of May 4, 1981 wherein you described problems encountered with the Burley scrubber on the power boiler and non-achievement of emission standards (.05 g/scf). You indicated in your letter that the contractor for Burley was proceeding to add a fourth stage to the scrubber or a mist eliminator; the resultant effectiveness of either or both to be determined within the next few weeks.

The Department has completed review of the source test on that Boiler performed by BWR and Associates and concurs that compliance with the standard was not demonstrated. Our response to the noncompliance status of the boiler normally would have been to request a compliance schedule of corrective action through a Notice of Violation.

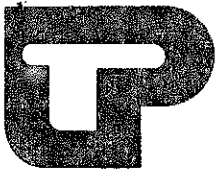
In light of your letter and the actions you propose to undertake, we will defray such action until June 15, 1981 while awaiting the results of your corrective actions. We request that you maintain close contact with this office during this period of evaluation. Please inform us of your testing schedule so that our staff can make the appropriate opacity and operational observations.

Sincerely,

Gary Grimes
Region Manager

GG:fs

cc: Fritz Skirvin, AQ Division



TIMBER PRODUCTS CO.

Executive Office

POST OFFICE BOX 269
SPRINGFIELD, OREGON 97477
PHONE 503/747-3321

May 4, 1981

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
MAY 4 1981

Mr. Gary Grimes
Regional Manager
Department of Environmental Quality
201 West Main Street, Suite 202
Medford, OR 97501

SOUTHWEST REGION OFFICE

Dear Gary:

Installation of a three stage Burley scrubber on the boiler stack was completed in 1980. It became evident, after being placed in service, that the scrubbers could not control the emission from the stack to the desired level. The contractor has made a number of changes in the installation in an attempt to meet the terms of his contract with Timber Products Co. The contractor is now proposing the addition of a fourth stage or the addition of a demister. Tests on both of these devices will be made within the next few weeks.

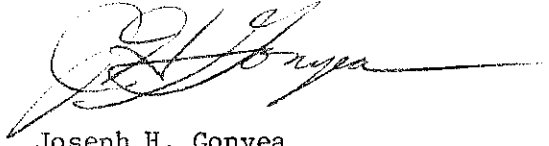
Should the tests produce negative results Timber Products Co. will propose to install either a wet electrostatic precipitator in series with the Burley scrubbers, or to replace the scrubbers with a bag house or other emission control device. If this becomes necessary Timber Products Co. will submit the necessary documentation and request a variance for the period of time necessary to complete the installation.

As you know, Timber Products Co. is taking a positive stance in attempting to control particulate emissions from its Medford area facilities. BWR will complete a full plant emissions test by mid-May, the results of which should be in our hands by mid to late June. The analysis of this data will provide the basis for our overall plant emission control strategy.

In the meantime we are taking steps to reduce fugitive emissions from our Medford plant site. Employee parking lots have been placed closer to dedicated streets thereby reducing the amount of travel over plant roads. Overburden in the form of wood fibers mixed with soil are being removed from the grounds around the plant site and mill pond. Plant roads have been up-graded and water wagons will be utilized during the dry season.

Initial planning is well underway on modifications to the particle board manufacturing facility. Plans and strategies will be finalized prior to the July deadline.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'J. H. Gonyea', with a long horizontal flourish extending to the right.

Joseph H. Gonyea

JHG/sab

cc: F. A. Skiruin
Henry Rust
Alex Austin
William Coffindaffer



Environmental Consultants

EMISSION TEST REPORT

TIMBER PRODUCTS COMPANY

25 E McAndrews

Medford, Oregon

Boiler Fuel Testing

May 20, 1981

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

R E C E I V E D
JUL 13 1981

SOUTHWEST REGION OFFICE

EDWARD C. BUTCHING
598 Vista Park Drive
Eagle Point, Oregon 97524
503/826-5679



Environmental Consultants

EUGENE A. WELLMAN
Route 5 Box 1405
 Klamath Falls, Oregon 97601
503/884-7538

COMPANY NAME: Timber Products Company

25 E McAndrews Medford, Oregon 97501

TYPE OF SOURCE: Hogged-Fuel Boiler

DATE OF TEST: 5-20-81

1.0 EMISSION TEST REPORT:

1.1 Introduction:

On the above date, particulate emission tests were performed for the purpose of comparing emissions from two fuels, firing the boiler on each under similar load conditions.

Tests were performed in accordance with appropriate E.P.A. test methods utilizing an E.P.A. Method 5 sampling train operated under isokinetic conditions.

Particulate loading was found to be .046 & .21 grains per dry standard cubic foot of effluent. Mass emission rate was see 1.5 pounds per hour. Average equivalent opacity was observed to be - percent.

1.2 Description of Source: See Identification & Description Sheet.

1.3 Sampling and Analytical Methods

1.3.1 Field Equipment: 7200 Misco Stack Sampler
Calibrated: 4-18-81

1.3.2 Field Methods: As prescribed in EPA Methods 1, 2, 5, & 9.

1.3.5 Analytical Methods: As prescribed.

1.3.4 Special Problems: _____

1.4 Sample Point Description: See Identification & Description Sheet.

1.2.1

COMBUSTION SOURCE IDENTIFICATION
AND DESCRIPTION SHEET

Name of Company: Timber Products Co.
 Location of Source: East McAndrews
Medford Oregon
 Name of Company Contact: Bill Coffindaffer
 Regulatory Agents Present: None
 Stack Identification: Burley Scrubber Stack- A
 Number of Boilers Ducted to Stack: 1

Sample Point Description:

Circular: X Rectangular: _____
 Diameter: 41.5" Length: _____ Width: _____
 Unobstructed down stream distance: 3'
 Unobstructed upstream distance: 8'

Boiler Identification & Description:

Boiler Identification Number: #1
 Manufacturer: Garrett & Shafer
 Installation Date: 1960 Revision Date: 1980
 Nameplate Capacity: 60,000 lbs/hr @ 265 psig.
 Other Nameplate Data: water walls 2683 ft²

Spreader Stoker: X Dutch Oven _____ Other _____
X F.D. Fan X Multiclone Collector
X Automatic F.D. Control X Wet Scrubber
X I.D. Fan _____ Bag House
X Automatic I.D. Control X Cinder Reinjection
X Automatic Fuel Feed X Sanderdust Burner
X Recording Steam Flow Meter _____ Other _____
X Recording Oxygen Analyzer _____
 _____ Recording Opacity Monitor _____

Steam Generation Rate Data:

Date: <u>5-20-81</u>	Run #1	Run #2	Run #3
Average Steam Flow: lbs/hr	<u>42,000</u>	<u>40,000</u>	_____
Peak steam Flow: lbs/hr	_____	_____	_____
Minimum Steam Flow: lbs/hr	_____	_____	_____
Steam Pressure: psig	_____	_____	_____
How Determined: <u>Steam Flow Chart Included</u>	_____		

EDWARD C. BUTCHINO
598 Vista Park Drive
Eagle Point, Oregon 97524
503/826-5679



Environmental Consultants

EUGENE A. WELLMAN
Route 5 Box 1405
 Klamath Falls, Oregon 97601
503/884-7538

1.5 Detailed Results;

1.5.1 Summary Report

	Test #1	Test #2
Time - Start	<u>0905</u>	<u>1115</u>
Duration - Minutes	<u>60</u>	<u>60</u>
Fuel - w/wo dust or trim	<u>Without</u>	<u>With</u>
Process Rate - lbs/hr	<u>42000</u>	<u>40000</u>
Ave. Stack Temp - F	<u>139</u>	<u>136</u>
Ave. Stack Velocity - fpm	<u>1357</u>	<u>1656</u>
Ave. Stack Flow - scfm	<u>8582</u>	<u>10754</u>
Ave. Stack Moisture - %	<u>20.1</u>	<u>18.4</u>
Filter - #	<u>60</u>	<u>61</u>
Grain Loading - gr/dscf	<u>0.04</u>	<u>0.16</u>
Grain Loading - gr/dscf @ 12% CO ₂	<u>0.046</u>	<u>0.21</u>
Emission Rate - lbs/hr	<u>2.95</u>	<u>15.07</u>
Average Opacity - %	<u>0</u>	<u>>20</u>
Fuel Moisture - % wet basis	<u>43.3</u>	<u>38.5</u>
Isokinetic Rate - %	<u>95.4</u>	<u>90.1</u>

by: Edward C. Butchino
TESTED 5/20/81

Copy - M. Flynn

#



Environmental Consultants

EMISSION TEST REPORT

TIMBER PRODUCTS COMPANY

25 E McAndrews

Medford, Oregon

Boiler

January 26, 1981

EDWARD C. BUTCHINO
598 Vista Park Drive
Eagle Point, Oregon 97524
503/826-5679

**B W
ASSOCIATES
V V R**
Environmental Consultants

EUGENE A. WELLMAN
Route 5 Box 1405
 Klamath Falls, Oregon 97601
503/884-7538

February 25, 1981

Bill Coffindaffer
Timber Products
25 East McAndrews Road
Medford, Oregon 97501

Dear Bill,

The filter catch was analyzed from each boiler scrubber stack tested January 26, 1981. The following table of results is expressed in percent of total by weight.

<u>Compound</u>	<u>STACK</u>			<u>Average</u>
	<u>A</u>	<u>B</u>	<u>C</u>	
CaO	5.0	2.7	3.5	3.73
Na ₂ O	30.0	37.8	23.9	30.57
K ₂ O	15.0	17.0	13.7	<u>15.23</u>
			TOTAL	49.53

The remaining portion was carbon and fly ash. With nearly half of the filter catch in the range of 0.2 to 1.0 micrometer, this reduces your mass median to a critically low number.

If you have any questions, please do not hesitate to call.

With Sincere Regards,



Edward C. Butchino Jr.

c.c.; George Potter
cc: EOHoods AQ/
GHD Row LES

EDWARD C. BUTCHINO
598 Vista Park Drive
Eagle Point, Oregon 97524 ☐
503/826-5679

BWA
ASSOCIATES
WR
Environmental Consultants

EUGENE A. WELLMAN
Route 5 Box 1405
☐ Klamath Falls, Oregon 97601
503/884-7538

COMPANY NAME: Timber Products Company
25 E McAndrews Medford, Or 97501

TYPE OF SOURCE: Boiler

DATE OF TEST: 1/26/81

1.0 EMISSION TEST REPORT:

1.1 Introduction:

On the above date, particulate emission tests were performed for the purpose of demonstrating compliance with applicable air contaminant discharge regulations.

Tests were performed in accordance with appropriate E.P.A. test methods utilizing an E.P.A. Method 5 sampling train operated under isokinetic conditions.

Results indicate that the above source isn't in compliance with emission regulations. Particulate loading was found to be 0.099 grains per dry standard cubic foot of effluent. Mass emission rate was 28.35 pounds per hour. Average equivalent opacity was observed to be --- percent.

1.2 Description of Source: See Identification & Description Sheet.

1.3 Sampling and Analytical Methods

1.3.1 Field Equipment: 2) 7200 Misco Stack Sampler
Calibrated: 12/80

1.3.2 Field Methods: As prescribed in EPA Methods 1, 2, 5, & 9.

1.3.3 Analytical Methods: As prescribed.

1.3.4 Special Problems: _____

1.4 Sample Point Description: See Identification & Description Sheet.

1.2.1

COMBUSTION SOURCE IDENTIFICATION
AND DESCRIPTION SHEET

Name of Company: TIMBER PRODUCTS

Location of Source: MEDFORD

MCANDREWS ROAD

Name of Company Contact: BILL COFFINAKEEER

Regulatory Agents Present: LARRY JACK DEQ

Stack Identification: 3 - Busley Scrubbers

Number of Boilers Ducted to Stack: 1 Boiler - 3 stacks

Sample Point Description:

Circular: X

Rectangular: _____

Diameter: 41.5"

Length: _____ Width: _____

Unobstructed down stream distance: 3'

Unobstructed upstream distance: 8'

Boiler Identification & Description:

Boiler Identification Number: #1

Manufacturer: GARRETT & SHAFER

Installation Date: 1960 Revision Date: 1980

Nameplate Capacity: 60,000 lbs/hr @ 265 psig.

Other Nameplate Data: WATER WALLS 2683 ft²

H.S. - BOILER 5971 ft²

Spreader Stoker: X Dutch Oven _____ Other _____

X F.D. Fan X Multiclone Collector

X Automatic F.D. Control X Wet Scrubber

X I.D. Fan _____ Bag House

X Automatic I.D. Control X Cinder Reinjection

X Automatic Fuel Feed X Sanderdust Burner

X Recording Steam Flow Meter _____ Other _____

X Recording Oxygen Analyzer _____

_____ Recording Opacity Monitor _____

Steam Generation Rate Data:

Date: 1-26-81 Run #1 Run #2 Run #3

Average Steam Flow: lbs/hr 52000 55000 _____

Peak steam Flow: lbs/hr _____

Minimum Steam Flow: lbs/hr _____

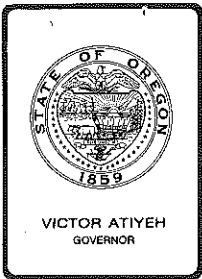
Steam Pressure: psig _____

How Determined: AVERAGES - STEAM FLOW CHART

1.5 Detailed Results

1.5.1 Summary Report

STACK:	RUN 1			RUN 2			AVERAGE
	<u>A</u>	<u>B</u>	<u>C</u>	<u>A</u>	<u>B</u>	<u>C</u>	
Time-Start	1133	1133	--	--	1530	1530	--
Duration-min.	80	80	--	--	80	80	80
Ave. Stack Temp ^o F	149.9	152	146	146.3	154.3	152.2	150.1
Ave. Stack Velocity -fpm	2011	2115	1901	1746	1952	1983	1951.3
Ave. Stack Flow -scfm	11376	11682	10823	9406	10377	10895	10760
Ave. Stack CO ₂ %	11.1	11.1	11.1	9.98	9.98	9.98	10.54
Grainloading gr/dscf	0.097	0.099	--	--	0.098	0.102	0.099
Grainloading gr/dscf @ 12% CO ₂	0.105	0.108	--	--	0.118	0.122	0.113
Emissions #/hr	9.5	10.0	--	--	8.7	9.5	--
Isokinetic Rate %	105.0	106.2	--	--	109.3	104.5	106.3
Emissions Total #/hr	--	--	--	--	--	--	28.35
Ave. Stack Moisture %	26.7	28.2	--	--	30.6	28.6	28.5



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Agenda Item No. N, August 28, 1981, EQC Meeting

Request for Concurrence in Approval of a Solid Waste Disposal Permit for the Troutdale Landfill

Background

The Troutdale Landfill was originally started under the name of Obrist Landfill in 1972. Don Obrist, Inc., was issued a Solid Waste Disposal Permit on November 29, 1972 and the site was operated as a modified landfill until January, 1980. During that period, many permit violations were documented including but not limited to accepting unauthorized wastes, failure to follow the operational plan, etc. Due to unresolvable differences between the landfill operator and the City of Troutdale, the landfill ceased operations before reaching final grades. The City of Troutdale took ownership of the disposal site and applied to re-open the landfill.

A new operational plan was prepared to address several existing and/or potential environmental and safety hazards. First, the disposal site borders a platted subdivision. If residences are built on this property and final cover is placed on the existing fill, hazardous conditions could develop because of off-site migration of methane gas. The development of this subdivision has been delayed principally because of the potential gas migration problem. The subdivision developer has filed a lawsuit against the city of Troutdale, Don Obrist, METRO, Department of Environmental Quality, et al for loss of revenue. This lawsuit is still pending. The proposed operational plan includes provisions for a gas collection system to prevent methane migration.

Secondly, the disposal site, formerly a sand and gravel pit, is situated on an alluvial terrace underlain by unconsolidated sedimentary materials that constitute a highly productive groundwater aquifer (the East Multnomah County Aquifer). The recent alluvial deposits, and the underlying Troutdale formation represent a composite groundwater system generally

described as separate deep and shallow aquifers. The degree of hydraulic connection between the shallow and deep aquifers is very difficult to predict, however, because of the complex bedding of these sedimentary materials. There is expected to be some degree of hydraulic connection at extended distances. The deep aquifer yields water of excellent quality and is presently used as a drinking water source by the City of Troutdale and other cities and communities in east Multnomah County. The shallow aquifer is being used primarily for irrigation purposes.

Commission review and approval for reopening of the Troutdale Landfill is requested because the Department is proposing to require less than the highest and best practicable measures for control of leachate at the site.

Alternatives and Evaluation

The Department is recommending reopening of the disposal site only to facilitate proper closure. Proper closure will minimize the generation of leachate by limiting percolation of incident rainfall through the solid wastes. In addition, the potential off-site migration of methane gas would be prevented. To further minimize leachate production, the types of solid wastes to be allowed for landfilling is to be quite restrictive and disposal would be limited to commercial haulers (i.e., the public would not be allowed on the site).

Additional landfilling may adversely impact the shallow aquifer within the landfill boundaries and possibly downgradient. This aquifer is being used principally for irrigation purposes. The City of Troutdale has agreed to provide water hook-up for the few remaining homes on private domestic water wells as a precautionary measure. Well samples taken recently have shown some shallow groundwater degradation within and immediately adjacent to the landfill. To determine the degree of hydraulic connection between the shallow aquifer and the deeper aquifer, we requested the City of Troutdale to perform a 72-hour pump drawdown test on one of their municipal wells. The results of the test, though, were somewhat inconclusive. This means that filling the site (even with restricted materials) would involve some risk. The Department of Water Resources and DEQ staff believe that the risk of serious water quality degradation of the deep aquifer is not great, however. It is believed that ultimately the water quality would stay within federal EPA drinking water standards. Monitoring wells have been installed near the site perimeter to provide early detection of off-site leachate migration in the shallow aquifer. It should also be noted that the closest city well is used only as a reserve water source and would only be pumped on a limited basis.

Department staff have identified the following alternatives for the Commission to consider:

1. Direct staff to require the highest and best practicable treatment and control of leachate for the Troutdale Landfill in accordance with the proposed Groundwater Protection Policy.

This alternative would require the construction of an impermeable liner on the bottom of the landfill and a collection system to allow

removal of the leachate with final disposal into the Troutdale sanitary sewer. This alternative seems impractical and unreasonable since over two-thirds of the landfill bottom area is already filled with solid wastes and approximately one-third of the volume of the pit is filled with solid wastes. The cost to provide a positive leachate collection and disposal system under these circumstances would be prohibitive.

2. Direct the staff to deny the solid waste disposal facility permit application.

This alternative would mean that the Department would have to resort to enforcement action against the city to have the site properly closed. It is possible to properly close the site without additional filling by redistributing and regrading the existing fill material. The City of Troutdale, however, states that monies do not exist to properly close the site without the revenue that further filling would bring. Also, the ultimate use of the property would be limited if the site remains essentially a bowl.

3. Direct the staff to issue a solid waste disposal permit which includes the following:
 - a. Requires the installation of a passive gas venting system that can be readily converted to an active system with provisions to positively incinerate the gases.
 - b. Requires that the completed fill be properly sloped and covered and that storm drainage systems be provided to minimize leachate generation.
 - c. Restricts materials to be disposed of at the site. Limits the operation to a short period, August 1985. However, allows the City of Troutdale and METRO to request an extension of up to 8 years of total landfill life, until August, 1989, if an economic and waste flow analysis so warrants.
 - d. Requires that a groundwater monitoring network be established with quarterly sampling to determine and track the environmental impacts of the landfill.

This alternative is economically feasible, will minimize the generation of leachate and prevent the off-site migration of methane gas. The proposed Groundwater Protection Policy provides that the Commission may approve less stringent measures where circumstances so warrant.

The Department believes that this proposal is substantially different from the earlier Columbia Sand and Gravel request to fill a site at 122nd and San Rafael in Portland. That was a proposed new site and there were other sites that offered less risk of serious groundwater contamination. The Troutdale site is already partially filled and the existing and potential problems appear to be best managed by proper completion of the fill. It

should be noted, however, that if a permit application was submitted for a new landfill site having hydrogeologic characteristics similar to the Troutdale area, the staff would recommend denial to best protect the groundwater resource and the current beneficial uses.

Summation

1. The existing, inactive Troutdale Landfill cannot be economically closed without additional filling. Proper closure is needed to minimize leachate generation and prevent the off-site migration of methane gas. The City of Troutdale "inherited" this problem and does not have money to correct it. Also, closure without additional filling would result in contours that would limit future land use.
2. Requesting the highest and best practical leachate control strategy, in strict compliance with the Department's proposed Groundwater Quality Protection Policy, would cause economic hardship to the city and would be difficult to implement. (Refer to Attachment D for review of 340-41-029 as proposed.)
3. Staff, with the support of the Water Resources Department, believes that less stringent controls than those identified in the proposed Groundwater Protection Policy are prudent and will adequately protect the underlying groundwater. Adoption of less stringent controls is referenced in the proposed policy as an alternative which the EQC may approve.
4. The approval of proper landfill closure at this site does not seem inconsistent with the Commission's earlier denial of a proposed new landfill with similar potential environmental problems.
5. A proposed solid waste disposal facility permit (Attachment E) has been drafted which addresses the important environmental issues.

Directors Recommendation

Based upon the summation, it is requested that the Commission concur with the Department's intent to approve the proposed plan and issue a permit to allow interim operation and proper closure of the Troutdale Landfill.


WILLIAM H. YOUNG

Attachments:

- A. Area map showing location of Troutdale Landfill
- B. Water Resources Department memorandum
- C. Groundwater monitoring well locations and test results
- D. Proposed Rule 340-41-029--General Groundwater Protection Plan
- E. Proposed Solid Waste Disposal Facility Permit - Troutdale Landfill

Charles H. Gray:c
229-5288
RC145 (1)
August 6, 1981

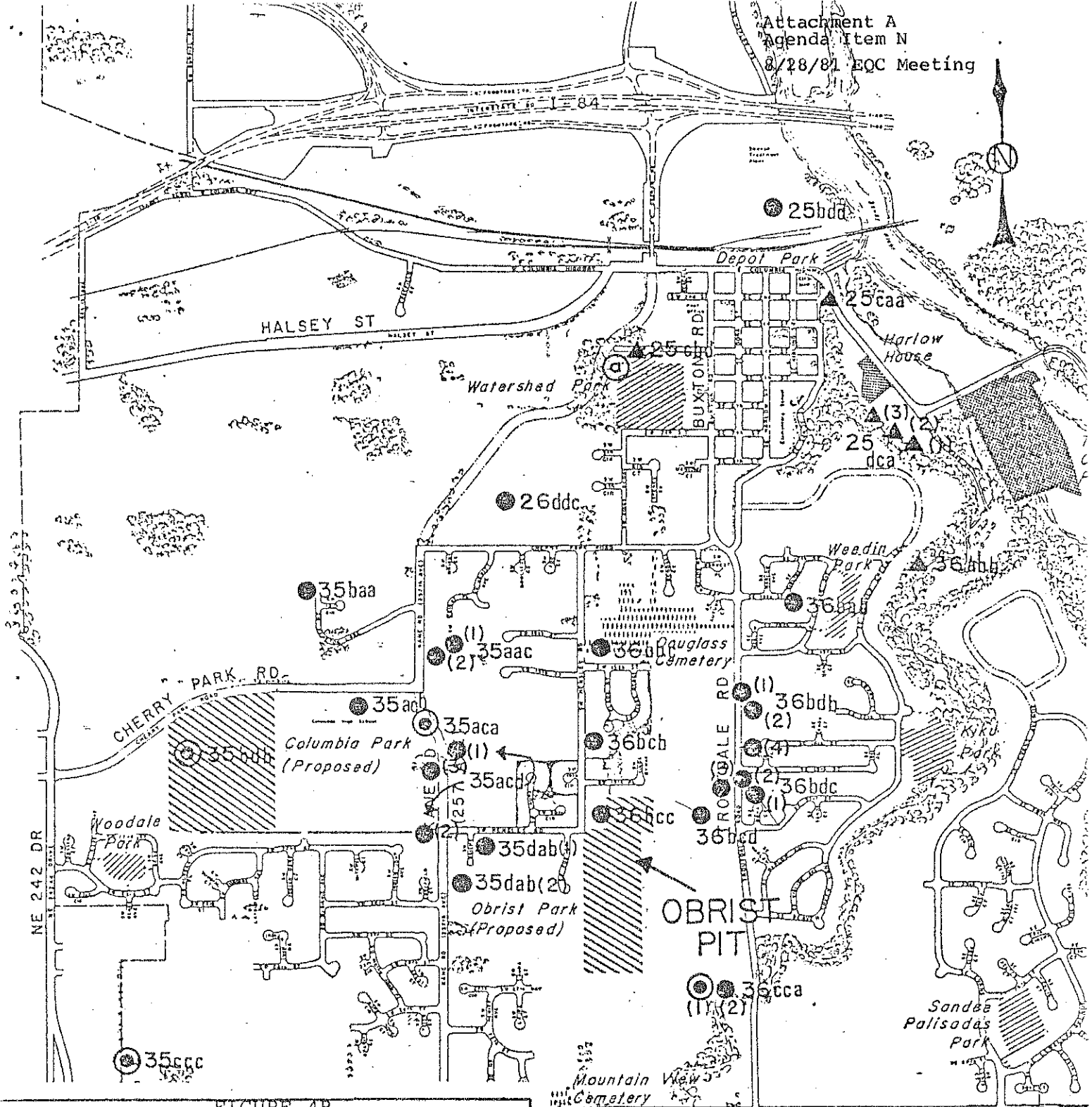
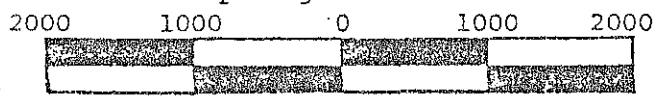


FIGURE 4B
 OBRIST PIT - WELL LOCATIONS

- 36cca(1) Well or Spring Number
- ----- Well
- ⊙ ----- Well, Municipal
- ⊕ ----- Proposed Municipal Well
- ▲ ----- Spring



Scale in Feet



STATE OF OREGON



Attachment B
Agenda Item N

INTEROFFICE MEMO
8/28/81 EDC/MLC/ing

TO: CHARLES H. GREY
DEQ NORTHWEST REGION

DATE: FEBRUARY 17, 1981

FROM: WILLIAM S. BARTHOLOMEW
WATER RESOURCES DEPARTMENT -- SALEM

SUBJECT: SOUTHWEST TROUTDALE LANDFILL SITE -- MULTNOMAH COUNTY

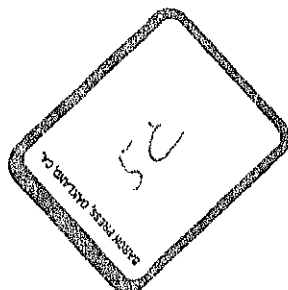
We have reviewed the draft copy of the design and operation plan for the Troutdale landfill site located in Section 36, Township 1 North, Range 3 East, WM, Multnomah County. The landfill has been constructed in old gravel pits excavated in fluviolacustrine deposits adjacent to Beaver Creek south of Troutdale, Oregon.

The re-opening of this site, for deposit of demolition waste only, should not create a major problem or leachate generation. I understand that public dumping will be prohibited. The existing pit is to be filled and graded with non-putrescible waste materials prior to final grading and compacted cover.

I do not expect leachate from demolition wastes, added to this site, to be of equal or greater hazard than that already generated at the site. The gravel and sand deposits do represent a sensitive aquifer system. It is doubtful if new sites in these materials would satisfy the terms of the proposed Ground Water Protection Policy under consideration by the EQC at this time. In preparing the site for future abandonment, the operator must properly fill and level the site for beneficial land uses. It is my understanding that the landfill operator will install two monitoring wells on the northeast portion of the fill area. With these wells and careful management practices, the Troutdale landfill should not create any new threat to ground water pollution of the deeper aquifers in the area.

Kent's memo of December 16, 1980 seems to reflect his view of an expanded site, disposal of putrescible wastes, and public access to the property. With the constraints mentioned in your memo dated January 27, 1981, I withdraw our request for extensive pumping tests on the deeper aquifer system. I expect the gravel aquifers of this area to be a composite system with some degree of hydraulic connection at extended distances. The local perching of the shallow wastes bearing zones indicates some protection to the deeper aquifers at this site. Therefore, I support the completion or closing phase of the Troutdale landfill as proposed in the plan dated April 1980.

3935A



Dept. of Environmental Quality
RECEIVED
FEB 23 1981

NORTHWEST REGION



Attachment B
Agenda Item N
8/28/81 EQC Meeting


Water Resources Department
MILL CREEK OFFICE PARK
555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-8455 or
1-800-452-7813

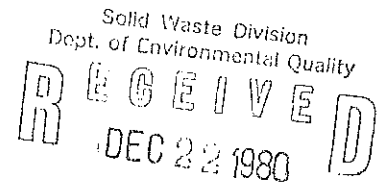
MEMORANDUM

December 16, 1980

TO: Bob Gilbert
Northwest Regional Manager
Department of Environmental Quality
Portland, OR

FROM: Kent Mathiot 

SUBJECT: Troutdale Landfill



CONCLUSIONS:

The Troutdale area has hydrogeologic characteristics that have been identified as being poorly suited to the location and operation of a solid waste disposal site. Contamination of the ground water in the shallow aquifer beneath the existing Troutdale Landfill has been confirmed, but the potential for this contamination to affect deeper ground water systems cannot be determined without conducting expensive studies that are not within the economic scope of any of the concerns involved in the project. It is assumed, however, that additional placement of putrescible materials at the fill site will increase the level and duration of contamination in the shallow aquifer, and increase the potential for negative impacts on deeper ground water systems.

There are several technical factors that indicate a potential for the degradation of deeper ground water zones from surface sources. Because of this, and because of the tremendous value of the ground water resource in the Troutdale area, strict ground water protection measures should be adopted.

RECOMMENDATIONS:

- (1) At least two additional shallow monitoring wells should be constructed on the east side of the existing fill. These wells will be downgradient from the disposal area and will provide additional information on the level and extent of contamination in the shallow ground water aquifer.

- (2) An extended (72 hours) pumping test should be conducted on at least one of the city's production wells. During this test frequent measurements of the pumping level in the production well and the static levels in nearby "shallow" wells should be made. This very basic type of test should by no means be considered a comprehensive aquifer test, but it may provide some information on the potential interconnection of the deep and shallow systems, and on the effect of induced gradients on local ground water flow patterns.

NOTE: [Wells 36 cca (1) and (2) may be suitable for this type of test]

- (3) No additional waste disposal should be allowed at the site with the possible exception of strictly controlled placement of non putrescible materials.

POLICY CONSIDERATIONS:

Extensive work during the past few years has resulted in an increased awareness of ground water quality protection needs, and has helped the DEQ sharpen the focus of their goals and policies in this area. The interim policy adopted by the EQC in April of this year, and numerous DEQ statements on solid waste disposal practices have identified hydrogeologic conditions such as are found in the Troutdale area as being poorly suited for the siting of solid waste disposal facilities.

The most environmentally acceptable way of dealing with existing sites in these sensitive areas is to close them out with as little additional filling as possible, but the City of Troutdale has proposed closure plans that call for extensive additional filling. These plans, while recognizing the existing ground water contamination problem, and the potential for increasing that problem simply propose a well abandonment program to deal with the eventuality of contaminant migration to existing private wells. To my knowledge this is a proposal without precedent, and is not in compliance with solid waste disposal and ground water protection policies and guidelines.

TECHNICAL CONSIDERATIONS:

I agree with the statements presented by Lee Engineering, and Sweet Edwards and Associates, Inc., that the hydrogeologic conditions in the Troutdale area limit the potential for contamination of ground water in the Troutdale Formation by surface sources. However, I do not feel that the Troutdale Formation/Fluviolacustrine Deposits-interface can be considered a continuous impermeable horizon that will, in all cases, prevent downward migration of contaminants.

None of the information that has been provided to the Water Resources Department has included comprehensive aquifer test data. Several aquifer tests, requiring new well construction and a considerable amount of time and equipment, would be needed to understand the complex nature of the ground water system in the Troutdale area. This type of study would be very expensive, and money for such a project is not available to the City of Troutdale or any of the involved regulatory agencies.

Without the benefit of aquifer test data, judgements on resource protection practices must be based on the best available technical information. However, the value of the ground water resource and the lack of a complete understanding of the ground water system warrants a conservative approach, that includes strict resource protection guidelines.

My review of the best available technical information has led me to the following conclusions:

- (1) Any cemented or other low permeability zone in the Troutdale or Fluvio-lacustrine Deposits will most likely be laterally discontinuous.
- (2) Numerous wells have been constructed that penetrate both the shallow and deep ground water zones, and no attempt has been made to construct these wells in a manner that would prevent the interconnection of these zones.
- (3) An analysis of the static levels in wells completed in the Troutdale aquifer does not demonstrate the existence of any artesian head that would reduce the potential for downward migration of contaminants into this aquifer.
- (4) There is an identified but not totally evaluated contamination problem in the shallow aquifer beneath the existing disposal site.
- (5) At least one of the City's wells completed in the Troutdale aquifer showed an anomalous decline in static water level in the summer period following the 1976-1977 winter drought. This quick response would tend to indicate the connection of this aquifer to a local recharge source.

cc: Bill Dana ✓
DEQ Portland
3258A

Attachment C
Agenda Item N
8/28/81 EQC Mtg.

Lee Engineering, Inc.

Consulting Engineers

708 MAIN, SUITE 202
OREGON CITY, OREGON
PH. 503-655-1342

May 22, 1981

F. DUANE LEE P.E.
DAVID A. LEE P.E.
JAMES G. SMITH P.E.

Project No. 163.1

Mr. Charles H. Gray
Department of Environmental Quality
P.O. Box 1760
Portland, Oregon 97207

Dept. of Environmental Quality

R E C E I V E D
MAY 26 1981

Re: Troutdale Landfill - Aquifer Test Results

NORTHWEST REGION

Dear Mr. Gray:

The Aquifer and Groundwater Monitoring Program for the Troutdale Landfill outlined in our letter of March 25, 1981, and acknowledged by your letter of April 16, 1981, was initiated on April 20, 1981. Daily readings of the static water level in the two existing monitoring wells were initiated on that date. Drilling of the two new monitoring wells commenced on April 23, 1981, and was completed on May 7, 1981. Copies of drill logs for the four wells are attached for your review.

Four monitoring wells were used during the aquifer test. Two wells drilled in March of 1980 are located within the fill area of the landfill site; the two new wells which were drilled during early May 1981 are located on the public right-of-way of S.W. Kendall Court immediately east of the landfill. Actual locations are shown on the attached topographic map.

The four wells have initial drilling depths of 40 to 80 feet. Finish depths of the wells vary from 24 to 50 feet. All have static water levels within plus or minus one foot of elevation 220. Pumping capacities reported vary from 5 gpm to 40 gpm. This data is summarized for your review on an attached sheet.

The actual pumping test started at 9:44 a.m. on May 11, 1981, (Monday) and was terminated at 9:45 a.m. on May 14, 1981 (Thursday). A semi-log plot of the time vs. drawdown curve is attached. A pumping rate of 250 gpm was established after close examination of the original pump test data so as to prevent over pumping and cavitation of the well during the test period.

The four observation wells were monitored at six-hour intervals throughout the 72-hour test pump period. The readings were taken with a standard electrical cable and contact electrode apparatus. Those readings showed some minor fluctuations in static water level during the week proceeding the test but no detectable fluctuations during the actual 72-hour test period.

Data was collected for an additional 24-hour period so that a well recovery curve could be plotted. Since no drawdown was detected at the observation wells, no recovery data is possible.

Mr. Charles H. Gray
Page 2
May 22, 1981

A water sample for chemical analysis was taken from the City's production well during the first hour of pumping and a comparison sample was taken during the last hour of pumping. Laboratory test results will not be known for approximately ten days.

Water samples have been collected from each of the four monitoring wells to determine chemical quality. The results of the laboratory analysis will be compared with prior data and in the case of the two new wells, will be used as base data for future monitoring of possible contaminate levels or leachate migration.

It is our conclusion, as a result of this test, that no apparent or detectable intertie exists between the shallow surface aquifers (above elevation 180) and the deeper aquifer (below elevation -120) that is currently being used by the City of Troutdale as a source of municipal water supply. The potential for future detrimental contamination of the lower groundwater resource as a result of proposed landfill operation, involving no putrescible waste, appears to be remote. A periodic sampling program is recommended so that the water quality of the shallow aquifer can be monitored and any possible increases in contaminate levels can be detected.

If you have any questions about the test that was conducted or the data furnished, please do not hesitate to call.

Sincerely,

LEE ENGINEERING, INC.

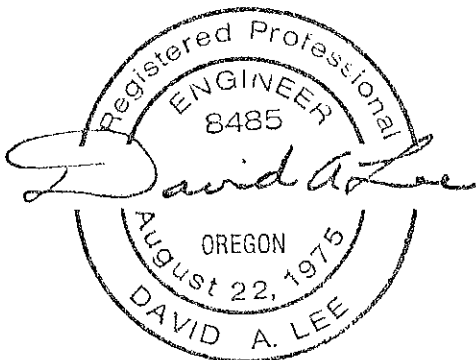


David A. Lee, P.E.

Attachments

DAL:d1j

cc: City of Troutdale
Water Resources Department



RECEIVED

JUL 13 1981

EXHIBIT NO. 3

Characteristics of Existing and Future City Water Supply Wells

NORTHWEST REGION

A major concern expressed by DEQ staff relative to the City of Troutdale's application for a fill permit is the potential for an adverse effect upon the deep water aquifer which the City utilizes as its source of municipal water supply. The potential for impact is relative not only to the physical characteristic of the aquifer and surrounding geology, but also the location of the municipal wells relative to the landfill site, the anticipated rate of withdrawal of water from the well and the duration of pumping.

The City of Troutdale has developed a supply network consisting of six wells. Each well or group of wells is used to maintain the water levels in four separate storage reservoirs. The operation of each well is controlled by a telemetry system which automatically responds to changes in the water level within a storage reservoir. Thus, if any given reservoir level drops below a predetermined point, a primary production well is turned on. If system demand exceeds the capacity of the primary well and the level continues to drop, then a second well is activated. In like manner a third well may be turned on. All wells would remain on until the reservoir was returned to a full level.

Each pressure zone in the City will be supported by a storage reservoir and two or more wells. The total number of wells required has been based upon being capable of supplying maximum daily demand which was selected as three times average daily demand. Thus, each well in the system will be required to cycle on and off several times per day, but will not normally run more than 8 to 12 hours in any 24-hour period. During periods of low demand, some wells would not run at all, but would be held in reserve to meet peak demands only.

The current system configuration has well nos. 1, 2 and 3 all pumping into the Stark Street reservoir located near Stark Street and 242nd Avenue. Well no. 2 which is located near the reservoir and almost 4,900 feet southwest of the landfill site is the primary well source. Well no. 3 is the secondary well and well no. 1 (Drinker well) is the reserve well.

After well nos. 4 and 6 are completed (completion is anticipated for July and November 1981, respectively), it is unlikely that the Drinker well will be used except as a reserve capacity. These new wells are both located more than 4,000 feet from the landfill site. Both well nos. 6 and 7 are separated from the landfill site by the Beaver Creek canyon.

The current demonstrated capacity of the City's wells represents approximately 75% of its ultimate needs. Thus, only two more wells with yields of 500 gpm or more need be constructed in the future. It is anticipated that one well be constructed to the west of the site close to well no. 2 and the final well would be constructed more than 5,000 feet to the northwest on the old Multnomah County Farm property.

Again, it is our feeling that the proposed construction details and system operation will minimize the potential of artificially increasing leachate contamination of the deep aquifer underlying the Troutdale landfill.

EXHIBIT II

Amendment to May 22, 1981 letter to
Charles Gray from Dave Lee.

Amend the first sentence of Paragraph 9 to read:

"No apparent or direct intertie between the shallow surface aquifers (above elevation 180 feet) and the deeper aquifer (below elevation -120 feet) that is being used currently by the City of Troutdale as a source of municipal water supply has been revealed by the results of these tests.

Lee Engineering, Inc.

Consulting Engineers

708 MAIN, SUITE 202
OREGON CITY, OREGON
PH. 503-655-1342

F. DUANE LEE P.E.
DAVID A. LEE P.E.
JAMES G. SMITH P.E.

June 11, 1981

Project No. 163.1

Dept. of Environmental Quality

RECEIVED
JUN 12 1981

Mr. Charles H. Grey
Department of Environmental Quality
P.O. Box 1760
Portland, Oregon 97207

NORTHWEST REGION

Re: City of Troutdale Landfill
Aquifer Test & Groundwater Monitoring Program

Mr. Grey:

Attached is the vicinity map you requested showing the proposed landfill site, established monitoring wells and the City's municipal wells. The scale of this map should provide the necessary overview and shows relative locations of the monitoring wells and the landfill site.

Also attached are the laboratory analysis results of samples taken during the aquifer test. The first sample from the Drinker Well was taken during the first hour of the drawdown test. The second sample from the production well was taken just prior to shutdown or approximately 71-1/2 hours after pumping commenced.

Each of the observation wells was pumped with a small submersible unit until the discharge visibly cleared before a sample was taken. The initial discharge from monitoring well no. 1 was almost black and had a significant organic or iron smell. As pumping continued, the color turned to gray, then pale green and then began to clear. The well was pumped for approximately 30 minutes at 15 gpm. The odor diminished as the discharge cleared. This condition was anticipated since the well had not been pumped since March 1980, when it was constructed.

Monitoring well no. 2 was not sampled because recent rain had made access with the generator and pump impossible.

Monitoring wells no. 3 and 4 were each pumped approximately 20-30 minutes. The discharge from these wells was initially brown. This again was anticipated since development during construction was by bailing only. Since these wells are assumed to be down gradient from the landfill, we felt pumping would produce the most representative samples of the water in the shallow aquifer.

Mr. Charles H. Grey

Page 2

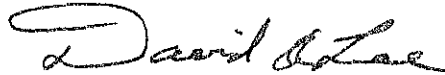
June 11, 1981

It is significant to note that all the wells except monitoring well no. 1 satisfy water quality standards sufficient to serve as drinking water. Well no. 1 also would have met minimum standards if pumping had been continued for an additional 15-30 minutes.

If you have any questions about the testing procedure or the data furnished, please do not hesitate to call.

Sincerely,

LEE ENGINEERING, INC.

A handwritten signature in cursive script that reads "David A. Lee". The signature is written in dark ink and is positioned above the typed name.

David A. Lee, P.E.

DAL:dlj

Enclosures

cc: City of Troutdale
Water Resources Department

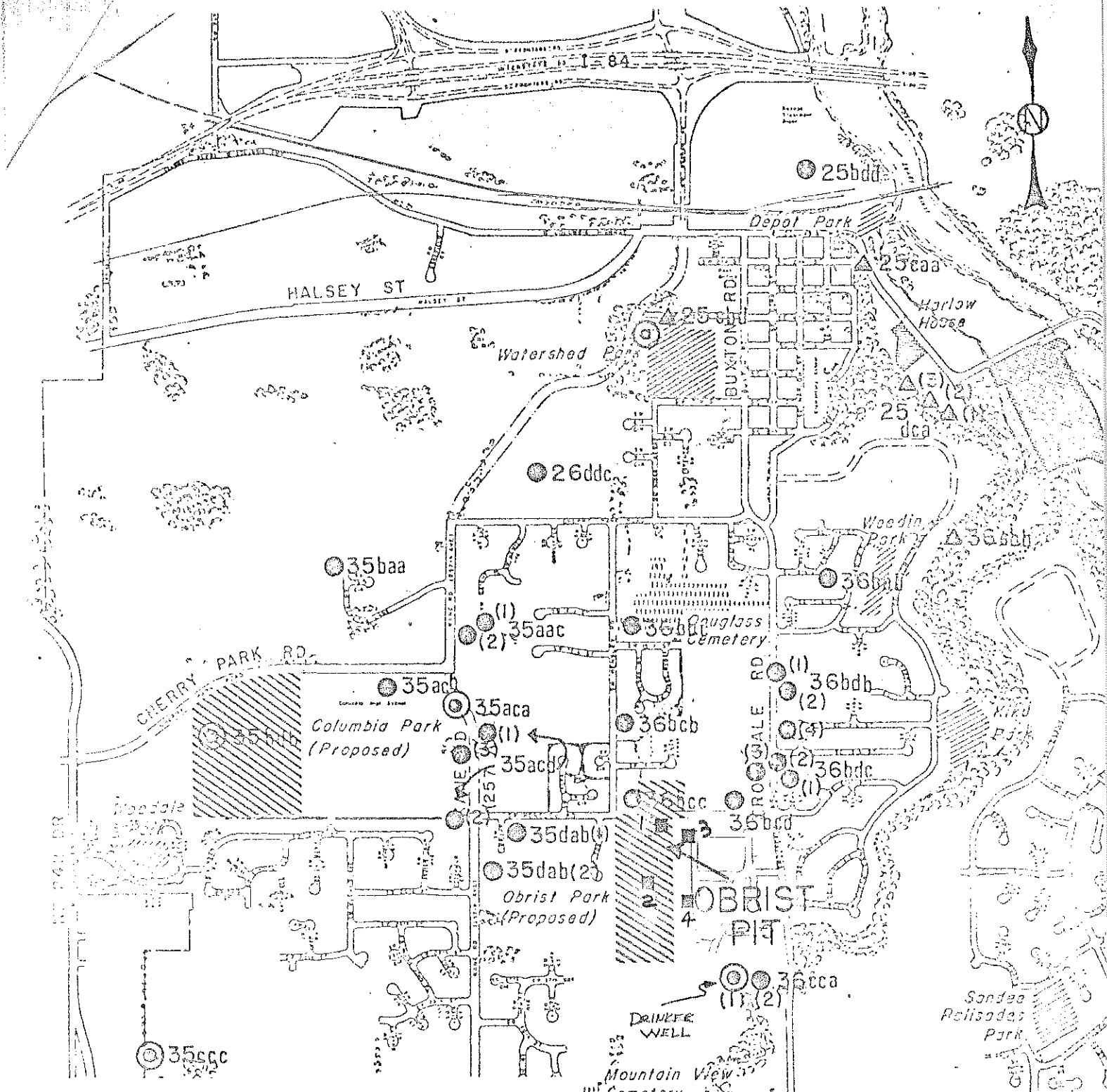


FIGURE 4B
OBRIST PIT - WELL LOCATIONS

- 36scc(1) Well or Spring Number
- Well
- ⊙-----Well, Municipal
- ⊖-----Proposed Municipal Well
- △-----Spring ■-----Monitoring Wells

2000 1000 0 1000 2000



Scale in Feet

PROPOSED ADDITIONS TO OAR CHAPTER 340
DIVISION 41
STATEWIDE WATER QUALITY MANAGEMENT PLAN

I. Amend OAR 340-41-006 to add a new definition as follows:

Definitions

340-41-006 Definitions applicable to all basins unless context requires otherwise:

.
.
.

- (17) "Nonpoint Sources" refers to diffuse or unconfined sources of pollution where wastes can either enter into-or be conveyed by the movement of water to-public waters.

II. Add a new Section of Policy as follows:

340-41-029

GENERAL GROUNDWATER QUALITY PROTECTION POLICY

The following statements of policy are intended to guide federal agencies and state agencies, cities, counties, industries, citizens, and the Department of Environmental Quality staff in their efforts to protect the quality of groundwater:

PLANNING POLICIES

- (1) It is the policy of the EQC that within its responsibilities for the regulation and control of waste sources, such activities be conducted in a manner so as to minimize the impairment of the natural quality of groundwater within practicable limits to protect presently recognized beneficial uses and assure protection of the resource for beneficial use by future generations.
- (2) For the purpose of making the best use of limited staff resources, the Department will concentrate its control strategy development and implementation efforts in areas where waste disposal practices and activities regulated by the Department have the greatest potential for degrading groundwater quality. These areas will be delineated from a statewide map outlining the boundaries of major water table aquifers prepared in 1980 by Sweet, Edwards & Associates Inc. This map may be revised periodically by the Water Resources Department.
- (3) In order to assure maximum reasonable protection of public health, the public should be informed that groundwater--and most particularly local flow systems or shallow groundwaters--should not be assumed to be safe for domestic use unless quality testing demonstrates a safe supply. Domestic water drawn from shallow aquifers should be tested frequently to assure its continued safety for use.

- (4) The Department will seek the assistance and cooperation of the Water Resources Department to design an ambient monitoring program adequate to determine long-term quality trends for significant groundwater flow systems. The Department will assist and cooperate with the Water Resources Department in their groundwater studies. The Department will also seek the advice, assistance, and cooperation of local, state, and federal agencies to identify and resolve groundwater quality problems.
- (5) The EQC recognizes that orderly financing and implementation of a long-range groundwater improvement and protection plan may necessitate some increased quality degradation for a short period of time. The EQC may approve a groundwater protection plan which allows limited short-term further degradation provided:
- (a) Beneficial use impairment will not be significantly increased,
 - (b) Public health risk is not significantly increased,
 - (c) Irreparable damage to the groundwater resource does not occur,
 - (d) The groundwater protection plan has been duly adopted as part of the comprehensive planning processing by the responsible local government,
 - (e) A financing plan has been developed and adopted to assure implementation, and
 - (f) The responsible local government has committed to implement the program in accordance with a timetable which is included in a written agreement with the EQC.

PROGRAM POLICIES

- (6) Consistent with general policies for protection of surface water, highest and best practicable treatment and control of sewage, industrial wastes, and landfill leachates, shall be required so as to minimize potential pollutant loading to groundwater. Among other factors, energy, economics, public health protection, potential value of the groundwater resource to present and future generations, and time required for recovery of quality after elimination of pollutant loadings may be considered in arriving at a case-by-case determination of highest and best practicable treatment and control. For areas where urban density development is planned or is occurring and where rapidly draining soils overlay local groundwater flow systems and their associated shallow aquifers, the collection, treatment and disposal of sewage, industrial wastes and leachates from landfills will be deemed highest and best practicable treatment and control unless otherwise approved by the EQC pursuant to (7) or (8) below.

- (7) Establishment of controls more stringent than those identified in paragraph 6 above may be required by the EQC in situations where: (1) DEQ demonstrates such controls are needed to assure protection of beneficial uses; (2) the Water Resources Director declares a critical groundwater area for reasons of quality; and (3) EPA designates a sole source aquifer pursuant to the the Federal Safe Drinking Water Act.
- (8) Less stringent controls than those identified in paragraph 6 above may be approved by the EQC for a specific area if a request, including technical studies showing that lesser controls will adequately protect beneficial uses is made by representatives of the area and if the request is consistent with other state laws and regulations.
- (9) Disposal of wastes onto or into the ground in a manner which allows potential movement to groundwater shall be authorized and regulated by the existing rules of the Department's Water Pollution Control Facility (WPCF) Permit, Solid Waste Disposal Facility Permit, or On-site (Subsurface) Sewage Disposal System Construction Permit, whichever is appropriate.
- (a) WPCF permits shall specify appropriate groundwater quality protection requirements and monitoring and reporting requirements. Such permits shall be used in all cases other than for those covered by Solid Waste Disposal Facility Permit or On-site (subsurface) sewage disposal permits.
- (b) Solid Waste Disposal Facility Permits shall be used for landfills and sludge disposal not covered by NPDES or WPCF permits. Such permits shall specify appropriate groundwater quality protection requirements and monitoring and reporting requirements.
- (c) On-site Sewage Disposal System Construction permits shall be issued in accordance with adopted rules. It is recognized that existing rules may not be adequate in all cases to protect groundwater quality. Therefore, as deficiencies are documented, the Department shall propose rule amendments to correct the deficiencies.
- (10) Where groundwater quality is being degraded by waste disposal practices, the Department will require individual sources to improve or modify waste treatment and disposal practices as necessary to reduce the pollutant loading to groundwater. Such requirements will be implemented by permit condition or repair order as appropriate. For areas where an areawide approach is essential (rather than an individual approach), the Department will seek cooperation of the responsible local government to develop and implement a groundwater protection plan to abate the problem. A written agreement should be used in such cases to delineate the planned correction. A written agreement should be used in such cases to delineate the planned correction program and timetable. The Department will resort to more formal pollution abatement actions such as abatement orders and civil penalties only if voluntary compliance efforts within a specified time frame are not successful.

- (11) In order to minimize groundwater quality degradation potentially resulting from nonpoint sources, it is the policy of the EQC that activities associated with land and animal management, chemical application and handling, and spill prevention be conducted using the appropriate state of the art management practices ("Best Management Practices").
- (12) The EQC recognizes and supports the authority and responsibilities of the Water Resources Department and Water Policy Review Board in the management of groundwater and protection of groundwater quality. In particular, existing programs to regulate well construction and to control the withdrawal of groundwater provide important quality protective opportunities. These policies are intended to complement and not duplicate the programs of the Water Resources Department.

ELQ:1
WL609 (1)
7/30/81

DRAFT

Permit Number: 213
Expiration Date: 8/31/85
Page 1 of 7 Pages

Attachment E
Agenda Item N
8/28/81 EQC Mtg.

SOLID WASTE DISPOSAL PERMIT

Department of Environmental Quality
522 Southwest Fifth, Portland, OR
Mailing Address: Box 1760, Portland, OR 97207
Telephone: (503) 229-5913

Issued in accordance with the provisions of ORS Chapter 459

ISSUED TO:

City of Troutdale
104 Kibling Street
Troutdale, OR 97068

FACILITY COVERED BY THIS PERMIT:

FACILITY NAME:

Troutdale Landfill

FACILITY TYPE AND LOCATION:

Demolition Landfill
Sec. 35, T 1N., R 3E., W.M.
Multnomah County

OWNER: City of Troutdale

OPERATOR: City of Troutdale

ISSUED IN RESPONSE TO: An application received July 30, 1980.

ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY

WILLIAM H. YOUNG, Director

Date

Permitted Activities

Until such time as this permit expires or is modified or revoked, the permittee is authorized to establish, operate, and maintain a disposal site for the handling of solid wastes in conformance with the requirements, limitations, and conditions set forth in attached schedules as follows:

	<u>Page</u>
Schedule A--Authorized and Prohibited Activities	2
Schedule B--Minimum Monitoring and Reporting Requirements	3
Schedule C--Compliance Conditions and Schedules	3
Schedule D--Special Conditions	5
General Conditions	7

This permit does not relieve the permittee from responsibility for compliance with other applicable federal, state, or local laws, rules, or standards.

SCHEDULE A

Authorized and Prohibited Activities

1. The permittee is authorized to accept only the following wastes:
 - a. Land clearing debris - including stumps, limbs, branches, leaves, dirt and rock.
 - b. Building demolition and construction wastes - including lumber, concrete rubble, asphalt, brick, sheetrock, insulation material, metal ductwork, window glass, tar paper, carpet, tile, formica, packing boxes (corrugated) for construction materials (including appliances), etc.
 - c. Yard debris - including prunings, leaves, sod and grass cuttings.
 - d. Selected industrial waste - subject to DEQ approval on a case-by-case basis. Examples include wood waste, slag and roofing materials.

No other wastes shall be accepted unless specifically authorized and confirmed in writing by the Department.

2. The following wastes shall not be accepted or disposed of at this site:
 - a. Domestic waste - including food waste, food containers and utensils, clothes, toys, tools, furniture, appliances, drapery, reading materials, automobile parts, bedding, packaging materials for the above, etc.
 - b. Commercial waste - wastes emanating from stores, markets, restaurants, financial and business offices, theaters, etc.
 - c. Hazardous waste - materials that may be toxic, corrosive, explosive, infectious, highly flammable or otherwise dangerous or injurious to human, plant or animal life. Examples include pesticides (and containers), solvents, oils, chemicals, hospital wastes, dead animals, etc.
 - d. Liquids - including sewage sludges and septic tank pumpings
3. No burning of any material shall be conducted or allowed at the disposal site. Accidental fires shall be immediately extinguished and reported to the Department's Northwest Region office at 229-5263.
4. Salvaging and recycling are authorized, if controlled so as to not interfere with optimum disposal site operation and to not create unsightly conditions or vector harborage.
5. The general public shall be excluded from using the landfill unless specifically authorized in writing by the Department.
6. The permittee shall not cause contamination of any municipal water supply source.

SCHEDULE B

Minimum Monitoring and Reporting Requirements

1. The permittee shall effectively monitor the disposal site operation and maintain records of the following required data to be submitted to the Department of Environmental Quality:

<u>Item or Parameter</u>	<u>Minimum Monitoring Frequency</u>
a. Cubic yards of solid waste deposited	Monthly
b. All monitoring wells shall be sampled for the following parameters: 1. Color 2. pH 3. Alkalinity 4. Hardness 5. Conductance 6. Chemical Oxygen Demand 7. Iron 8. Chloride 9. Sulfate 10. Ammonium	Quarterly
c. All monitoring wells shall be sampled for applicable state and federal drinking water standards	Annually
d. Unusual occurrences affecting disposal site operation	Each occurrence

2. Monitoring results shall be reported on approved forms. The reporting period is the calendar quarter. Reports must be submitted to the Department's Northwest Region office by the 15th day of the month following the end of each quarter.

SCHEDULE C

Compliance Conditions and Schedules

1. The disposal site shall be constructed and operated in accordance with plans which were approved in writing August , 1981, by the Department of Environmental Quality and any subsequent amendments thereto approved in writing by the Department.
2. Prior to July 1, 1982, the permittee shall inventory all current down-gradient users of the shallow groundwater aquifer and provide municipal water for domestic water supply purposes for those users. The completed inventory and connections list shall be submitted to the Department by July 1, 1982.

3. In the event that the permittee does not proceed with design, construction, and operation of the proposed Troutdale Landfill during the period of this permit, all prior approvals granted by the Department of Environmental Quality shall be considered void and no work or facility operation shall commence until the Department has reevaluated the proposed project in light of any changes in conditions or standards and has issued a new permit incorporating such additional or revised conditions as may be necessary.
4. Prior to depositing solid waste in the existing low area, the permittee shall fill the area to an elevation of 215 feet with compacted inert material approved by the Department.
5. Prior to October 1, 1981, a passive gas venting system, which can be readily converted to an active system with provisions to positively incinerate the gases, shall be installed. This system must be approved in writing by the Department.
6. Additional groundwater monitoring wells and sampling may be required by the Water Resources Department and the Department of Environmental Quality if groundwater degradation is detected in the existing wells.
7. Prior to use of the facility, the permittee shall record a deed restriction with the requirement that the property owner shall operate and maintain the gas venting and disposal system, groundwater and gas monitoring system, and storm drainage system, and also maintain the final grade of the site in accordance with the approved plans and Department of Environmental Quality standards.
8. The fill shall be completed at the earliest practicable date not to exceed August 1, 1985, unless an economic and waste flow analysis by Metro and the City of Troutdale indicates otherwise. This analysis shall be completed by February 1, 1982. If, upon review, the Department is in agreement with the analysis, an extension shall be granted. However, final closure shall occur as soon as practicable but by no later than August 1, 1987.
9. Upon completion, the permittee shall submit inspection and certification by the design engineer that the construction of the landfill's gas venting, storm drainage, groundwater and gas monitoring systems and other aspects of the project comply with the plans and specifications as approved by the Department.
10. The permittee shall submit a final storm drainage and grading plan at least two years prior to the expected closure date of the site. Said plan shall provide for proper closure of the site within six (6) months after ceasing disposal activities at the site and provide for disposal of storm drainage outside of the fill area.
11. The permittee is expected to meet the compliance dates which have been established in this schedule. However, the Director may revise a schedule of compliance if he determines good and valid cause resulting from events over which the permittee has little or no control. Either prior to or no later than 14 days following any lapsed compliance date the permittee shall submit to the Department a notice of compliance or noncompliance with the established schedule.

SCHEDULE D

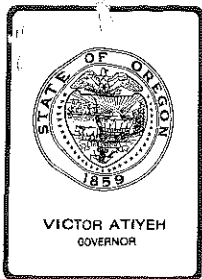
Special Conditions

- | <u>1. Required Activities</u> | <u>Minimum Frequency of Performance</u> |
|---|---|
| a. Spread and compact all solid waste deposited. | Daily |
| b. Cover all wastes deposited with not less than six (6) inches of compacted earth or other approved cover material. | Weekly |
| 2. Unloading of solid waste shall be confined to the smallest practicable area. | |
| 3. Blowing debris shall be controlled such that the entire disposal site is maintained free of litter. | |
| 4. A layer of not less than two (2) feet of compacted earth, in addition to intermediate cover material, shall be placed over the completed fill following the final placement of solid waste. At least one foot of the final two-foot layer shall be compacted earth with a permeability rating of 10^{-6} cm/sec or less. The final cover shall be graded, seeded with appropriate ground cover, and maintained to prevent cracking, erosion, and ponding of water. | |
| 5. Solid wastes other than tire, rock, dirt, brick, concrete rubble, and similar nondecomposable materials shall not be deposited directly into the groundwater table or in flooded trenches or cells. | |
| 6. Any leachate which breaks out on the surface of the landfill shall be controlled so as to prevent malodors, public health hazards, and escapement of surface leachate to public waters. | |
| 7. The disposal site shall be so located, sloped, or protected that drainage will be diverted around or away from the active operational area and discharged off-site. All drainage ways, natural or excavated, shall be maintained to provide free flow of surface water at all times. | |
| 8. Dust, malodors, and noise shall be controlled so as to comply with the Department's rules pertaining to air pollution and noise control. | |
| 9. Public access to the landfill shall be controlled by fences, natural terrain features of the site, or other measures as necessary to preclude unauthorized entry and dumping. | |
| 10. Salvaged materials such as corrugated paper, white goods, car bodies, and other materials shall be stored away from public view to the extent practicable. Storage areas shall be maintained in an orderly manner and salvaged materials shall be removed at sufficient frequency to avoid creating nuisance conditions, vector harborage, or safety hazards. | |

11. Rodent and insect control measures such as baiting and insecticide spraying shall be provided as necessary to prevent vector production and sustenance.
12. Access and on-site roads shall be maintained to prevent traffic hazards and excessive dust and shall provide for all-weather passage of vehicles.

General Conditions

- G1. The term "disposal site" is used in this permit as defined by ORS 459.005.
- G2. The conditions of this permit shall be binding upon, and the permittee shall be responsible for all acts and omissions of, all contractors and agents of the permittee.
- G3. In the event that the disposal site is to be closed permanently or for an indefinite period of time during the effective period of this permit, the permittee shall provide the Department of Environmental Quality written notice at least 30 days prior to closure, of the proposed time schedule and closure procedures.
- G4. The disposal site operation shall be in strict compliance with Oregon Administrative Rules, Chapter 340, Division 6, regarding storage, collection, transportation, and disposal of solid waste.
- G5. Sufficient equipment in good operating condition and adequate to construct and operate the disposal site in accordance with the approved operational plan shall be available at all times.
- G6. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and reporting functions required to ensure compliance with the conditions of this permit.
- G7. At all times the disposal site and all equipment and facilities shall be operated at maximum efficiency and in a manner which will minimize discharges to the air and public waters and prevent health hazards and nuisance conditions. The Department may reasonably regulate the hours of site operation as it finds necessary to ensure compliance with this requirement.
- G8. In the event a breakdown of equipment, flooding, fire, sliding, or other occurrence causes a violation of any conditions of this permit or of Oregon Administrative Rules, Chapter 340, Division 6, the permittee shall:
 - a. Immediately take action to correct the unauthorized condition or operations.
 - b. Immediately notify the Department of Environmental Quality so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken.
- G9. Authorized representatives of the Department of Environmental Quality and local or State Health Agency having jurisdiction shall be permitted access to the premises of the waste disposal facility owned or operated by the permittee at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, and carrying out other necessary functions related to this permit.
- G10. This permit is subject to termination if the Department of Environmental Quality finds:
 - a. That it was procured by misrepresentation of any material fact or by lack of full disclosure in the application.
 - b. That there has been a violation of any of the conditions contained herein.
 - c. That there has been a significant change in the quantity or character of solid waste received or in the method of solid waste disposal.
- G11. This permit, or a photocopy thereof, shall be displayed where it can be readily referred to by operating personnel.



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. O, August 28, 1981, EQC Meeting

Proposed Adoption of Amendments to Solid Waste Management Rules, OAR 340-61-005, 61-010, 61-020 and 61-025 through 61-040

Background and Problem Statement

At the July 17, 1981, Commission meeting, the staff presented proposed amendments to the Department's solid waste management rules for adoption (a copy of that staff report is attached). Mr. Roger Emmons, representing Oregon Sanitary Service Institute, testified at the meeting and presented a request for 14 changes in the proposed rules. In addition, the Commission expressed some concern about the degree to which the rules might restrict residential composting. As a result, the Commission voted to delay action on the staff's proposal until today's meeting.

The staff has made some revisions in the proposed rules in response to the comments made at the July meeting and is again seeking adoption. The Commission is authorized to adopt such rules by ORS 459.045. A "Statement of Need for Rulemaking" is attached.

Alternatives and Evaluation

The staff has reviewed Mr. Emmons' written testimony (copy attached) and has agreed to the following changes in the proposed rules:

1. Section 340-61-020(3) has been revised to make it clear that the Department may issue compliance schedules at any time that a violation of the rules occurs and not just to facilities that were in existence when the rules were adopted.
2. Section 340-61-040(5) has been revised to specify that groundwater monitoring, when required, shall occur at some point between the edge of the fill and the property line if there is sufficient room.

3. Rule 340-61-027 has been changed to confirm that the Department may deny a request for a Letter Authorization if the applicant fails to demonstrate sufficient need.
4. Subsections 340-61-025(5)(d) and 340-61-040(1)(d) have been changed to require that permit applicants estimate the maximum daily and average annual quantities of waste that will likely be received at a proposed disposal site.
5. Subsection 340-61-040(1)(a) has been changed to confirm that the Department will only require that on-site surveying benchmarks be tied to the State Plane Coordinate System where such accuracy is deemed essential.
6. Subsection 340-61-040(1)(c) has been changed to require that permit applicants need only to describe the design assumptions and methods used to determine the sizing of pumps, pipes, culverts, etc. The rule had previously required a display of the design calculations.

In response to another of Mr. Emmons' concerns, the staff obtained an informal legal opinion from the Department of Justice regarding the Department's authority to regulate disposal sites following closure. Legal counsel agreed that such authority does exist under ORS 459.045.

The staff did not agree to the other changes which Mr. Emmons requested. Verbal testimony concerning these disagreements was presented by the staff at the July meeting. Also, several items are discussed in the attached "Response to Public Comment."

In regard to the issue of residential composting, subsection 340-61-020(2)(c) has been amended such that owners, renters, lessees, etc., may compost wastes generated at their residence regardless of its size (i.e., duplexes, apartments, etc.). The rule as previously drafted would only have permitted composting at a single family residence unless a permit was obtained.

Summation

1. The staff presented proposed amendments to the Department's solid waste management rules at the July 17, 1981, Commission meeting.
2. The Commission voted to delay action on the proposed rules, due to a large number of changes requested by Oregon Sanitary Service Institute and because of Commission concern about the regulation of residential composting.
3. Staff has made some revisions to the proposed rules in response to comments made at the July meeting and is again seeking adoption.
4. The Commission is authorized to adopt solid waste management rules by ORS 459.045.

EQC Agenda Item No. O
August 28, 1981
Page 3

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt the proposed amendments to the Department's solid waste management rules, OAR 340-61-005, 61-010, 61-020 and 61-025 through 61-040.

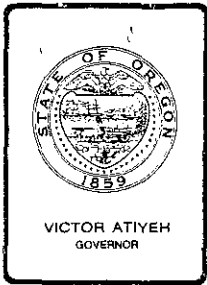
Bill

William H. Young

Attachments

- (1) Staff report, Agenda Item No. T, July 17, 1981, EQC Meeting
- (2) Letter from Roger Emmons, Oregon Sanitary Service Institute
- (3) Statement of Need for Rulemaking
- (4) Hearing Officer's Report
- (5) Department's Response to Public Comment
- (6) Proposed Rules, OAR 340-61-005, 61-010, 61-020 and 61-025 through 61-040

W.H. Dana:c
SC395
229-6266
August 6, 1981



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. T, July 17, 1981, EQC Meeting

Proposed Adoption of Amendments to Solid Waste Management Rules, OAR 340-61-005, 61-010, 61-020 and 61-025 through 61-040

Background and Problem Statement

The Department's current solid waste management rules were adopted in March 1972. These rules no longer accurately reflect the Department's philosophies and policies, nor current state-of-the-art in proper solid waste management. In addition, certain sections of the rules have been found to be somewhat vague and confusing, while other sections have been found to be unworkable and have not been strictly enforced.

The current rules are also not consistent with national landfill criteria recently adopted by the U.S. Environmental Protection Agency, pursuant to the Resource Conservation and Recovery Act of 1976 (RCRA). On January 30, 1981, the Commission adopted a State Solid Waste Management Plan which the Department developed in accordance with RCRA requirements. The plan calls for adoption of revised rules, consistent with EPA's landfill criteria, as soon as possible. The Commission is authorized to adopt such rules by ORS 459.045. A "Statement of Need for Rulemaking" is attached.

Alternatives and Evaluation

One alternative to amending these rules as proposed is to continue with the existing rules. This alternative was considered and rejected, because the Department believes that an effective program requires rules which reflect current policy and best available environmental protection strategies.

In addition, failure to adopt rules consistent with the federal criteria might cause some landfill owners and operators to be subjected to two different sets of standards which may be conflicting. Further, failure to implement the recently adopted State Solid Waste Management Plan would make some landfill operators and the Department vulnerable to citizen suit under the provisions of RCRA.

In proposing these rules, a draft was prepared based upon the Department's experiences with the current rules, EPA's landfill criteria and a review of current rules from fifteen other states. Initial drafts were reviewed by a task force of fourteen people representing DEQ headquarters and regional staff, landfill operators from private industry and local government, and consultants specializing in solid waste disposal site design and construction. Later drafts were also reviewed by the Department's Enforcement Section and legal counsel from the Department of Justice.

Following the April 24, 1981 Commission meeting, at which authorization to conduct a hearing was granted, copies of the proposed amendments were mailed to 82 individuals on the division's advisory group and to 24 DEQ staff members around the state. A hearing notice was mailed to an additional 144 permittees, including industry and local government, and to the news media. On May 19, 1981, a public hearing was conducted in Portland.

Written and/or oral comments were received from 23 individuals. The staff evaluated these comments and a number of changes have been made in the proposed rules. The attached "Hearings Officer's Report" and "Response to Public Comment" summarize the comments received and the staff's response.

The proposed rule amendments include the following major provisions:

1. An expanded list of definitions for the purpose of clarity.
2. A more detailed explanation of the roles and responsibilities of the Department and applicants in the permitting process.
3. An expanded description of the information to be included in a permit application.
4. A provision that the Department may waive the requirements for detailed plans and specifications, a feasibility study report and construction certification for low-volume, low-risk disposal sites. Current rules include no such provision.
5. A provision that applications for new or expanded disposal sites include evidence of need. Current rules include no such provision.
6. A provision that the Department may require major or critical construction projects at landfills be certified as properly completed by the permittee's engineer. Currently, the Department has responsibility for checking construction.
7. The establishment of groundwater contamination limits for landfills consistent with the Department's proposed Groundwater Protection Policy (essentially a federal standard). Currently, there are no state groundwater standards.
8. A clarification of the Department's authority to require permittees to collect and analyze samples of groundwater, surface water and landfill gases where deemed necessary and practicable. Current rules give general authority to require reporting, but do not specifically address groundwater, surface water or gas monitoring.

9. A provision that the Department may require the weighing of incoming loads of refuse at a disposal site, to facilitate planning decisions related to resource recovery, transfer and landfill siting. Current rules include no such provision.
10. A restriction on the types of waste which may be open burned at a landfill, to allow burning of only tree stumps and limbs, brush, timbers, lumber and other wood waste (federal standard). Current rules also allow open burning of cardboard and other bulky combustibles.
11. The establishment of standards for landfill operators pertaining to protection of endangered species, control of landfill decomposition gases and the prevention of bird hazards to aircraft (federal standards). Currently, there are no state standards in these areas.

Summation

1. Existing rules, written in 1971, no longer adequately reflect current policy and state-of-the-art in the field of solid waste management.
2. Existing rules are not consistent with new federal landfill standards.
3. In January 1981, the Commission adopted a State Solid Waste Management Plan which calls for the adoption of updated rules.
4. The staff has drafted amendments to the rules which are intended to overcome current deficiencies and requests authority to conduct a public hearing.
5. The Commission is authorized to adopt solid waste management rules by ORS 459.045.

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt the proposed amendments to the Department's solid waste management rules, OAR 340-61-005, 61-010, 61-020 and 61-025 through 61-040.

Bill

William H. Young

Attachments

- (1) Statement of Need for Rulemaking
- (2) Hearing Officer's Report
- (3) Department's Response to Public Comment
- (4) Proposed Rules, OAR 340-61-005, 61-010, 61-020 and 61-025 through 61-040

SSI

Oregon Sanitary Service Institute

4645 18th Pl. S., Salem, Oregon 97302 Phone 399-7784

Attachment 2
Agenda Item No. O
8/28/81 EQC Meeting

Research
Standards
Service

July 17, 1981

OREGON ENVIRONMENTAL QUALITY COMMISSION

SOLID WASTE MANAGEMENT RULES

We agree with staff on the need to update the nearly ten year old rules. We agree on the need to meet minimum federal standards necessary to keep control in Oregon and not at federal level.

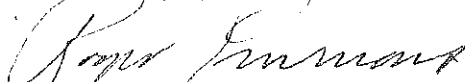
Our concerns are generally on the detail required or which may be required. With all due respect to your present staff, there is a great deal of discretionary authority involved. Pushed to or near the limit, the regulatory process becomes needlessly expensive, time consuming and expensive without increased environmental protection benefits.

Without violating laws or rules, we believe that a discretionary authority should allow for alternative technology, systems, facilities, operations, engineering and approaches. We are proposing a specific section to implement this concept.

For clarity, our proposed changes and amendments are in the order of appearance in the regulations, not in our order of priority or importance.

We believe the changes are necessary, are constructive and do justify the short additional time involved in making them.

Sincerely yours,


Roger Emmons,
Executive Director

CC: President Ezra Koch
Angus MacPhee
Bill Webber
Bruce Bailey

SOLID WASTE MANAGEMENT RULES, PROPOSED CHANGES, (ROUGH DRAFTED)

1. Open Dump. Any facility for the disposal of solid wastes that doesn't comply with the rules is an "open dump" and is prohibited. A compliance schedule is authorized by ORS 459.225 (1) and 61-020 (3) of the rules for existing sites. In either a closure permit or a permit to upgrade an existing site, the compliance schedule would specify the time and requirements that must be met.

We believe that all sites with significant, substantial and continuing environmental problems should be placed on a closure and compliance schedule, a closure and upgrade schedule or be closed. Those who make the investment necessary to properly close or to upgrade the site should be protected if they stick to the compliance schedule. And there is no legitimate excuse for not enforcing the regulations against those that won't accept responsibility and comply...lest the Department and Commission be accused of selective enforcement.

It's not our policy to encourage deliberate violation of the rules or law, but what about sites in the future? There may be an unintentional violation. A condition may develop that needs to be rectified. Or the best answer for a necessary public use site may be to give a reasonable time to clean up its act.

Action Recommended. Establish policy for the record on compliance schedules or enforcement as the two alternatives.

In the rule, 61-020 (3), P. 10, delete "which were existing at the time of adoption of these rules".

Determine as a matter of law if the Department may exercise this authority where it appears that action of the Commission is required by ORS 459.225 (1).

2. When is a Permit Required. Since even changes in disposal sites may require permits, we need clear guidance and believe that both state and regional staffs should have uniform guidelines. What does "substantially alter, expand or improve" a disposal site mean? Who makes that determination? Who has authority to approve changes orally, orally confirmed in writing, operational plan amendments or by other means short of a permit amendment for a "substantial" change.

Action Recommended. We agree that staff should prepare general guidelines and procedures for all to follow. They should be reviewed with the regions and with public and private disposal site operators so that they are informed. No change in rules would be required.

3. Solid Waste Boundary. We have no problem with the definition as being the edge of the solid waste in 61-010 (33), p. 8.
- We don't have a problem with monitoring wells, where necessary and required, being placed at the solid waste boundary if the landfilled wastes run right up to or over the property line.

In all other cases, monitoring at the solid waste boundary under 61-040 (5) (a) (B), p. 25 touching the garbage or wastes is a useless waste of money. We all know what you would find in the well samples.

Recommended Action. In 61-040 (5) (b) on page 25, revise to read: "Where monitoring is required, the Department (may) shall specify an alternative boundary between the solid waste boundary and the property line if adequate room exists and based on a consideration of all of the following factors:"

4. Letter Authorizations. The whole regional landfill concept promoted by the Commission and the Department is get enough solid waste and dollars in one place to do an environmentally acceptable job of handling those wastes.
- Implicit in that costly burden for local government and private sites is the assurance all citizens, haulers, businesses, industries and government agencies or units will share the cost.

Too often, letter authorizations have been used to allow on or off site dumps to benefit a single disposer. In at least one instance, disposal quotes were obtained from the nearest permitted landfill and were added to bid costs. Then a dump was used to avoid the costs and the money saved was pocketed by the dumper.

Not every landclearing project or special condition requires wastes to be taken to a disposal site. But this exemption from what everyone else has to pay should be an extraordinary remedy used with special care.

Your staff has even sought an informal opinion of the Attorney General to back the requirement that new disposal sites meet the test of public need which of course includes economic need. Contrast that standard to a mere "discussion of the need and justification for the proposed project." 61-027 (1) (b), p. 15.

Recommended Action. In 61-027, revise the rule to read: "The Department may authorize the temporary operation of a disposal site as an extraordinary remedy where there is a complete justification of the need and necessity for the action by issuing a 'letter of authorization' subject to the following:"

61-027 (1) (b). "(A discussion of the need and justification for the proposed project) A justification of the need and necessity for the proposed disposal site including, without limitation, existing disposal sites that could dispose of the solid wastes."

61-027 (2) "Upon receipt of a complete written application, the Department (Option: Commission) may approve or disapprove the application if it (is satisfied) finds that:

"(a) (The applicant has demonstrated sufficient need and justification for the proposal) There is or is not a need

to create a new disposal site.

- "(b) The proposed (project) disposal site is or is not likely to cause a public nuisance, health hazard, air or water pollution or other environmental problem.
- "(3) Prior to approval, the Department shall notify existing disposal sites in the service area of the proposed new disposal site and solicit recommendations on the need for a letter authorized disposal site. This requirement may be waived in the event that a public or private emergency exists as determined by the Department.
- "((3)) (4) The Department may deny an application for a letter authorization under subsection (2) or this subsection and may also revoke or suspend an issued letter authorization on any of the following grounds:"
(Renumber the following subsection).

5. Waiver of Requirements. Feasibility studies, plans and specifications and other extremely expensive and time consuming requirements may be waived if environmental problems are not likely. 61-020 (4), p. 10.

Action Recommended. Establish a policy of waiver wherever feasible and establish a simple procedure for applying for and being granted a waiver. No rule change required.

6. Waste Quantities. It is difficult and misleading to establish "daily quantities. Annual quantities should be required and then only on an estimated basis. Until local government determines hours and days of operation of public or private sites, usually one of the last steps, no estimate can be made of daily quantities. Where it appears that substantial seasonal or other variations make a significant difference, the Department can require additional information under 61-025 (2) (e), P. 12-13.

Recommended Action 61-025 (5) (d), P. 14. "... (average total daily quantity of waste materials) average annual estimated quantity of solid wastes that will be received..."

61-040 (1) (d), p. 23. "... (average total daily quantity of waste materials) average annual estimated quantity of solid wastes that will be received..."

7. Public Hearing on a Proposed Site. We understand that this applies only to a new disposal site in 61-025 (6), p. 14.

The word "local" could be construed to mean another hearing at the site itself even though Planning Commission and Council or Board hearings have been held.

The Department should also be qualified to hold the hearing.

Recommended Action. In 61-025 (6), delete "local" and after "public Hearing" insert "within the local government unit having jurisdiction". In the same subsection, after "hearing be held", insert "by the Department or"

8. Denial of Permit based on Solid Waste Plan. We find no place in Oregon law that requires a local government unit to do a solid waste plan. We find no requirement that it be updated. Not all local government units have plans. And the carrot for planning, grants by DEQ from pollution funds, has been terminated by proposed changes in this Legislature (unless there has been a last minute change).

So a needed site or facility could be denied a permit for lack of bad local solid waste planning or the lack of that plan. In addition, a permit could be denied to alter, improve or expand or change the system of disposal based on lack of an updated plan.

Recommended Action. In section 61-026 (1), delete (c) as not authorized by law and not workable. (The proposal is not part of or not compatible with the adopted local solid waste management plan approved by the Department.)

9. Bench Marks as a Basis for Surveying & Enforcement An on-site bench mark should be adequate for all Department requirements except for floodplains or wetland sites where the nearest established bench mark such as a highway can serve.

Recommended Action. No change in 61-030 (1), p. 16, which requires an on-site bench mark.

In 61-040 (1) (a), p. 22: "...horizontal and vertical controls shall be established. (and) Where deemed essential to insure compliance with applicable laws and regulations, an on-site bench mark shall be tied to an established bench near the site. (Where practicable, the bench mark shall be referenced to the Oregon State Plane Co-ordinate System, Lambert Projection.)

10. Design Calculations. Staff indicated they wanted the assumptions used to determine pumps, pipes, facilities and systems. We concur. An example would be the amount of water collected or to be collected in a leachate treatment system. This is different from the actual calculations or a calculator or in a computer.

Recommended Action. In 61-040 (1) (c), p. 22, delete "design calculations" and insert "design assumptions".

11. Types and Weights of Equipment. The Department should establish minimum weights of equipment to do particular jobs. It's obvious you shouldn't be using a toy tractor to get the job of a D-8 done in compacting wastes. The operator should be free to choose between and change operational equipment based on performance statistics and operational experience.

Recommended Action. In 61-040 (1) (d), p. 23, delete "types and weights of equipment". Standards, minimum standards that is, could be determined by the Department.

12. Litter. A permittee should be responsible for blown litter from the site, but not, in any way, for the public who illegally drops, sifts or leaks loads onto public or private property. We want to clarify that position.

Recommended Action. In 61-040 (23) (b), p. 33, after "from the disposal site", delete "and" and insert "or".

13. Signs. The emergency telephone number should be registered with DEQ, local fire department and neighbors. Putting the number of the sign allows the public to harass the operator when the site is closed. And the sign should be limited to those materials that will not be accepted. The list of accepted materials gets too long and is unreadable or unread.

Again, there is a place for a better alternative. At least one operator of several sites uses handouts on what will be accepted. (see our last recommendation)

Recommended Action. In 61-040 (19), p. 30-31, delete "emergency telephone number" and "either will be accepted or".

14. Weighing. Weight has little or no value in landfill planning, design or operation. The same is true of other disposal sites with the exception of resource recovery facilities where input and output are based on tonnage.

We design for and sell space in a landfill. The amount of material we can pack in does not depend upon weight. It depends on how much we can compact the material into the landfill. Concrete weighs heavy, but doesn't compact very well.

Admittedly, volume estimates are not perfectly accurate. But weight means nothing at all for most disposal sites. Scales are another added expense as is the cost of labor and time in weighing.

We have cooperated in voluntary weighing programs in the past and will continue to do so. But we oppose unnecessary public expense and gathering useless statistics.

Recommended Action. Delete 61-040 (25), p. 34, or delete it and insert: "Where the Department finds that it is necessary to plan and design a particular project that incoming loads be weighed, it shall provide the necessary scales and assist the permittee in the weighing."

15. Landfill Closure. Does the Commission and Department have the legal authority to specify post closure requirements on the following: (a) The permittee, (b) The landowner and (c) The transferee of the land. For what period of time?

We testified in support of your bill for financial assurance for post closure, which was not passed by the Legislature. In fact, we contributed to broadening what started as a limited bonding measure on public sites to financial assurance, where necessary, for any sites, including our privately owned or privately operated sites.

We do object in 61-040 (28) (b) to liability in perpetuity of the permittee for erosion, etc. What if the permittee, public or private, only has a limited lease? What if the land changes hands? How can a permittee who no longer has any operation or income from the operation be required to maintain the site?

Recommended Action. See the necessary legal advice suggested by these questions and a legislative remedy if necessary. Delete (28)(b) or revise to limit to about five years as the site stabilizes.

16. Alternatives. We're always looking for a better and less expensive way to accomplish environmental protections. This should be recognized in the regulations.

Recommended Action. Add a new Section 61-041 to read:

61-041 If the Department finds that a proposed alternative technology, system, operation, engineering or approach provides equivalent environmental protection without violating applicable federal statutes, regulations or criteria or Oregon statutes, it shall approve the alternative in meeting the requirements of 61-020 to 61-040 of these rules.

Before the Environmental Quality Commission
of the State of Oregon

In the Matter of the Adoption of) Statutory Authority,
Amendments to Solid Waste) Statement of Need,
Management Rules OAR Chapter 340,) Principal Documents Relied Upon,
Sections 61-005, 61-010, 61-020) and Statement of Fiscal Impact
and 61-025 through 61-040)

1. Statutory Authority: ORS 459.045, which requires the Environmental Quality Commission to adopt rules pertaining to solid waste management.
2. Need for the Rule: Current rules, adopted in March 1972, no longer adequately reflect departmental policy and the state-of-the-art in proper solid waste management. The rules are not consistent with national landfill criteria adopted by the U.S. Environmental Protection Agency, in September 1979, pursuant to Public Law 94-580 (the Resource Conservation and Recovery Act of 1976).
3. Principal documents relied upon in this rulemaking:
 - a. Criteria for Classification of Solid Waste Disposal Facilities and Practices (Federal Register, September 13, 1979)
 - b. Current or proposed new solid waste management rules from fifteen other states.
4. Fiscal Impact:

Positive impacts on economic resources would primarily result from the institution of safer management practices which, if undertaken now, will result in reduced risk of environmental damage and reduced cost for cleanup measures and remedial programs later on.

Although the proposed revisions provide a public benefit of protecting natural resources and public health, they may result in increased costs to permittees and consumers. The extent of these costs cannot be presented in specific detail, however. The revisions would affect permittees statewide and the number of facilities involved would make an analysis of this kind prohibitive.

It should be noted that during 1979-80 the Department conducted an inventory of most landfills which receive domestic garbage using the new federal criteria. Of the 125 sites evaluated, only 31 were found not to be in compliance with these standards. Therefore, the number of domestic waste landfills that will require substantial upgrading or closure to conform to the Department's proposed new rules should not be great. Some industrial waste landfills have also been evaluated and results are similar.

When new landfills are established and when existing landfills are upgraded to conform to the new standards, the increased costs to operators will likely be reflected in increased user fees and/or taxes to consumers. If the costs to operators should prove to be unreasonable, burdensome or impractical, the Commission may grant a variance from these requirements in accordance with ORS 459.225.

Date: April 1, 1981
SC242

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO: Environmental Quality Commission DATE: June 24, 1981

FROM: Gayla Reese, Hearings Officer

SUBJECT: Public Hearing on Amendments to Solid Waste Management Rules

On May 19, 1981, a public hearing was held pursuant to a notice issued May 1, 1981. The hearing was held in Portland at 1:00 p.m. in Room 1400 of the Department's offices at 522 SW 5th.

Ten persons were present. Following an explanation of the purpose of the meeting, five persons gave testimony: Ezra Koch, River Bend Landfill Co.; Bill Webber, Valley Landfills, Inc.; Roger Emmons, Oregon Sanitary Service Institute; Angus MacPhee, Newberg Landfill; and Tom Donaca, Associated Oregon Industries. Others who attended were John Graham, Douglas County Environmental Health; Chuck Kemper, R.A. Wright Engineering; Craig Starr, Lane County; Noel Groshong, Douglas County Environmental Health; and Steve Sander, DEQ Solid Waste Division.

The record was left open until 8:00 a.m., May 26. Additional written and oral comments were received from 19 people: Kent Ashbaker, DEQ Water Quality Division; Ed Quan, DEQ Water Quality Division; Gary Messer, DEQ Willamette Valley Region; Dave St. Louis, DEQ Willamette Valley Region; Frank Ostrander, Counsel for Department of Energy; Howard Mellors, Crown Zellerbach Corp.; L.M. Steffensen, Georgia-Pacific Corporation; Jerry Re, Eugene, Oregon; Ron Baker, DEQ Southwest Region; Randall Hledik, Associated General Contractors; Eugene Gjertsen, consulting engineer; George Morton, APA Environmental Committee; Kenneth Erikson, Douglas County Department of Public Works; Noel Groshong and John Graham, Douglas County Environmental Health; G.A. Kennar, Monsanto Plastics & Resins Co.; T.R. Aspitarte, Crown Zellerbach; Roger Emmons, Oregon Sanitary Service Institute; and Craig Starr, Lane County Solid Waste Management.

Major points from all comments included:

1. General concern with overregulation in the rules, i.e., regulations are too detailed, restrictive, and expensive, especially for rural areas and small private operators. Also, the rules cover business management instead of just environmental protection.
2. Strong opposition to weighing. Landfill operators say it is not important to them.

Public Hearing - Solid Waste Rules Amendments

June 24, 1981

Page 2

3. Dislike of self-monitoring of groundwater. Landfill operators feel that the public would distrust the results; DEQ should monitor the groundwater.
4. Criticism varied on the groundwater standards with comments such as the standards need to be eased and the standards are too lenient.
5. Concern about landfill closure requirements. Suggested closing each area of a landfill as full capacity is reached and periodically reporting the status of closures to DEQ. At time of closure, require additional cover (e.g., four to six feet of soil or clay cap) and land-use plans.
6. Question about the legality and propriety of DEQ requiring a statement of need before a proposed landfill is approved.
7. General opposition to requirement for local approval of a landfill site if DEQ approves it.
8. Desire for separate standards for industrial waste and demolition waste disposal sites.
9. Disapproval of construction certification and feasibility report requirements because they are too expensive and complex.
10. Concern that letter authorizations are too easy to obtain and too permissive. Suggestion was made to place a six-month limit on letter of authorization and require Environmental Quality Commission's approval.
11. Opposition to the definition of "solid waste boundary" included agreement with the need to measure groundwater contamination inside the property boundary, but at some point away from the landfill.
12. Criticism about household composting ranged from those who felt the rule was too lenient to those who felt it was too restrictive.
13. Concern about the standard for odor control; it is too subjective.

Department's Response to Public Comment

The following is a summary of comments received in response to proposed amendments to administrative rules for solid waste management (OAR 340-61-005, 61-010, 61-020 and 61-025 through 61-040) and the Department's responses to those comments:

Comment: Proposed rules are too detailed, restrictive and expensive to comply with, especially for rural areas and small private operators.

Response: The proposed amendments are intentionally more detailed than the current rules. The current rules had been criticized as being somewhat vague and unclear and the intent was to correct this deficiency. The proposed amendments are also admittedly more restrictive and expensive to comply with than the current rules. The current rules were adopted in March 1972 and the state of the art has changed substantially since then. From our review of other states' rules, however, we are convinced that these proposed amendments are not excessively detailed or restrictive. For example, the rules in no way exceed EPA's regulations and the rules are not as stringent as those of several other states in respect to such things as cover frequency, groundwater protection and open burning, among others.

In order to ease the impact of these rules on small operators, the proposed amendments include section 340-61-025(4), which allows the Department to exempt operators of low-volume, low-risk disposal sites from several of the more costly requirements (i.e., detailed engineering plans, engineering construction certification and feasibility study reports). In addition, requirements such as cover frequency, self-monitoring, weighing and others are applied on a case-by-case basis. Nevertheless, in response to the above comments, the Department has further reduced some of the detail from the sections on permit applications, feasibility study reports and special rules pertaining to landfills.

Comment: Weighing is a needless expense. It is not important to landfill operators.

Response: The Department strongly believes that weighing is essential in planning for resource recovery facilities, transfer stations and regional landfill sites. One simply cannot make an intelligent financial analysis of such a proposed facility without accurate data, collected over a period of at least one year to allow for seasonal fluctuations.

Several landfill operators commented that volume estimates were adequate for their needs. Our experience, however, is that volume estimates are highly inaccurate. We suspect that some of the industry's concerns may be based on the fact that weighing will result in higher disposal fees and road taxes for collection vehicles which are carrying more than their rated capacity. In any event, the Department intends to require weighing only at selected landfills where it clearly seems to be in the public's best interest to do so.

Comment: Self-monitoring by permittees is not a good idea. DEQ should do it.

Response: If the Department had unlimited resources, we would agree to do all the monitoring. However, in the face of decreasing staff and resources, the Department feels that it must request some help from those who can reasonably provide it. To help emphasize our intent, this section of the rules has been changed by the addition of the term "where practicable" (e.g., where a permittee has his own lab). Also, to assure quality control, a requirement has been added that allows the Department to periodically split samples with permittees who do self-monitoring.

Comment: Groundwater standards are too lenient/too tough.

Response: The proposed groundwater standards, taken verbatim from the RCRA criteria, met with mixed response. In the final analysis, the Department decided that it could not in good faith accept EPA's position that virtually all groundwater be treated as drinking water. Accordingly, the proposed rule has been amended to conform to the Department's proposed General Groundwater Protection Policy, which is based on the concept of preserving an aquifer's recognized beneficial uses.

It is important to note that this change is not necessarily a weakening of the standard. Where an aquifer is or is likely to be used as a drinking water source, drinking water standards will still apply. Only where an aquifer is unlikely to be used for drinking water will other standards apply.

Comment: Landfills should be closed in phases, as areas reach capacity. Four to six feet of cover, including a clay cap, should be required.

Response: The proposed rule was written with the intent that landfills be required to close each portion when final grade was reached. Apparently the rule was unclear in this regard so it has been redrafted.

With respect to final cover, the Department agrees that additional earth and a clay cap are desirable in some areas of the state, but we do not agree that it is needed at all sites.

The proposed rule has been modified to require that final cover be of a type approved by the Department and suitable for the planned future use (i.e., farm use may require more soil than range land).

Comment: Is a statement of need an appropriate requirement?

Response: The Department obtained an informal legal opinion from the Department of Justice which indicates that such a requirement is reasonable and appropriate under ORS Chapter 459.

Comment: Local approval for a landfill permit is unnecessary red tape.

Response: Recommendations by the local government unit or units having jurisdiction is a statutory requirement (ORS 459.235). In addition, ORS 197.180 and DEQ's Coordination Program with LCDC also require local approval before any new landfill may be established.

Comment: There should be separate rules for industrial waste and demolition waste disposal sites.

Response: The Department agrees that some industrial waste disposal sites and some demolition waste disposal sites pose little threat to the environment. Such facilities may qualify for a special letter authorization or otherwise be exempt from many of the more costly requirements as noted above. We do not agree, however, with the premise that wood waste and demolition wastes are inherently so much less threatening than domestic refuse that separate rules are needed. For example, the most serious landfill-related groundwater contamination problem that we are aware of was associated with a wood waste landfill. Also, the most serious methane gas problem we have encountered was associated with a demolition waste landfill. Our proposed rules, therefore, allow exemptions based on a consideration of several factors, including volume of waste received, site location, geophysical characteristics of the site, climate, etc., and not just waste types.

Comment: Construction certification and feasibility report requirements are too costly and complex.

Response: General comments about overregulation have been addressed above. Construction inspections are something that the staff would like to be able to do. However, in view of shrinking resources, we must shift some of this burden to permittees. The proposed rule has been modified slightly to make it clear that certification will be required only for major or critical construction (e.g., a liner installation).

The feasibility study report section is a good example of why the 1972 rules need to be amended. The current rule is both somewhat vague and incomplete. The proposed new rule is intentionally more detailed and demanding, as it reflects

current philosophy and state-of-the-art. Again, the feasibility report is one of the requirements that the Department may waive for low-volume, low-risk disposal sites.

Comment: Letter authorizations are too easy to obtain and too permissive. They should be issued by the Commission.

Response: Letter authorizations are issued for short-term, low-volume, low-risk disposal operations. The intent is to minimize red tape and delay for the applicant in cases where the Department has little concern regarding potential environmental impact. We believe that EQC approval would cause needless delay and would be a burden to both the staff and the Commission.

We agree that in some cases letter authorizations have been issued too permissively. The proposed rule amendments are therefore considerably more restrictive than the current rules. In response to comments received, the Department is proposing to further restrict letter authorizations by limiting them to six months in duration, rather than one year as originally proposed.

Comment: The definition of "solid waste boundary" should be changed from the edge of the fill material to 50 to 100 feet inside the property line.

Response: The solid waste boundary is the point at which groundwater contamination is monitored, unless the Department specifies some other monitoring point in accordance with certain procedures. Several individuals stated that groundwater should not be evaluated right at the edge of the fill, but at some point inside the property line. We basically agree with this premise. However, landfills are variable and many sites do not have a 50- or 100-foot buffer zone inside the property line.

The proposed definition is the one that appears in the RCRA criteria. We believe that our rules should parallel EPA's to the extent practicable. As noted, the rules provide flexibility in that the Department may specify some sampling point other than the solid waste boundary at those sites where it is appropriate to do so.

Comment: The permit exemption for household composting is too lenient/too restrictive.

Response: Current rules prohibit all household composting unless a permit or a letter authorization is obtained from the Department. This was not an intentional restriction, but is the result of the definition of "disposal site." We believe this is an unreasonable restriction and are proposing to change it.

The rules, as proposed, would have exempted compost piles receiving less than 5 cubic yards of household waste per year. This figure was based on a yard debris survey the Department

conducted in the Portland area. Reviewers criticized this number as being too large and too small. The Department is now proposing to limit composting to single family residences with no specific volume limit. We do not want to completely exempt composting facilities, since a large pile of rotting organic waste can be a severe nuisance.

Comment: Odor control requirement is too subjective.

Response: Landfills can be a source of malodors and at least one site in the Portland area has received numerous complaints in this regard. Odors can be controlled by frequent application of earth cover, positive gas venting and other techniques. Therefore, we believe that a rule pertaining to odor control is appropriate.

This rule, as originally proposed, required that landfill odors not cause a public or private nuisance. We agree that private nuisances are too subjective and have deleted this term from the proposed rule.

SC367

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

PROPOSED AMENDMENTS

OREGON ADMINISTRATIVE RULES

CHAPTER 340 - DIVISION 61

"SOLID WASTE MANAGEMENT"

340-61-005 PURPOSE. The purpose of these rules is to prescribe requirements, limitations, and procedures for storage, collection, transportation, and disposal of solid waste[, pursuant to Chapter 648, Oregon Laws 1971 (HB 1051)].

340-61-010 DEFINITIONS. As used in these rules unless [the context requires] 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) "Baling" means a volume reduction technique whereby solid waste is compressed into bales for final disposal.

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

[(1)] (6) "Commission" means the Environmental Quality Commission.

(7) "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.

[(2)] (8) "Composting" [is] means the process of controlled

[biochemical degradation] biological decomposition of organic solid waste. [under controlled conditions.]

[(3)] (9) "Department" means the Department of Environmental Quality.

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

[(5)] (11) "Director" means the Director of the Department of Environmental Quality.

[(6)] (12) "Disposal site" means land and facilities used for the disposal, [or] handling or transfer of or resource recovery from [of] 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, [salvage sites,] incinerators for solid waste delivered by the public or by a solid waste collection service and composting plants; but the term does not include a facility subject to the permit requirements of ORS [449.083] 468.740; [or] 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.

(13) "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.

(14) "Floodplain" means the lowland and relatively flat areas adjoining inland and coastal waters which are inundated by the base flood.

(15) "Groundwater" means water that occurs beneath the land surface in the zone(s) of saturation.

[(7)] (16) "Hazardous [Solid] Waste" [is solid waste that may, by itself or in combination with other solid waste, be infectious, explosive, poisonous, highly flammable, caustic or toxic or otherwise dangerous or injurious to human, plant or animal life, but does not include Environmentally Hazardous Wastes as defined in Section 1, Chapter 699, Oregon Laws 1971 (Enrolled HB 1931).] 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.

[(8)] (17) "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.

[(9)] (18) "Incinerator" means [a combustion] any device [specifically designed] used for the reduction[, by burning,] of combustible solid wastes by burning under conditions of controlled air flow and temperature.

[(10)] "Land Disposal Site" is a disposal site at which solid wastes are placed on or in the ground for disposal, such as but not limited to landfills, sludge lagoons and sludge spreading areas.]

[(11)] "Modified Landfill" is the disposal of solid waste by compaction in or upon the land and cover of all wastes deposited, with earth or other approved cover material at specific designated intervals, but not each operating day.]

[(12)] (19) "Landfill" [is a general term meaning all landfill operations such as sanitary landfills and modified landfills.] means a

facility for the disposal of solid waste involving the placement of solid waste on or beneath the land surface.

[(13)] (20) "Leachate" [is] means liquid that has come into direct contact with [percolated through] solid waste and contains dissolved and/or suspended contaminants as a result of such contact.

(21) "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.

[(14) "Non-digested Sludge" means the sewage sludge that has accumulated in a digester but due to a lack of environmental control has only partially decomposed.]

(22) "Open Dump" means a facility for the disposal of solid waste which does not comply with these rules.

[(15)] (23) "Permit" means a document [written permit] 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 [specified facilities] disposal site [conduct specified activities, or dispose of solid wastes] in accordance with specified limitations.

[(16)] (24) "Person" means the [United States or agencies thereof, any] state or a public or private corporation, local government unit, public agency, individual, partnership, association, firm, trust, estate or any other legal entity.

[(17)] (25) "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.

(26) "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.

[(18)] (27) "Putrescible [Material] Waste " [is] means solid waste containing organic material that can be rapidly decomposed by microorganisms, which [and] 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.

[(19) "Raw Sewage Sludge" means the accumulated suspended and settleable solids of sewage deposited in tanks or basins mixed with water, to form a semi-liquid mass.]

(28) "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.

[(20)] (29) "Salvage" means [separating or collecting reusable solid or liquid wastes for resale or the business of separating or collecting and reclaiming] the controlled removal of reusable, recyclable or otherwise recoverable materials from solid [or liquid] wastes at a solid waste disposal site.

[(21)] (30) "Sanitary Landfill" [is the disposal of solid waste by compaction in or upon land and cover of all wastes deposited with earth or other approved cover material at least once each operating day.] means a facility for the disposal of solid waste which complies with these rules.

(31) "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.

[(22)] (32) "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) [Environmentally] Hazardous Wastes as defined in [Section 1, Chapter 699, Oregon Laws 1971 (Enrolled HB 1931).] ORS 459.410.

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

(33) "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.

[(23)] (34) "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.

(35) "Underground drinking water source" means an aquifer supplying or likely to supply drinking water for human consumption.

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

[(24)] (37) "Waste" means useless or discarded materials.

(38) "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.

340-61-020 PERMIT REQUIRED. (1) Except as provided by [sub]section[s] (2) [and (3)] of this rule, [after July 1, 1971, a disposal site] no person shall [not be] establish[ed], [and after July 1, 1972, a disposal site shall not be] operate[d], maintain[ed] or substantially alter[ed], expand[ed] or improve[d,] a disposal site, and [a change] no person shall [not be made in] change the method or type of disposal at a disposal site, until the person owning or controlling the disposal site obtains a permit therefor from the Department.

[(2) Disposal sites in existence at the time of adoption of these rules and used only by the owner or person in control of the premises, to dispose of industrial or agricultural wastes generated by the owner or person in control of the premises, need not obtain a permit until July 1, 1973, unless the Department determines that a permit is necessary for a specific site prior to July 1, 1973, in order to adequately protect environmental quality or the public health or welfare.]

[(3)] (2) Persons owning or controlling the following classes of disposal sites are specifically exempted from the above requirements to obtain a permit under these rules, but shall comply with all other provisions of these rules and other applicable laws, rules and regulations regarding solid waste disposal:

(a) Disposal sites, facilities or disposal operations [covered under] operated pursuant to a permit issued under ORS [449.083 or under Chapter 699, Oregon Laws 1971 (HB 1931).] 459.505, 459.510 or 468.740.

(b) A landfill site [which is] used [only] exclusively [by the owner or person in control of the premises to dispose] for the disposal

of soil, rock, concrete, brick, building block, tile or [other similar non-decomposable materials.] asphalt paving. (Note: Such a landfill may require a permit from the Oregon Division of State Lands.)

(c) Composting operations used only by the owner or person in control of a dwelling unit to dispose of food scraps, garden wastes, weeds, lawn cuttings, leaves, and prunings generated at that residence and operated in a manner approved by the Department.

[(4)] (3) The Department may, in accordance with a specific [conditional] permit containing a [and] compliance schedule, grant reasonable time for solid waste disposal sites or facilities [which were existing at the time of adoption of these rules] to comply with these rules.

[(5)] (4) If it is determined by the Department that a proposed or existing disposal site [or solid waste handling operation used only by the owner or person in control of the premises,] is not likely to create a public nuisance, health hazard, air or water pollution or other environmental problem, the Department may waive any or all requirements of rules 340-61-025, 340-61-030, [and rule] 340-61-035 and 340-61-036 and section 340-61-040(1) [of these rules] and issue a [properly conditioned written authorization, which may be in the form of a letter. Application for such authorization shall be in the form of a letter which fully describes the need and justification therefor, the materials to be disposed and the conditions under which the operation is to be carried out and shall include an agreement by the applicant to terminate the operation immediately upon request by the Department.] special letter authorization in accordance with rule 340-61-027.

(5) Each person who is required by section (1) of this rule to obtain

a permit shall:

- (a) Make prompt application to the Department therefor;
- (b) Fulfill each and every term and condition of any permit issued by the Department to such person;
- (c) Comply with these rules;
- (d) Comply with the Department's requirements for recording, reporting, monitoring, entry, inspection, and sampling, and make no false statements, representations, or certifications in any form, notice, report, or document required thereby.

(6) Failure to conduct solid waste disposal according to the conditions, limitations, or terms of a permit, letter authorization or these rules, or failure to obtain a permit or letter authorization, is a violation of these rules and shall be cause for the assessment of civil penalties for each violation as provided in OAR Chapter 340, Division 12 or for any other enforcement action provided by law. Each and every day that a violation occurs is considered a separate violation and may be the subject of separate penalties.

340-61-025 APPLICATIONS FOR PERMITS. (1) Applications for permits shall be [filed and permits shall be issued, denied, modified or revoked] processed in accordance with the Procedures for Issuance, Denial, Modification and Revocation of Permits as set forth in OAR Chapter 340, Division 14.

(2) Applications for a permit shall be accepted by the Department only when complete, as detailed in section 340-61-025(3).

~~[(2)]~~ (3) [In order for] Applications for permits [to] shall be [considered] complete [and accepted for processing] only if they [shall]:

- (a) [Be] Are submitted in [triplicate] duplicate on forms provided

by the Department, [and be] accompanied by [a like number of copies of] all required exhibits, and the forms are completed in full and are signed by the property owner or person in control of the premises.

(b) Include written recommendations of the local [or state health agency] government unit or units having jurisdiction[.]

[(c) Include recommendations of the local governing body and its regional solid waste advisory committee and the city or county planning commission having jurisdiction], to establish a new disposal site or to substantially alter, expand, or improve a disposal site or to make a change in the method or type of disposal. Such recommendations shall include, but not be limited to, a statement of compatibility with the acknowledged local comprehensive plan and zoning requirements or the Land Conservation and Development Commission's Statewide Planning Goals.

[(d)] (c) Include[, for all existing landfill operations, a] detailed [site development and operational] plans and specifications as required by [subsection 61-040-(1) (b)] rule 340-61-035 [of these rules.]

[(3)] (d) [Applications for a permit to establish a new disposal site or to substantially alter, expand or improve a disposal site or to make a change in the method or type of disposal shall be accompanied by] Include a feasibility study report prepared in accordance with rule 340-61-030 [of these rules], to establish a new disposal site or to substantially alter, expand or improve a disposal site or to make a change in the method or type of disposal at a disposal site, unless the requirements of said feasibility study have been met by [submittal of a regional or county-wide plan or] other prior submittals.

(e) Include such other information as the Department may deem necessary to determine whether the proposed disposal site [and solid waste

disposal facilities] and the operation thereof will comply with all applicable [requirements] rules of the Department.

(4) If in the judgment of the Department, a proposed new, modified or expanded disposal site or a proposed change in the method or type of disposal is not likely to have significant adverse effects on public health or the environment, the Department may waive the requirements of subsections 340-61-025(2)(c) and 340-61-025(2)(d), rule 340-61-036 and section 340-61-040(1).

In making this judgment, the Department may consider the size and location of the disposal site, the volume and types of waste received and any other relevant factor.

(5) If the requirements of subsections 340-61-025(2)(c) and 340-61-025(2)(d), rule 340-61-036 and section 340-61-040(1) are waived, the applicant must submit plan drawings and pertinent information including:

(a) A site location map indicating section, township, range and site boundaries.

(b) A site layout drawing that illustrates the approximate size and location of all pertinent man-made and natural features of the site (roads, ditches, streams, berms, buildings, etc.) and the sequence of developing fill areas at the site.

(c) A minimum of two perpendicular cross section drawings to show the design of the landfill cells and any pertinent landfill structures. Each cross section shall illustrate approximate existing grade, excavation grade and proposed final grade.

(d) An operational plan which describes the proposed method of operation and progressive development of the trenches and/or landfill lifts or cells. The plan shall also include a description of the types and

quantities of waste materials that will be received (estimated maximum daily and average annual quantities); types of cover material to be used and proposed frequency of application; and measures to be used for the control of leachate surface drainage, fire, litter and other potential hazards or nuisances as pertinent.

[(4)] (6) If a local public hearing regarding a proposed disposal site has not been held and if, in the judgment of the Department, there is sufficient public concern regarding the proposed disposal site, the Department may, as a condition of receiving and acting upon an application, require that such a hearing be held by the County Board of Commissioners or County Court or other local government agency responsible for solid waste management, for the purpose of informing and receiving information from the public.

[(5) Landfills, incinerators, composting plants and sludge disposal sites are subject to special regulations under rules 340-61-040, 340-61-045, 340-61-050 and 340-61-055 of these rules, however nothing in rules 340-61-040, 340-61-045, 340-61-050 and 340-61-055 shall be construed to limit the methods of solid waste handling or disposal which may be permitted by the Department to only those methods cited.]

340-61-026 DENIAL OF PERMITS. (1) Upon receipt of a completed application, the Department shall deny the permit if:

- (a) The application contains false information;
- (b) The application was wrongfully accepted by the Department;
- (c) The proposed disposal site would not comply with these rules or other applicable rules of the Department.
- (d) The proposal is not part of or not compatible with the adopted local solid waste management plan approved by the Department.

(e) There is no clearly demonstrated need for the proposed new, modified or expanded disposal site or for the proposed change in the method or type of disposal.

340-61-027 LETTER AUTHORIZATIONS. The Department may authorize the temporary operation of a disposal site by issuing a "letter of authorization" subject to the following:

(1) A letter authorization may be issued only on the basis of a complete written application which has been approved by the Department. Applications for letter authorizations shall be complete only if they contain the following items:

(a) The quantity and types of material to be disposed.

(b) A discussion of the need and justification for the proposed project.

(c) The expected amount of time which will be required to complete the project.

(d) The methods proposed to be used to insure safe and proper disposal of solid waste.

(e) The location of the proposed disposal site.

(f) A statement of approval from the property owner or person in control of the property, if other than the applicant.

(g) Written verification from the local planning department that the proposal is compatible with the acknowledged local comprehensive plan and zoning requirements or the Land Conservation and Development Commission's Statewide Planning Goals.

(h) Any other relevant information which the Department may require.

(2) Upon receipt of a complete written application the Department may approve the application if it is satisfied that:

(a) The applicant has demonstrated sufficient need and justification for the proposal.

(b) The proposed project is not likely to cause a public nuisance, health hazard, air or water pollution or other environmental problem.

(3) The Department may revoke or suspend a letter authorization on any of the following grounds:

(a) A material misrepresentation or false statement in the application;

(b) Any relevant violation of any statute, rule, order, permit, ordinance, judgment or decree;

(4) The Department may issue letter authorizations for periods not to exceed six (6) months. Any requests to conduct additional disposal shall require a new application and a new authorization.

340-61-030 FEASIBILITY STUDY REPORT. A feasibility study report shall include, but not be limited to, the following:

(1) [A description of and background information on the service area including climate, topography, political entities, transportation system, major contributors to the area economy, population density and trends and projections of factors affecting solid waste management in the area.]

An Existing Conditions Map of the area showing land use and zoning within 1/4 mile of the disposal site. Also, any airport runway within 10,000 feet of the site or within 5,000 feet if used only by propeller-driven aircraft. (Note: Runways may be shown on a scaled insert). The map shall show all structures, natural features of the land and the precise geographical location and boundaries of the disposal site. An on-site bench mark shall be indicated and a north arrow drawn. Unless

otherwise approved by the Department, the scale of the map shall be no greater than one inch equals 200 feet and, for landfills, topography of the site and area within 1/4 mile shall be shown with contour intervals not to exceed five feet.

[(2) A statement of the existing disposal practice in the service area, including types and quantities of wastes, methods of processing and disposal presently used.]

[(3) The status of a regional or county-wide solid waste management plan and evidence that the proposed disposal facility is a part of or is compatible with such a plan.]

[(4)] (2) A description of the proposed method or methods to be used in processing and disposing of solid wastes, including anticipated types and quantities of solid wastes, justification of alternative disposal method selected, general design criteria, [ultimate] planned future use of [land] the disposal site after closure, type of equipment to be used, and projected life of the site[, and proposed administration of the program].

[(5) Maps, exhibits and reports to show graphically the location and nature of the proposed project. For a land disposal facility, the geologic characteristics of each site reflecting depths and types of soil; depth to rock; depth to local and regional groundwater tables; location and logs of soil borings; down-gradient uses of groundwater; direction and flow of groundwater; historic and seasonal surface water flows and elevations; proposed surface water diversion structures, berms, ditches, access roads, residences, buildings, streams, springs, ponds, wells and existing contours and elevations. For all sites and facilities the land use and zoning in the vicinity of the proposed site; population projections; prevailing and

seasonal wind characteristics; supporting data and other pertinent information shall be presented.]

(3) For a landfill, a detailed soils, geologic, and groundwater report of the site prepared and stamped by a professional Engineer, Geologist or Engineering Geologist with current Oregon registration. The report shall include consideration of surface features, geologic formations, soil boring data, water table profile, direction of groundwater flow, background quality of water resources in the anticipated zone of influence of the landfill, need and availability of cover material, climate, average rates of precipitation, evapotranspiration, runoff, and infiltration (preliminary water balance calculations).

Soil borings shall be to a minimum depth of twenty feet below the deepest proposed excavation and lowest elevation of the site or to the permanent groundwater table if encountered within twenty feet. A minimum of one boring per representative landform at the site and an overall minimum of one boring per each ten acres shall be provided. Soil boring data shall include the location, depth, surface elevation and water level measurements of all borings, the textural classification (Unified Soil Classification System), permeability and cation exchange capacity of the subsurface materials and a preliminary soil balance.

For all water wells located within the anticipated zone of influence of the disposal site, the depth, static level and current use shall be identified.

Background groundwater quality shall be determined by laboratory analysis and shall include at least each of the constituents specified by the Department.

[(6)] (4) A proposal for protection and conservation of the air,

water and land environment surrounding the disposal site, including control and/or treatment of leachate, methane gas, litter and vectors, [prevention of traffic congestion] and control of other discharges, emissions [or] and activities which may result in a public health hazard, a public nuisance or environmental degradation.

[(7) A proposed fiscal program for plan implementation, including initial capital required, capital budget and bond or loan amortization if applicable.]

340-61-031 PRELIMINARY APPROVAL. (1) The Department may issue written preliminary approval to any applicant for a Solid Waste Disposal Permit, prior to submission of detailed engineering plans and specifications, based on the material submitted in accordance with the requirements of rule 340-61-030.

(2) The purpose of the preliminary review and approval process is to inform the applicant of the Department's concerns, if any, regarding the proposal and to provide guidance in the development of the detailed plans and specifications required to complete the permit application. Receipt of preliminary approval does not grant the applicant any right to begin construction or operation of a disposal site.

(3) Requests for preliminary approval shall be made to the Department in writing. Within 45 days of receipt of such request, the Department shall either grant or deny preliminary approval or request additional information.

(4) Granting of preliminary approval shall not prevent the Department from denying or conditionally approving a completed permit application.

(5) If the Department denies preliminary approval, it shall clearly state the reasons for denial. Failure to receive preliminary approval

shall not prevent an applicant from completing a permit application. Any application completed after denial of preliminary approval shall specifically address those concerns listed in the Department's letter of denial.

340-61-035 DETAILED PLANS AND SPECIFICATIONS REQUIRED. Except as provided in Section 340-61-025(4):

(1) [Before a new disposal site or fixed transfer station used by the public is established, constructed, maintained or operated and before an existing disposal site or fixed transfer station is substantially altered, expanded or modified, an applicant must submit to the Department final detailed plans and specifications for construction and operation of the proposed disposal site or transfer station and all related facilities and obtain written approval of such final plans and specifications from the Department.] Any person applying for a Solid Waste Disposal Permit shall submit plans and specifications to the Department sufficiently detailed and complete so that the Department may evaluate all relevant criteria before issuing a permit.

The Department may refuse to accept plans and specifications that are incomplete and may request such additional information as it deems necessary to determine that the proposed disposal site and site operation will comply with all pertinent rules of the Department.

(2) Engineering plans and specifications submitted to the Department shall be prepared and stamped by a professional engineer with current Oregon registration.

[(4) Plans and specifications submitted to the Department shall be sufficiently detailed and complete to ensure that the proposed disposal site and related facilities will be constructed and

operated as intended and in compliance with all pertinent state and local air, water and solid waste statutes and regulations.]

(3) If in the course of facility construction any person desires to deviate significantly from the approved plans, the permittee shall submit a detailed description of the proposed change to the Department for review and approval prior to implementation.

340-61-036 CONSTRUCTION CERTIFICATION. Except as provided in Section 340-61-025(4):

(1) The Department may require, upon completion of major or critical construction at a disposal site, that the permittee submit to the Department a final project report signed by the project engineer or manager as appropriate. The report shall certify that construction has been completed in accordance with the approved plans including any approved amendments thereto.

(2) If any major or critical construction has been scheduled in the plans for phase development subsequent to the initial operation, the Department may require that the permittee submit additional certification for each phase when construction of that phase is completed.

340-61-038 AUTHORIZED AND PROHIBITED DISPOSAL METHODS. (1) Sanitary Landfill. Disposal of solid waste is authorized only at a sanitary landfill.

(2) Open Dump. The establishment, operation, or maintenance of an open dump is prohibited.

340-61-040 SPECIAL RULES PERTAINING TO LANDFILLS. (1) Plan Design Requirements. Unless an exemption has been granted under section 340-61-025(4), in addition to the requirements of rule 340-61-025, detailed plans and specifications for landfills shall include but not be limited to:

(a) Topographic maps which show natural features of the site; the location and design of all pertinent existing and proposed structures [physical features of the site], such as berms, dikes, surface drainage control devices, access and on-site roads, water and waste water facilities, gas control devices, [trenches, landfill lifts and cells,] monitoring wells, fences, utilities, [truck washing] maintenance facilities, shelter and buildings; legal boundaries and property lines, [land use,] and existing contours and projected finish grades [at not to exceed five (5) foot contour intervals]. Unless otherwise approved by the Department[.], the scale of the plan drawings shall be no greater than one inch equals 200 feet, with contour intervals not to exceed five feet. Horizontal and vertical controls shall be established and tied to an established bench mark located on or near the site. Where the Department deems it essential to ensure compliance with these rules, the bench mark shall be referenced to the Oregon State Plane Co-ordinate System, Lambert Projection.

(b) A minimum of two perpendicular cross section drawings through the landfill. Each cross section shall illustrate existing grade, excavation grade, proposed final grade, any additions for groundwater protection, water table profile and soil profile. Additional cross sections shall be provided as necessary to adequately depict underlying soils, geology and landfill contours, and to display the design of environmental protection devices or structures.

(c) A description of the design assumptions and methods used to forecast flows and to determine the sizing of pumps, pipes, ditches, culverts and other hydraulic equipment used for the collection, treatment and disposal of leachate and for the control of surface drainage.

[(b)] (d) A detailed operational plan and timetable [including which describes the proposed method of operation and progressive development of trenches and/or landfill lifts or cells [sequence of site development, utilization and operation and a proposal for monitoring and reporting any environmental affects resulting therefrom]. Said plan shall include a description of the types and quantities of waste materials that will be received (estimated maximum daily and average annual quantities); methods of waste unloading, placement, compaction and covering; areas and/or procedures to be used for disposal of waste materials during inclement weather; types and weights of equipment to be used for site operation; detailed description of any salvaging or resource recovery operations to take place at the facility; such measures for the collection, containment, treatment or disposal of leachate as may be required; provisions for managing surface drainage; and measures to be used for the control of fire, dust, decomposition gases, birds, disease vectors, scavenging, access, flooding, erosion, and blowing debris, as pertinent.

[(2) Authorized Landfill Methods:]

[(a) Sanitary Landfill. Disposal of solid waste by landfilling shall be by the sanitary landfill method unless a modified landfill is specifically authorized by written permit.]

[(b) Modified Landfill. Modified landfills may be permitted if it is determined by the Department that special circumstances such as climate, geographic area, site location, nature or quantity of the material to be landfilled, or population density justifies less than daily compaction and cover.]

[(c) Open Burning or Open Dumps. Open burning or open dumps of putrescible solid wastes shall not be permitted.]

[Open burning of non-putrescible combustible wastes at a disposal site at distances greater than five hundred (500) feet from the active landfill area may be permitted in accordance with plans approved and permits issued by the Department provided that such burning is permitted by rules and regulations of the air pollution control authority having jurisdiction.]

(3) Open Burning. No person shall conduct the open burning of solid waste at a landfill, except in accordance with plans approved and permits issued by the Department prior to such burning. The Department may authorize the open burning of tree stumps and limbs, brush, timbers, lumber and other wood waste, except that open burning of industrial wood waste is prohibited.

[(3) Landfill Design and Construction:]

[(a) Location. Modified landfills should be located a minimum of 1/4 mile from the nearest existing residence or commercial establishment other than that used by the landfill operator.]

[(b)] (4) Leachate. Any person designing, constructing, or operating a landfill shall ensure that leachate production [shall be] is minimized. [and] Where required by the Department, leachate shall be collected and treated or otherwise controlled in a manner approved by the Department.

[(c)] (5) Groundwater[.]: [Areas having high groundwater tables may be restricted to landfill operations which will maintain a safe vertical distance between deposited solid waste and the maximum water table elevation.]

[Solid wastes other than tires, rock, dirt, brick and concrete rubble and similar non-decomposable materials shall not be deposited directly into the groundwater table or in flooded trenches or cells.]

(a) Each landfill permittee shall ensure that:

(A) The introduction of any substance from the landfill into an underground drinking water source does not result in a violation of any applicable federal or state drinking water rules or regulations beyond the solid waste boundary of the landfill or an alternative boundary specified by the Department.

(B) The introduction of any substance from the landfill into an aquifer does not impair the aquifer's recognized beneficial uses, beyond the solid waste boundary of the landfill or an alternative boundary specified by the Department, consistent with the Commission's adopted Groundwater Quality Protection Policy and any applicable federal or state rules or regulations.

(b) Where monitoring is required, monitoring wells shall be placed between the solid waste boundary and the property line if adequate room exists.

(c) The Department may specify an alternative boundary based on a consideration of all of the following factors:

(A) The hydrogeological characteristics of the facility and surrounding land;

(B) The volume and physical and chemical characteristics of the leachate;

(C) The quantity and directions of flow of groundwater;

(D) The proximity and withdrawal rates of groundwater users;

(E) The availability of alternative drinking water supplies.

(F) The existing quality of the groundwater including other sources of contamination and their cumulative impacts on the groundwater; and

(G) Public health, safety, and welfare effects.

(6) Surface Water:

(a) No person shall cause a discharge of pollutants from a landfill into public waters, including wetlands, in violation of any applicable state or federal water quality rules or regulations.

(b) Each landfill permittee shall ensure that surface runoff and leachate seeps are controlled so as to minimize discharges of pollutants into public waters.

(7) [(d)] Monitoring [Wells.]:

(a) Where the Department finds that a landfill's location and geophysical conditions indicate that there is a reasonable probability of potential adverse effects on public health or the environment, the Department may require a permittee to provide monitoring wells [may be required where deemed necessary] to determine the effects of [a] the landfill on [usable ground water resources in accordance with plans approved in writing by the Department] groundwater and/or on the concentration of methane gas in the soil.

[Other sites may be required to provide monitoring wells if they are determined by the Department to be necessary.]

(b) If the Department determines that monitoring wells are required at a landfill, the permittee shall provide and maintain the wells at the locations specified by the Department and, at the Department's request, shall submit a copy of the well logs to the Department within thirty (30) days of completion of construction.

(c) Where the Department determines that self-monitoring is practicable, the Department may require that the permittee collect and analyze samples of surface water, groundwater and/or gas, at intervals specified and in a manner approved by the Department, and submit the

results within a time frame specified by the Department.

(d) The Department may require permittees who do self-monitoring to periodically split samples with the Department for the purpose of quality control.

(8) Endangered Species. No person shall establish, operate, expand or modify a landfill in a manner that will cause or contribute to the actual or attempted:

(a) Harassing, harming, pursuing, hunting, wounding, killing, trapping, capturing or collecting of any endangered or threatened species of plants, fish, or wildlife.

(b) Direct or indirect alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

(9) Gas Control. No person shall establish, operate, expand or modify a landfill such that:

(a) The concentration of methane (CH₄) gas at the landfill exceeds twenty-five (25) percent of its lower explosive limit in facility structures (excluding gas control or gas recovery system components) or its lower explosive limit at the property boundary.

(b) Malodorous decomposition gases become a public nuisance.

(10) [(e)] Surface Drainage Control. Each permittee shall ensure that: [A disposal site shall be so located, sloped or protected]

(a) The landfill is designed, constructed and maintained so that drainage will be diverted around or away from [the] active and completed operational areas [of the site].

(b) The surface contours of the [site shall be] landfill are maintained such that ponding of surface water [run-off will not flow

into or through the fill.] is minimized.

[(f) Dikes. Landfill sites which may be subject to flooding shall be protected by dikes which are constructed to be impervious to the passage of water and designed to prevent erosion or cutting out of the filled portions of the landfill site.]

(11) Floodplains. No permittee of a landfill located in a floodplain shall allow the facility to restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.

(12) [(g)] Cover Material. Each permittee shall provide adequate quantities of cover material of a type approved by the Department [shall be available to provide] for the [periodic] covering of deposited solid waste at a landfill in accordance with the approved operational plan, [and] permit conditions and these rules.

[Final cover material must be available which will permit minimal percolation of surface water and minimum cracking of the completed fill.]

(13) Cover Frequency. Each permittee shall place a compacted layer of at least six inches of approved cover material over the compacted wastes in a landfill at intervals specified in the permit. In setting a requirement for cover frequency, the Department may consider such factors as the volume and types of waste received, hydrogeologic setting of the facility, climate, proximity of residences or other occupied buildings, site screening, availability of equipment and cover material, any past operational problems and any other relevant factor.

[(h)] (14) Access Roads. Each permittee shall ensure that roads from [a public highway to a] the [disposal site] landfill property line

to the active operational area and roads within [a disposal site] the operational area are [shall be designed] constructed and maintained so as to [prevent] minimize [traffic congestion,] traffic hazards, [and] dust and [noise pollution] mud and to provide reasonable all-weather access for vehicles using the site.

[(i) Fences. Access to landfills which are not attended on a twenty-four hour basis shall be controllable by means of gates which may be locked and the site shall be completely enclosed by a perimeter fence unless access is adequately controlled by the natural terrain features of the site.]

(15) Access Control. Each permittee shall insure that the landfill has a perimeter barrier or topographic constraints adequate to restrict unauthorized entry.

[(j)] (16) Site Screening. [Site screening shall be provided as required to effectively screen, insofar as is practicable, the active landfill area from residences and public view.] To the extent practicable, each permittee shall screen the active landfill area from public view by trees, shrubbery, fence, stockpiled cover material, earthen berm, or other appropriate means.

[(k) Public Dumping. Where practicable, special facilities such as a transfer station, vehicles or drop-box shall be provided to keep the public out of the active landfill area.]

[(l)] (17) Fire Protection[.]: [Fire protection shall be provided in accordance with design and operational plans approved by the Department and in accordance with pertinent state and local fire regulations.]

[Where practicable, water under pressure shall be available at the site.]

[A minimum water supply of not less than 300 gallons should be provided.]

(a) Each landfill permittee shall make arrangements with the local fire control agency to immediately acquire their services when needed and shall provide adequate on-site fire protection as determined by the local fire control agency.

(b) In case of accidental fires at the site, the operator shall be responsible for initiating and continuing appropriate fire-fighting methods until all smoldering, smoking and burning ceases.

(c) No operator shall permit the dumping of combustible materials within the immediate vicinity of any smoldering, smoking or burning conditions at a landfill, or allow dumping activities to interfere with fire-fighting efforts.

~~[(m)]~~ (18) Special Handling. Large dead animals, sewage sludges, septic tank pumpings, hospital wastes and other materials which may be hazardous or difficult to manage, shall not be deposited at a disposal site unless special provisions for such disposal are included in the operational plan or otherwise approved by the Department [or local health department having jurisdiction].

~~[(n)]~~ (19) Signs. [Clearly stating dumping area rules shall be posted and adequate to obtain compliance with the approved operational plans.]

Each permittee of a landfill open to the public shall post a clearly visible and legible sign or signs [shall be erected] at the entrance to the disposal site [which shall contain at least the following:

- (a) Name of facility and owner.
- (b) Emergency phone number of attendant.

(c) Restricted materials (if applicable).

(d) Operational hours during which wastes will be received for disposal.

(e) Penalty for unlawful dumping.]

specifying the name of the facility, the hours and days the site is open to the public, an emergency phone number and listing the general types of materials which either will be accepted or will not be accepted.

[(o)] (20) Truck Washing Facilities. Each permittee shall ensure that any truck washing areas at a landfill [shall be] are hard surfaced and that any on-site disposal of [all] wash waters [shall be] is accomplished in a manner [conveyed to a catch basin drainage and disposal system] approved by the Department [or state or local health agency having jurisdiction].

[(p)] (21) Sewage Disposal. Each landfill permittee shall ensure that any on-site [Sanitary waste] disposal of sewage is [shall be] accomplished in a manner approved by the Department [or state or local health agency having jurisdiction].

[(4) Landfill Operation:

(a) Compaction and cover. Solid Waste deposited at a landfill site shall be spread on a slope no steeper than 3 horizontal to 1 vertical and compacted in layers not to exceed 2 feet in depth up to maximum cell heights in accordance with the approved operational plan and covered with not less than 6 inches of compacted cover material at intervals specified in the permit. Alternative procedures to achieve equivalent results may be approved by the Department.]

[(b) Final Cover and Grading. A layer of not less than two (2) feet of compacted earth, in addition to intermediate cover material, shall be

placed over the completed fill following the final placement of solid waste. The final cover shall be graded, seeded with appropriate ground cover and maintained to prevent cracking, erosion and the ponding of water.]

[(c) Exposed Solid Waste. Unloading of solid waste on the site shall be confined to the smallest practical area and the area of exposed waste material on the active landfill face shall be kept to a minimum.]

[(d) Equipment. Sufficient equipment in good operating condition and adequate to construct and operate the landfill site including placement, compaction and covering of solid wastes under all anticipated weather and soil conditions shall be available at all times, with provisions for auxiliary or standby equipment as required in accordance with the approved operational plan.]

[(e) Accidental Burning. All reasonable precautions, such as segregation of flammable wastes and early removal of "hot spots", shall be taken to prevent accidental ignition or spontaneous combustion of solid wastes at a landfill site. Water, stockpiled earth or other means shall be available to extinguish such fires as may occur.]

[Hot or burning materials, or any materials likely to cause fire shall be deposited temporarily at a safe distance from the fill area and shall not be included in the landfill operation until the fire hazard is eliminated.]

[(f)] (22) Salvage[:

(a) A permittee may conduct or allow the recovery of materials such as metal, paper and glass from the landfill only when such recovery is conducted in a planned and controlled manner approved by the Department.

[Salvaging or scavenging shall be controlled so as to not interfere

with optimum disposal site operation and to not create unsightly conditions or vector harborage.]

[All salvaged materials shall be removed from the disposal site at the end of each operating day, unless some other recycling or storage program is authorized in the operational plan approved by the Department.]

(b) No person may salvage food products, hazardous materials[, containers used for hazardous materials] or furniture and bedding with concealed filling [shall not be salvaged] from a [disposal site]. landfill.

(23) Litter:

(a) Each permittee shall ensure that effective measures such as compaction, the periodic application of cover material or the use of portable fencing or other devices are taken to minimize the blowing of litter from the active working area of the landfill.

(b) Each landfill operator shall collect windblown materials from the disposal site and adjacent property and properly dispose of same at sufficient frequency to prevent aesthetically objectionable accumulations.

(24) Vector and Bird Control:

(a) Each permittee shall ensure that effective means such as the periodic application of earth cover material or other techniques as appropriate are taken at the landfill to control or prevent the propagation, harborage, or attraction of flies, rodents, or other vectors and to minimize bird attraction.

(b) No permittee of a landfill disposing of putrescible wastes that may attract birds and which is located within 10,000 feet (3,048 meters) of any airport runway used by turbojet aircraft or within 5,000 feet (1,524

meters) of any airport used by only piston-type aircraft shall allow the operation of the landfill to increase the likelihood of bird/aircraft collisions.

[(g) Nuisance Conditions. Blowing debris shall be controlled such that the entire disposal site is maintained free of litter.]

[Dust, malodors and noise shall be controlled to prevent air pollution or excessive noise as defined by ORS Chapter 449 and Chapter 452, Oregon Laws 1971, and rules and regulations adopted pursuant thereto.]

[(h) Health Hazards. Rodent and insect control measures such as baiting and insecticide spraying shall be provided as necessary to prevent vector production and sustenance.]

[Any other conditions which may result in transmission of diseases to man and animals shall be controlled.]

(25) Weighing. The Department may require that landfill permittees provide scales and weigh incoming loads of solid waste, to facilitate solid waste management planning and decision making.

[(i)] (26) Records. The Department may require [such] records and reports [as] it considers [are] reasonably necessary to ensure compliance with conditions of a permit [of] or these rules.

[(j)] (27) Closure of Landfills[.]:

[(a) Before a landfill may be closed or abandoned to further use, all solid wastes at the disposal site shall be compacted and covered and the site finally graded and restored in a manner approved in writing by the Department.]

[A maintenance program for continued control or erosion, repair, and stabilization of the fill shall be provided until the completed fill has stabilized to the point where maintenance is no longer required.]

(a) Unless otherwise approved or required in writing by the Department, no person shall permanently close or abandon a landfill, except in the following manner:

(A) All filled areas shall be covered with at least two (2) feet of compacted earth graded to a minimum two (2) percent and maximum thirty (30) percent slope.

(B) Final cover material shall be applied to each portion of a landfill within sixty (60) days after said portion reaches approved maximum fill elevation. In the event of inclement weather, final cover may be applied as soon as practicable.

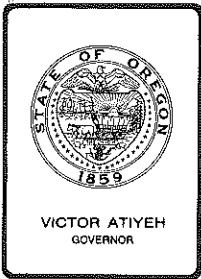
(b) Unless otherwise approved by the Department as provided in section 340-61-025(4), permanent closure of landfills shall be in accordance with detailed plans approved in writing by the Department.

(3) The finished surface of the filled areas shall consist of soils of a type or types consistent with the planned future use and approved by the Department. Where appropriate, the finished surface shall be promptly seeded with native grasses or other suitable vegetation.

(28) Completed Landfills:

(a) Upon completion or closure of a landfill, a detailed description of the site including a plat should be filed with the appropriate county land recording authority by the permittee. The description should include the general types and location of wastes deposited, depth of fill and other information of probable interest to future land owners.

(b) Completed landfills shall be inspected and maintained by the permittee as necessary to prevent significant surface cracking, erosion, or ponding of water and to comply with these rules.



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. P, August 28, 1981, EQC Meeting

REQUEST FROM MULTNOMAH COUNTY FOR A SIX (6) MONTH DELAY
IN IMPLEMENTING THE PROVISIONS OF OAR 340-71-335(2) (a),
CESSPOOL PROHIBITIONS

Background and Problem Statement

At its March 13, 1981 meeting the Commission adopted a comprehensive set of administrative rules for on-site sewage disposal, OAR 340-71-100 to 340-71-600. Within this set of rules is a specific rule that deals with cesspools, OAR 340-71-335. Section 2 of this rule prohibits the installation of cesspools to serve new structures after October 1, 1981. During an interim period from October 1, 1981 to January 1, 1985 seepage pits may be installed in lieu of cesspools. (A seepage pit is a cesspool with a septic tank ahead of it). The cost of a seepage pit system is estimated to be in the range of \$500 greater than the cost of a cesspool.

Multnomah County has requested that the October 1, 1981 date of OAR 340-71-335(2) (a) be delayed for a period of six months to allow the county to develop a complete implementation plan and schedule for constructing sewers in east Multnomah County. (Attachment A).

Alternatives and Evaluation

During this year (1981) a number of things have occurred in Multnomah County which make the prospects brighter for sewer construction. The county is concerned that prohibition of cesspools after October 1, 1981 may have a detrimental effect on their efforts to install sewers. It is the County's position that requiring seepage pits rather than allowing cesspools for new construction during the interim in which sewers are to be constructed will add to the short and long range sewage disposal costs without providing a measureable level of protection to the groundwater.

In their letter of request, the County lists six (6) significant events that have occurred this year which they contend signifies a positive

climate for sewer construction. Those events are, as quoted from Attachment A:

- "1. Twelve elections have been conducted in the area in 1981. One area having about 600 homes has approved sewer construction. (This is the first successful election of any consequence in this area.) We hope to start construction in about six months.
2. A group of citizens in one of the above election areas which rejected sewers in March 1981 mounted a successful petition drive to sewer one neighborhood having 85 homes. This project is in design with construction expected to start in the Fall of 1981.
3. Preliminary engineering work has started for sewerage a commercial-industrial area near the Parkrose business district. We anticipate that this project should be underway in the fall of 1981 or spring of 1982.
4. The County has now engaged the firm of Kramer, Chin and Mayo to design the first expansion of the Inverness Wastewater Treatment Facility. This will increase capacity to three million gallons per day from the present 1.2 million gallon capacity. In addition, the treatment process will be modified to improve the quality of the effluent which is discharged to the Columbia River. We expect construction to be completed by July 1, 1983, or earlier. (Plans and specifications are due January 1982.) This expansion will be completed without federal funds. The design will provide for eventual expansion to final capacity of approximately 16 million gallons per day.
5. The County has contracted with Cornell, Howland, Hayes & Merryfield, financial consultants, to evaluate the needs of and prepare an updated financing plan for the Inverness Service area. This study is to be complete in 3 months. This will permit establishment of realistic implementation schedules for sewer construction in the area.
6. The 1981 Legislature has passed SB-853 which will enable the County to construct sanitary sewers with or without the consent of the property owners if a threat to drinking water is determined to exist."

It is the Department's position that the installation of seepage pits rather than cesspools for new construction will reduce the amount of pollutants entering the groundwater during this interim period of sewer construction. However, new construction would be a very small percentage of the total pollutant load entering the groundwater from existing development served by cesspools. The long term objective is to eliminate the pollutant load from existing cesspools from entering groundwater. Any step that enhances the long term objective can be crucial. During a time of fiscal restraint and a shortage of construction funds, the Department is, therefore, willing to accept a small increase in pollution load to be discharged to the groundwater if the construction of sewers which will

eventually eliminate the entire problem will be accelerated.

The delay in implementing the provisions of OAR 340-71-335(2)(a) requested by Multnomah County can be accomplished by the Commission adopting a temporary rule. It is expected that the plan to be developed by Multnomah County during the next six months will provide for continued use of cesspools as interim systems in areas where sewers will be constructed in the next 5 years.


Summation

1. The Commission has adopted a rule, 340-71-335, which prohibits cesspools to serve new construction after October 1, 1981.
2. Multnomah County has requested a six month delay in implementing the provisions of OAR 340-71-335(2)(a) while the County develops a plan to sewer most of the areas of East Multnomah County now served by cesspools.
3. The delay sought by the County may be accomplished by adoption of a temporary rule.
4. Findings

The Environmental Quality Commission finds that failure to act promptly will result in serious prejudice to the public interest or the interest of the parties concerned, in that after October 1, 1981 the installation of more costly seepage pit sewage disposal systems will be required during a short term interim period (six months) while Multnomah County develops a more acceptable long range solution to the problem of cesspool and seepage pit sewage disposal.

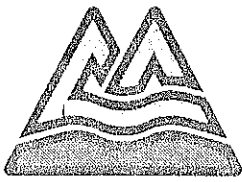
Director's Recommendation

Based upon the findings in the summation, it is recommended that the Commission adopt the proposed temporary rule, Attachment C, which delays implementation of the provisions of OAR 340-71-335(2)(a) until March 1, 1982; the rule to be effective upon filing with the Secretary of State.


William H. Young

- Attachments A - Letter of Request from Multnomah County
B - Statement of Need for Rulemaking
C - Proposed Temporary Rule

Jack Osborne;g
229-6218
July 28, 1981
XG435 (2)

**MULTNOMAH COUNTY OREGON**

ENGINEERING SERVICES
2115 S.E. MORRISON STREET
PORTLAND, OREGON 97214
(503) 248-3591

DONALD F. CLARK
COUNTY EXECUTIVE

July 24, 1981

William Young, Director
Department of Environmental Quality
PO Box 1760
Portland, Oregon 97207

Dept. of Environmental Quality

R E C E I V E D
JUL 29 1981

Attn: Robert Gilbert, Northwest Region Engineer

NORTHWEST REGION

Dear Mr. Gilbert:

Multnomah County and the State of Oregon Environmental Quality Commission and Department of Environmental Quality have for several years been quite concerned about the deteriorating quality of the ground water in central Multnomah County caused by the continuing sub-surface disposal of sanitary wastes.

Multnomah County has, for over 20 years, been attempting to correct the problem starting with evaluation of the condition, including having several studies made, forming a County Service District, constructing a sewage treatment facility and working with Federal, State and Local governmental agencies as well as private companies and individuals to build trunk, interceptor and smaller lateral sewer lines.

Throughout this time, public informational meetings too numerous to count have been conducted to educate the people living in the area of the need to protect the valuable ground water resource from eventual long-term damage from discharge of sanitary wastes to the ground.

Our limited grant funds were channeled to put trunk sewers into the areas having most of the remaining undeveloped land in order that the majority of growth in the area might utilize sanitary sewers for disposal. But the fact remains that, by far, the majority of developed property has no public sewerage system. In addition there are many large lots in this urbanized area which, having virtually all other urban services available, could and should be utilized to take care of the region's growth if adequate sewage disposal were available.

Despite the County's educational efforts, virtually no sewers have been constructed into the already developed area.

It appears now that through the urging of your Department and the efforts of the County and some of the residents who have been willing to personally campaign for sewers, things are starting to make the picture change.

1. Twelve elections have been conducted in the area in 1981. One area having about 600 homes has approved sewer construction. (This is the first successful election of any consequence in this area.) We hope to start construction in about six months.
2. A group of citizens in one of the above election areas which rejected sewers in March 1981 mounted a successful petition drive to sewer one neighborhood having 85 homes. This project is in design with construction expected to start in the Fall of 1981.
3. Preliminary engineering work has started for sewerage a commercial-industrial area near the Parkrose business district. We anticipate that this project should be underway in the Fall of 1981 or Spring of 1982.
4. The County has now engaged the firm of Kramer, Chin and Mayo to design the first expansion of the Inverness Wastewater Treatment Facility. This will increase capacity to three million gallons per day from the present 1.2 million gallon capacity. In addition, the treatment process will be modified to improve the quality of the effluent which is discharged to the Columbia River. We expect construction to be completed by July 1, 1983, or earlier. (Plans and specifications are due January 1982.) This expansion will be completed without federal funds. The design will provide for eventual expansion to final capacity of approximately 16 million gallons per day.
5. The County has contracted with Cornell, Howland, Hayes & Merrifield, financial consultants, to evaluate the needs of and prepare an updated financing plan for the Inverness service area. This study is to be complete in three months. This will permit establishment of realistic implementation schedules for sewer construction in the area.
6. The 1981 Legislature has passed SB 853 which will enable the County to construct sanitary sewers with or without the consent of property owners if a threat to drinking water is determined to exist.

We are concerned that your rule which prohibits construction of cesspools after October 1, 1981, may have a detrimental effect on our efforts to get sewers installed. This rule will require new development in areas not yet sewered to install more costly seepage pit systems as "interim or temporary" systems. The problem of financing sewer construction is great enough without adding to the costs by requiring a more expensive interim system.

We recognize that we have several things to complete before you can be fully confident in our plans. These include completion of the financing plan, construction schedules, and fall-back plan for using SB 853 if voluntary progress lags.


We, therefore, request a six-month delay in the October 1, 1981, date prohibiting use of cesspools to allow us to complete the work now in progress and return with the more detailed implementation plan and schedule. During this period, we intend to pursue enactment of a sewerage facility "Systems Development Charge" to "front end" some of the sewer system costs. We plan to credit the payments made against future sewer construction assessments for the properties assessed. An ordinance to implement this charge is being drafted.

We would expect the implementation program developed in the next six months to allow continued uses of cesspools as interim systems in areas where sewers will be constructed in the next five years and continue to collect the development charge to assist in financing construction.

This proposal, we believe, will be a positive step forward when viewed over a five to ten-year period.

Your assistance in helping us get underway with the construction of sewers in East Multnomah County will be appreciated.

Very truly yours,


OLIVER J. DOMREIS
County Engineer

OJD:RTH:ck

ATTACHMENT B

Agenda Item P , August 28, 1981, EQC Meeting

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF THE	)	STATUTORY AUTHORITY
ADOPTION OF A TEMPORARY	)	STATEMENT OF NEED
RULE DELAYING IMPLEMENTATION	)	PRINCIPAL DOCUMENTS RELIED UPON
OF OAR 340-71-335 (2) (a)	)	AND STATEMENT OF FISCAL IMPACT

(1) Citation of Statutory Authority:

ORS 454.625 which requires the Environmental Quality Commission to adopt such rules as it considers necessary for the purpose of carrying out ORS 454.605 to 454.745.

(2) Need for the Rule

Unless this rule is adopted, persons wishing to construct new homes in Multnomah County, which utilize on-site sewage disposal, will be required to install more costly seepage pit disposal systems during an interim period of six months while a long range solution to cesspool sewage disposal is developed. The impact of delaying this requirement pending development of a permanent plan for sewerage the area will be minimal.

(3) Documents Relied upon in Proposing the Rule:

Letter from Multnomah County Dated July 24, 1981.

The above letter is available for public inspection at the Office of the Department of Environmental Quality, 522 SW Fifth, Portland and Multnomah County Department of Environmental Services, 2115 SE Morrison Street, Portland, during regular business hours, 8 am to 5 pm Monday through Friday.

(4) Fiscal and Economic Impact

Additional cost of providing a septic tank ahead of a cesspool to convert it to a seepage pit is estimated at \$500. This cost will be borne by the buyer of the new home. With the adoption of this rule that cost will be averted for at least six months.

Jack Osborne:g
229-6218
July 28, 1981

XG435.B (1)

ATTACHMENT C

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

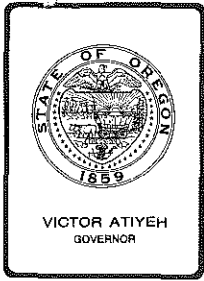
Proposed Temporary Rule:

The following temporary rule is made a part of Oregon Administrative Rules,
Chapter 340, Division 71:

"Implementation of the Provisions of OAR 340-71-335(2) (a) is
hereby delayed to March 1, 1982."

TJO:g

XG435.C (2)
August 28, 1981



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. Q, August 28, 1981, EQC Meeting

Water Quality Rule Adoption--Housekeeping Amendments
to OAR Chapter 340, Divisions 44, 45, and 52, and
Repeal of Divisions 42 and 43.

Background and Problem Statement

The Department has reviewed all water quality related rules and found some out of date and in need of repeal. Others have been found in need of minor housekeeping changes. Proposed changes were drafted and presented to the Commission at their June meeting. The Commission authorized the Department to hold a public hearing on the proposed changes.

The public hearing was held on July 9, 1981, at the Department's conference room in the Yeon Building in Portland. There was nothing controversial in the proposed changes and no one appeared at the hearing. There were several persons who requested copies of the proposed changes after receiving the public notice. We received no negative comments regarding the proposed changes. We received two letters suggesting additional changes which had not been considered.

Discussion and Evaluation

The following is a summary of the proposed rule changes. The exact changes are shown in Attachment 2.

Division 42--Plant Operation

This entire division is to be repealed. It is no longer necessary and is adequately covered by other rules and individual permits.

Division 43--Disposal of Industrial Wastes

This entire division is to be repealed. It is no longer necessary and is adequately covered by other rules and individual permits.

Division 44--Construction and Use of Waste Disposal Wells

Section 340-44-015(7) is to be modified to allow the continued use of a waste disposal well for a replacement structure when the original structure was destroyed by an act of God and no alternative means is yet available.

In addition to the above change, because of comments received during the public participation period, it is proposed that 340-44-015(3) be modified to allow the Director to authorize waste disposal well use for other nontoxic and nonpolluting wastes on a case-by-case basis. The current rules restrict industrial use to noncontact cooling water only. There are other innocuous waste streams that could be appropriately discharged to a waste disposal well rather than discharging to a community sewer.

Division 45--Regulations Pertaining to NPDES and WPCF Permits

Section 340-45-010(5) is to be modified by changing the definition of "Disposal System" to include on-site sewage disposal systems over 5,000 gallons per day.

Rule 340-45-010 is also to be modified by adding a definition for "General Permit."

Section 340-45-035(4) is to be modified to correspond more closely with revised federal regulations with regard to preparation of fact sheets.

Section 340-45-035(5) is to be modified to provide flexibility in the 14 day permit applicant review period. Upon request of the applicant, the review period could be extended, reduced, or waived altogether.

Rule 340-45-060 is to be changed to allow the Director to suspend or revoke a permit without notifying the permittee by certified mail when the suspension or revocation comes as a result of a request from the permittee.

Division 45--Table 1

Is to be updated to reflect the application forms in current use. Several changes have been made since the Table was developed in 1972.

Division 52--Review of Plans and Specifications

Section 340-52-010(3) is to be modified to exclude on-site sewage disposal systems of 5,000 gallons per day or less. These systems will be reviewed by contract counties and DEQ field offices in noncontract counties without the necessity of engineered plans and specifications.

In addition, Figure A-1 of Division 52 will be changed so that it is less confusing and easier to interpret.

Public notice of the proposed rule changes and pending hearing was mailed June 8, 1981. We received several requests for copies of the proposed rule changes but no comments were received prior to the hearing. The hearing was opened at 10 a.m., July 9, 1981, but was terminated at 11 a.m., when no one appeared. The hearing record was left open for 10 days. During this period we received letters from two industries in Bend requesting additional changes in the Waste Disposal Well regulations. Those letters are attached as Attachment 3.

Summation

1. ORS 468.020 grants the Commission authority to adopt rules and standards as it considers necessary in performing the functions vested by law.
2. Periodically rules need to be revised or repealed as they fail to address current policy and procedure.
3. The Department is proposing repeal of OAR Chapter 340 Divisions 42 and 43 and minor modification to Divisions 44, 45, and 52.
4. Public notice was issued and hearing held on the proposed rule changes. No testimony was received in opposition. Some written testimony was received in support of additional changes in Division 44. These changes are reflected in the rules proposed for adoption today.

Director's Recommendation

Based on the Summation, the Director recommends that the Commission repeal Divisions 42 and 43, and adopt the recommended modifications to Divisions 44, 45, and 52.



William H. Young

Attachments: 3

- Attachment 1 Statement of Need & Fiscal Impact
- Attachment 2 Proposed Rule Modifications
- Attachment 3 Two letters requesting additional changes to Waste Disposal Well Regulations

Charles K. Ashbaker:l
229-5325
WL927 (1)
July 21, 1981

Statement of Need for Rulemaking

Agenda Item No. Q, August 28, 1981 EQC Meeting

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended action to modify or revoke rules.

(1) Legal Authority

ORS 468.020 authorizes the Commission to adopt such rules and standards as it considers necessary and proper in performing the functions vested by law.

(2) Need for a Rule

Some of the Commission's rules relating to water quality are redundant, out of date, or need minor corrections in order to relate to current policy and procedure. In their present form they can be misunderstood. The Department of Environmental Quality is proposing housekeeping changes in OAR Chapter 340 Divisions 44, 45 and 52. It is proposed that Divisions 42 and 43 be revoked because they are no longer necessary.

(3) Principal Documents Relied Upon in this Rulemaking

- a. ORS 468
- b. OAR chapter 340 Divisions 42, 43, 44, 45, 52 and 71
- c. 40 CFR Parts 122, 123 and 124.

Fiscal Impact of Rulemaking

Most of the proposed rule modifications and revocations are minor in nature and do not change current policy. They will have very little fiscal impact either on the Department or the public.

The only proposed rule change which might have a fiscal impact is the proposed change to OAR 340-44-015. The present rule would not allow a building served by a waste disposal well, and subsequently destroyed by fire or other calamity, to be rebuilt unless an acceptable alternate to the waste disposal well could be used for sewage disposal. This could place a financial hardship on the owner of the facility if it couldn't be rebuilt. The proposed rule change would allow the Department to authorize continued use of the disposal well for the rebuilt structure if no acceptable alternatives were available.

Some savings in postage costs can be realized by the Department if OAR 340-45-060 is modified to remove the certified mail requirement when the Director revokes or suspends a permit upon the request of the permittee.

CKA:ak
229-5325

TABLE I
(340-45-030)

PERMIT APPLICATION FORMS

<u>Category of Applicant</u>	<u>Application Forms to be Filed</u>
I. New application to construct, and operate a Disposal System which Discharges to public waters.	
A. Domestic Sewage Treatment System -	Consolidate Application ^{1/} Forms 1 and 2A
B. Concentrated Animal Feeding or Aquatic Animal Production Facility -	Consolidated Application Forms 1 and 2B
C. Manufacturing, Commercial, Mining - or Silvicultural Operation	Consolidated Application ^{2/} Forms 1 and 2D
II. New Application to construct and Operate a Disposal System which has no discharge to public waters -	WPCF - N (DEQ-WQ-1)
III. Renewal NPDES Application for Facilities Discharging to Public Waters	
A. Domestic Sewage Treatment System, Concentrated Animal Feeding Operation, Aquatic Animal Production Facility, or MINOR manufacturing, commercial, mining or Silvicultural Operation -	NPDES - R (DEQ-WQ-3)
B. MAJOR manufacturing, commercial, mining or Silvicultural Operation -	Consolidated Application Forms 1 and 2C
IV. Renewal of All WPCF permits	WPCF - R (DEQ-WQ-2)
V. Application for Modification of an NPDES or WPCF permit -	Submit a letter detailing the requested modification. The Department may require additional information, analysis and/or application forms.

^{1/} Form 2A not yet available from EPA. Until Form is available use Standard Form A (EPA Form 7550-22).

^{2/} Form 2D not yet available from EPA. Until Form is available use Standard Form C (EPA Form 7550-23A).

Division 42

Entire Division to be repealed

Division 43

Entire Division to be repealed

Division 44 Changes

340-44-015(3), (5), (7) and (8)

- (3) After January 1, 1981, use of a waste disposal well for disposing of wastes other than sewage is prohibited except for those disposal wells which dispose of only [non-contact cooling water] specifically approved non-sewage waste waters and which are operated under a valid WPCF Permit issued by the Director.
- (5) (d) Except for waste disposal wells that dispose of [non-contact cooling water] specifically approved non-sewage waste waters, no permit shall be issued for construction and use of a waste disposal well unless the owner of the property to be using the disposal well agrees in writing not to remonstrate against connection to sewer and abandonment of the waste disposal well when notified that sewer is available. The agreement shall be recorded in county deed records and shall run as a covenant with the land.
- (7) Without first obtaining a permit issued by the Director or his authorized representative, no person shall modify any structure or change or expand any use of a structure or property that utilizes a waste disposal well. A permit shall be a written document and, except as allowed in Section(8) of this rule shall not be issued [if] unless :

- (a) The property cannot qualify for a standard subsurface sewage disposal system including the reserve area requirement; and
- (b) The property is inside a designated, municipal sewer service area; and
- (c) The owner of the property and the municipality having jurisdiction over the municipal sewer service area shall enter into a written agreement. The agreement shall include the owner's irrevocable consent to connect to the municipal sewerage service when it becomes available and to not remonstrate against formation of and inclusion into a local improvement district if such a district is deemed necessary by the municipality to finance sewer construction to the property; and
- (d) The property is a single family dwelling that is not closer than one hundred (100) feet to a municipal sewerage system. (The proposed changes or expansion of the use of the waste disposal serving the single family dwelling shall not be for the purpose of serving a commercial establishment or multiple-unit dwelling); or
- (e) The property is not a single family dwelling, is not closer than 300 feet from a municipal sewerage system, and the proposed change or expansion of the user of the waste disposal well would not create an increased waste flow; or

(f) The property is not a single family dwelling; existing sewer is not deemed available based upon the criteria established in Oregon Administrative Rules 340-71-015(5) and based upon the total average daily flow estimated from the property after the proposed modification or expansion of the use of the waste disposal well and a municipality has committed in writing to provide sewers to the property within two (2) years.

(8) The Director shall issue a permit to connect a replacement structure to a waste disposal well if:

(a) The waste disposal well previously served a structure that was unintentionally destroyed by fire or other calamity; and

(b) The property cannot qualify for a standard on-site sewage disposal system, including the reserve area requirement; and

(c) There is no evidence that the waste disposal well had been failing; and

(d) The replacement structure is approximately the same size as the destroyed structure and the use has not been significantly changed.

Division 45 Changes

340-45-010(5) through (24)

(5) "Disposal system" means a system for disposing of wastes either by surface or underground methods, and includes sewerage systems, treatment works, disposal wells and other systems but excludes [subsurface sewage disposal systems and alternate systems as defined in OAR 340-71-010] on-site sewage disposal systems of 5000 gallons per day or less, and systems which recirculate without discharge.

(7) "General permit" means a permit issued to a category of qualifying sources pursuant to 340-45-033, in lieu of individual permits being issued to each source.

[(7)] (8) "Industrial Waste" means any liquid, gaseous, radioactive, or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources.

[(8)] (9) "NPDES Permit" means a waste discharge permit issued in accordance with requirements and procedures of the National Pollutant Discharge Elimination System authorized by the Federal Act and of OAR Chapter 340, rules 340-45-005 through 340-45-065.

- [(9)] (10) "Navigable Waters" means all navigable waters of the United States and their tributaries; interstate waters; intrastate lakes, rivers, and streams which are used by interstate travelers for recreation or other purposes or from which fish or shellfish are taken and sold in interstate commerce or which are utilized for industrial purposes by industries in interstate commerce.
- [(10)] (11) "Person" means the United States and agencies thereof, any state, any individual, public or private corporation, political subdivision, governmental agency, municipality, copartnership, association, firm, trust, estate, or any other legal entity whatever.
- [(11)] (12) "Point Source" means any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.
- [(12)] (13) "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewerage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.

- [(13)] (14) "Pre-treatment" means the waste treatment which might take place prior to discharging to a sewerage system including, but not limited to pH adjustment, oil and grease removal, screening, and detoxification.
- [(14)] (15) "Process Waste Water" means waste water contaminated by industrial processes but not including non-contact cooling water or storm runoff.
- [(15)] (16) "Public Waters" or "waters of the state" include lakes, bays, ponds, impounding reservoirs, 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.
- [(16)] (17) "Regional Administrator" means the Regional Administrator of Region X of the U.S. Environmental Protection Agency.
- [(17)] (18) "Sewage" means the water-carried human or animal waste from residences, building, industrial establishments, or other places, together with such ground water infiltration and surface water as may be present. The mixture of sewage as above defined with wastes

- or industrial wastes, as defined in sections [(7)] (8) and [(22)] (23) of this rule, shall also be considered "sewage" within the meaning of these regulations.
- [(19)] (20) "State" means the State of Oregon.
- [(20)] (21) "Toxic Waste" means any waste which will cause or can reasonably be expected to cause a hazard to fish or other aquatic life or to human or animal life in the environment.
- [(21)] (22) "Treatment" or "waste treatment" means the alteration of the quality of waste waters by physical, chemical, or biological means or a combination thereof such that the tendency of said wastes to cause any degradation in water quality or other environmental conditions is reduced.
- [(22)] (23) "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive, or other substances which will or may cause pollution or tend to cause pollution of any waters of the state.
- [(23)] (24) "WPCF permit" means a Water Pollution Control Facilities permit to construct and operate a disposal system with no discharge to navigable waters. A WPCF permit is issued by the Department in accordance with the procedures of OAR Chapter 340, rules 340-14-005 through 340-14-050.

340-45-035(4) and (5)

- (4) [For every discharge which has a total volume of more than 500,000 gallons on any day of the year, the Department shall prepare a fact sheet which contains the following:
- (a) A sketch or detailed description of the location of the discharge;
 - (b) A quantitative description of the discharge, including the rate or frequency of the discharge;
 - (c) The tentative determination required under section 340-45-035(2);
 - (d) An identification of the receiving stream with respect to beneficial uses, water quality standards, and effluent standards;
 - (e) A description of the procedures to be followed for finalizing the permit; and
 - (f) Procedures for requesting a public hearing and other procedures by which the public may participate.]

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 or 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.

- (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.

340-45-060

- (1) In the event that it becomes necessary for the Director to suspend or revoke a NPDES permit due to non-compliance with the terms of the NPDES permit, unapproved changes in operation, false information submitted in the application, or any other cause, the Director shall notify the permittee by registered or certified mail of his intent to suspend or revoke the NPDES permit. Such notification shall include the reasons for the suspension or revocation. The suspension or revocation shall become effective 20 days from the date of mailing of such notice unless within that time the permittee requests a hearing before the Commission or its authorized representative. Such request for a hearing shall be made in writing to the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the regulations of the Department. The Director may

suspend or revoke an NPDES without notification by registered or certified mail if the suspension or revocation is in response to a request for such from the permittee.

- (2) If the Department finds that there is a serious danger to the public health or safety or that irreparable damage to a resource will occur, it may, pursuant to applicable statutes, suspend or revoke a NPDES permit effective immediately. Notice of such suspension or revocation must state the reasons for such action and advise the permittee that he may request a hearing before the Commission or its authorized representative. Such request for a hearing shall be made in writing to the Director within 90 days of the date of suspension and shall state the grounds for the request. Any hearing shall be conducted pursuant to the regulations of the Department.

Division 52 Changes

340-52-010 (3)

- (3) "Disposal system" means a system for disposing of wastes, either by surface or underground methods, and includes municipal sewerage systems, domestic sewerage systems except on-site sewage disposal systems of 5000 gallons per day or less, industrial and agricultural waste systems, treatment works, disposal wells and other systems.

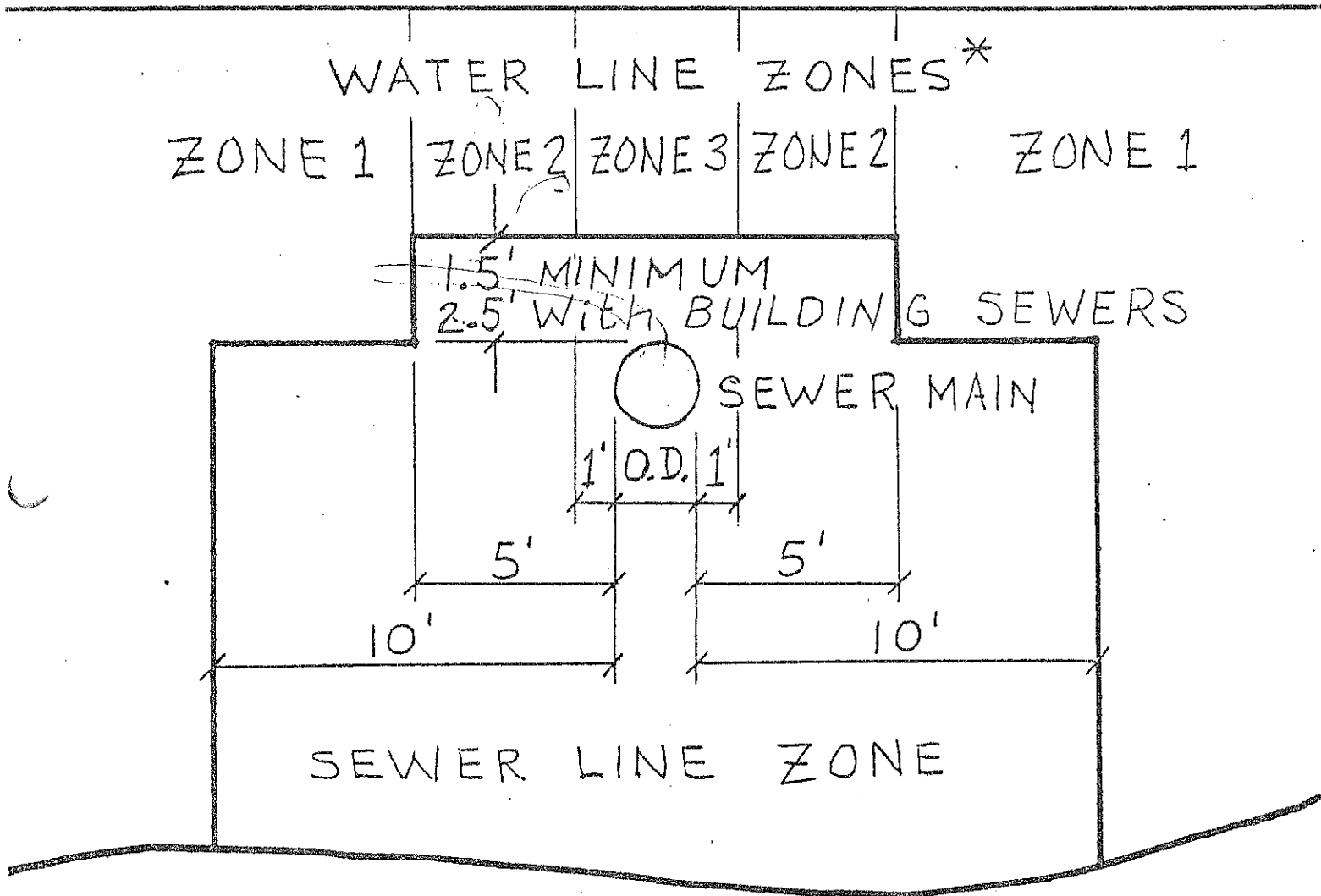
ORS 468.700 (1)

CKA:k

WK790

WATER LINE

- ZONE 1 - CROSSING RESTRICTIONS APPLY ONLY
- ZONE 2 - CASE-BY-CASE DETERMINATIONS
- ZONE 3 - PARALLEL WATER LINE PROHIBITED

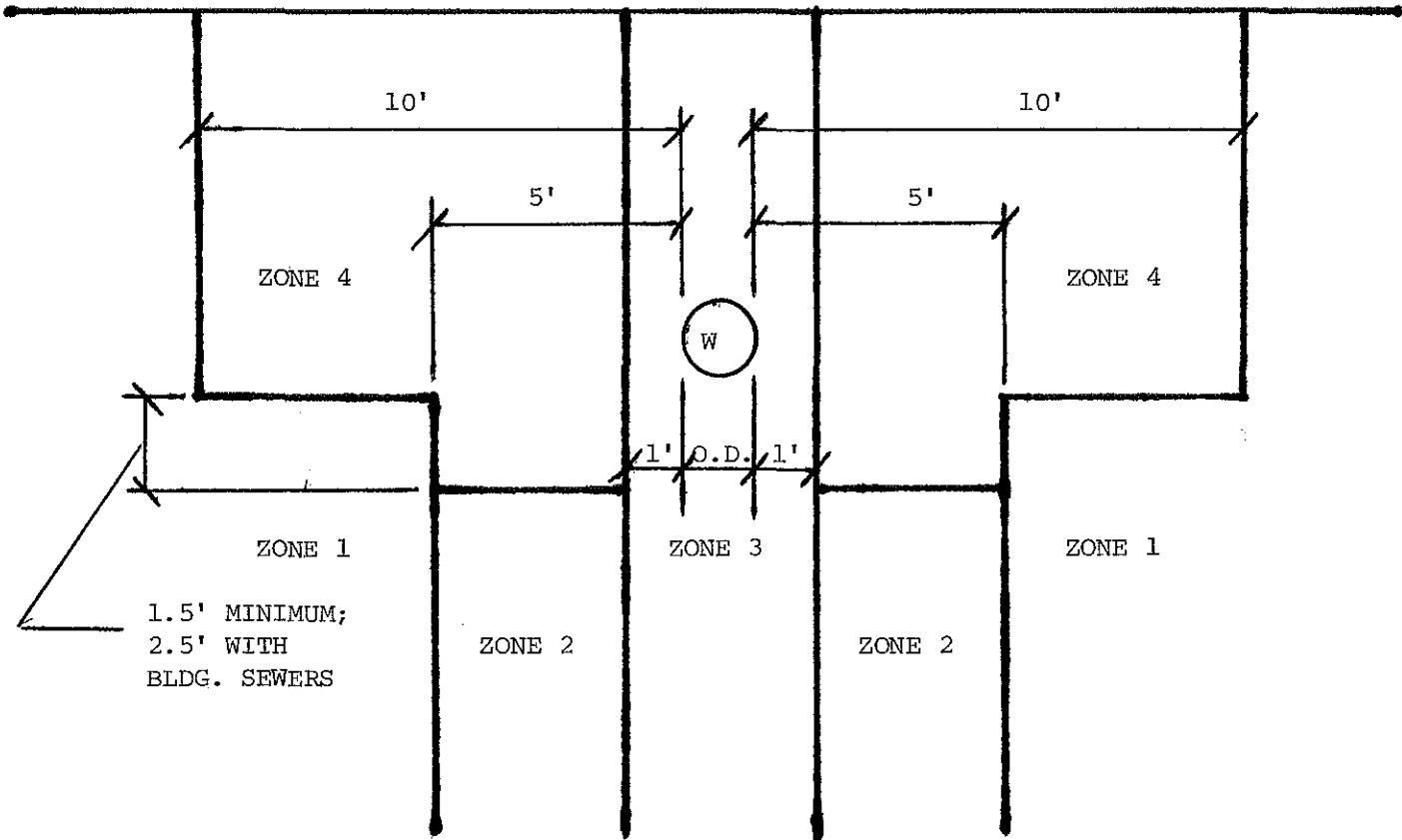


* A PARALLEL WATER LINE SHOULD BE LOCATED ON UNDISTURBED EARTH IN ALL CASES.

FIGURE A-1

SEPARATION OF PARALLEL
WATER-SEWER LINES

W = WATERLINE



SEWER LINE ZONES

- ZONE 1 SEWERLINE CAN BE LAID IN THIS AREA WITH NO SPECIAL REQUIREMENTS OF EITHER CONSTRUCTION OR MATERIALS.
- ZONE 2 INSTALLING A SEWER LINE IN THIS ZONE IS NOT ADVISABLE AND MUST BE JUSTIFIED IN EACH CASE. WATER LINE SHOULD BE LOCATED ON A BENCH OF UNDISTURBED EARTH WHEN CONSTRUCTED CONCURRENTLY IN A COMMON TRENCH WITH SEWER LINE.
- ZONE 3 INSTALLING A SEWER MAIN DIRECTLY OVER A WATER MAIN OR DIRECTLY UNDER A WATER MAIN IN THIS ZONE IS PROHIBITED SINCE TAPPING AND O. & M. OF EACH LINE WOULD BE IMPAIRED.
- ZONE 4 SEWER LINE CONSTRUCTION IN THIS ZONE WOULD GENERALLY NOT BE PERMITTED. EACH INSTALLATION MUST BE JUSTIFIED. IF CONSTRUCTION WAS PERMITTED, PRESSURE PIPE MATERIALS FOR THE SEWER LINE WOULD BE REQUIRED.

FIGURE A-1

SEPARATION OF PARALLEL

WATER-SEWER LINES

Letters Requesting Additional Changes to Waste Disposal Well Regulations



Willamette Industries, Inc.

KorPINE DIVISION

P. O. Box 1246

Bend, Oregon 97701

503/382-6001

July 9, 1981

Department of Environmental Quality
Water Quality Division
P. O. Box 1760
Portland, Oregon 97208

Attention: Mr. Kent Ashbaker

Subject: Disposal Well Rules

Gentlemen:

I understand you are in the process of reviewing and perhaps revising present "Disposal Well Rules".

We would suggest that a revision which would allow specific non-toxic waste water to be disposed of in these wells on a case by case basis with the approval of your office be considered.

Very truly yours,

John McK. Bosch
General Manager

JMcKB/jf

cc: M. Jones
Bob Danko

RECEIVED

JUL 11 1981

Water Quality Division
Dept. of Environ. Quality



**Diamond
International**

Lumber

ATTACHMENT 3-2

Oregon Lumber
a division of
Diamond International Corporation

P.O. Box 1111
Bend, OR 97701
503/382-2511

Dept. of Environmental Quality
Water Quality Division
Attn.: Kent Ashbacker
P.O. Box 1760
Portland, Oregon 97207

Gentlemen:

In your consideration of rule changes for the use of drill holes at
industrial sites:

We request that the rules be changed to allow discharge of certain specific
non-toxic wastes into drill holes as approved on a case by case basis.

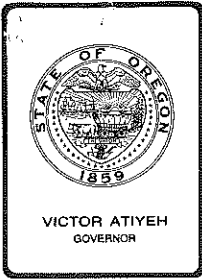
Sincerely,

David M. Miller
Maintenance Superintendent

DM/mm

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUL 14 1981

WATER QUALITY CONTROL



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. R , August 28, 1981, EQC Meeting

Proposed Adoption of Additions to OAR Chapter 340,
Division 41 Statewide Water Quality Management Plan

Background

1. Two legislative policy statements provide legal authority over pollution of groundwater. One is ORS 468.710 in the Pollution Control chapter administered by DEQ and the other is ORS 537.525 in the Appropriation of Water Generally chapter administered by the Water Resources Department.
2. The Department submitted to the Commission in April 1980, a report, "Groundwater Quality Protection--Background Discussion and Proposed Policy." The Commission approved the proposed policy as an interim statement of policy with the adoption of a final policy pending:
 - a. Broad public review of the proposed policy through wide distribution of the report and through scheduled meetings.
 - b. Evaluation and consideration of public input in finalizing a recommended groundwater protection policy to the Commission.
3. The Department employed the following public involvement process in arriving at a recommendation for a final groundwater quality protection policy:
 - a. Circulated 1,400 copies of the report in December 1980, to various governmental agencies and the public, inviting comments.
 - b. Members of the Department's Water Quality Policy Advisory Committee (PAC) chaired 8 of the 9 scheduled public meetings held statewide in January 1981, to discuss the proposed policy statements.

At its monthly meeting held on February 9, 1981, the PAC unanimously passed a motion which in essence stated that ample opportunity to gain public debate and discussion of the proposed groundwater quality policy was completed.

- c. The staff evaluated the comments (both written and oral) and made the following modifications to the circulated policy draft:
 - (1) Add a definition for nonpoint sources to be incorporated into OAR 340-41-006 under the heading of Definitions.
 - (2) Propose an additional policy statement to address the potential adverse impact to groundwater quality resulting from nonpoint sources.
 - (3) Propose an additional policy statement to emphasize that policy statements proposed to prevent and control groundwater pollution potentially resulting from point and nonpoint sources of waste neither overlap nor conflict with programs administered by the Water Resources Department.
 - (4) Amend other policy statements accordingly based upon recommendations received from the public.
4. In March 1981, the Commission reviewed the revised policy statement and authorized the Department to hold a public hearing with the intent to codify the proposed definition for nonpoint sources and the final Groundwater Quality Protection Policy, as displayed in Attachment 1, into Oregon Administrative Rules.
5. On May 18, 1981, the following were filed with the Secretary of State and the "Notice of Proposed Adoption of Rules" was published in the June 1, 1981 issue of the Bulletin: (See Attachment 1).
 - a. Notice of Proposed Adoption of Rules
 - b. Statement of Need
 - c. Land Use Consistency Statement
6. A public hearing was held in Portland on June 30, 1981, at 10 a.m. Of the six persons who attended this hearing, two presented testimony--Water Resources Department and Lane Council of Government staff. The hearing officer's report, attendance record, and written correspondence are displayed in Attachment 2.

Evaluation

Attachment 3 contains an analysis of testimony presented. Following is a brief summary of that attachment.

The staff evaluated the comments (both written and oral) and incorporated the intent of these recommendations, consistent with generalized language appropriate for policy statements, into the proposed final policy for groundwater quality protection. The finalized definition for "Nonpoint Sources" and General Groundwater Quality Protection Policy are shown in Attachment 4.

1. Nonpoint Source Definition

- a. Two respondents recommended revisions to the definition initially proposed by the Department.
- b. The Department incorporated the intent of these suggestions into a revised definition for nonpoint sources, using terms already defined under OAR 340-41-006, Definitions.

2. General Comments

- a. One respondent suggested the Department propose definitions for other terms which appeared in the background report but not in the proposed policy. The Department does not believe this would be appropriate.
- b. The Water Resources Department suggested that the regulatory tone of the opening statement of the proposed General Groundwater Quality Protection Policy may conflict with the Statutory direction of their department. The Attorney General's office has advised the staff to revise the wording of this statement.

3. Specific comments relating to proposed Planning Policies 1 through 5 are as follows:

- a. Policy Statements 1, 2, 4, and 5 were revised to clarify the roles and responsibilities of DEQ in protecting groundwater quality so that they will not be in apparent conflict with those of the Water Resources Department.
- b. The Water Resources Department suggested that Policy Statement 3 be revised to state that drinking water developed from shallow aquifers should be treated because of their potential for contamination and because no reasonable testing program can assure its safety on a continuous basis. The Department recognizes the difficulty in keeping contaminants from reaching shallow water table aquifers, but it is also impractical to expect individual households to operate and maintain a water treatment system. Thus, since homeowners, among others, can develop up to 15,000 gallons per day of groundwater without obtaining a permit, the Department believes that this public policy, in its present form, is appropriate.

4. Specific comments relating to Proposed Program Policies 6 through 12 are as follows:

- a. One respondent recommended that Policy 6 be deleted and that Policy 7 be set up as the mechanism for assuring protection of groundwater quality because it (Policy 6) would require implementation of best practicable treatment at all potential pollution sources and environmental improvements would not be demonstrated in some areas. The goal of Policy 6 is to protect rather than to improve groundwater quality, using the existing technology as the base to treat the waste sources currently regulated by the Department.
- b. The Water Resources Department recommended that their director's designation of critical water areas be referenced in Policy 7 instead of the reference to Sole Source Aquifer. The reason given is that if DEQ administered the Drinking Water Program, it could be construed as acquiescing the state's present authority to allocate and to determine the future beneficial uses of groundwater. According to the Federal Safe Drinking Water Act of 1974, EPA can determine, either on its own initiative or upon receiving a petition from a community, that an area has an aquifer which is its sole or principal drinking water source. If EPA finds that contamination of such an aquifer will cause a significant health hazard, it may delay or stop commitment of federal assistance for any projects or activities that cause such contamination.

The Department proposes to revise Policy 7, incorporating the reference to critical groundwater areas and retaining the reference to sole source aquifer.

- c. The Attorney General's office advised the Department to make some minor revisions to Policies 8 and 10, which are shown in the finalized policy.
- d. The Water Resources Department recommended that the terms, "groundwater protection" be clarified in Policy 9. The Department proposes to insert the word "quality" in between those two words.
- e. Program Policy 11 addresses potential groundwater contamination resulting from nonpoint sources. A respondent recommended that chemical application and handling be done in compliance with label instructions, not state-of-the-art management practices (Best Management Practices). Another respondent suggested that spill prevention or hazardous waste handling be tied to specific permit processes.

The Department believes that the best management practices relating to chemicals includes: following label instructions on application and handling of the chemical as well as using appropriate practices in the mixing of chemicals, the cleaning of equipment, and the disposing of empty or near empty containers. These latter activities are the ones that have caused water quality problems, based on the Department's past experience.

- f. Program Policy 12 emphasizes that the policy statements proposed to prevent and control groundwater pollution resulting from point and nonpoint sources of waste neither overlap nor conflict with programs administered by the Water Resources Department. The Water Resources Department, however, suggested that while this policy is a change from the previous ones, it might not insure that needed direction.

The Department believes that revisions made in almost all of the policy statements should prevent misunderstandings of DEQ's role and responsibilities in protecting groundwater quality.

Summation

1. In April 1980, the Commission approved a staff prepared proposed policy for the protection of groundwater quality as an interim statement of policy, pending broad public review and consideration of their input.
2. In December 1980, the Department distributed to the public 1,400 copies of a background report containing the proposed policy. Nine public meetings were held statewide in January 1981, to discuss the report and proposed policy; eight of the meetings were chaired by the Department's PAC.
3. The Department evaluated the comments received, revised the statements of policy accordingly, proposed additional actions for the Commission to consider, and requested and was granted authorization in March 1981, to hold a public hearing with the intent to codify the proposed definition for nonpoint sources and the final Groundwater Quality Protection Policy into Oregon Administrative Rules.
4. On June 10, 1981, a public hearing was held in Portland to receive testimony on the revised policy.
5. Both oral and written comments received from the public hearing were evaluated, leading to revisions of language for the following items:
 - a. Nonpoint source definition
 - b. Opening statement of the General Groundwater Quality Protection Policy.
 - c. Proposed Planning Policy statements 1, 2, 4, and 5.
 - d. Proposed Program Policy statements 7, 8, 9, 10, and 11.

K

EQC Agenda Item No. R
August 28, 1981
Page 6

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt the definition of Nonpoint Sources and the General Groundwater Quality Protection Policy, as proposed in Attachment 4, as administrative rules to be added to OAR Chapter 340, Division 41.



William H. Young

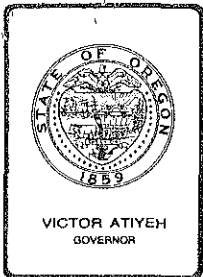
Attachments: 5

1. Public Notice and Proposal submitted to Hearing
2. Hearing Officer's Report
3. Evaluation of Hearing
4. Proposed Rule
5. Statements of Need and Fiscal Impact

Edison L. Quan:1
TL403 (1)
229-6978
July 30, 1981

6

1	HLO ELQ File		
2	ELQ		
File:	Sub of State		



Department of Environmental Quality

522 S.W. 5th AVENUE, BOX 1760, PORTLAND, OREGON 97207

FILED
MAY 18 1981
NORMA PAULUS
SECRETARY OF STATE

May 13, 1981

Ms. Norma Paulus
Secretary of State
136 State Capitol
Salem, OR 97310

Attention: The Bulletin

Dear Ms. Paulus:

Please publish the attached "Notice of Proposed Adoption of Rules" in the June 1, 1981 issue of The Bulletin.

Also, we would appreciate your filing of the attached Statement of Need and the Land Use Consistency Statement.

Sincerely,

Harold L. Sawyer
Administrator
Water Quality Division

ELQ:ak
Attachments (Groundwater Quality
Protection Policy)

cc: Pam Contessa, DEQ

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
MAY 19 1981

WATER QUALITY CONTROL

Before the Environmental Quality Commission
of the State of Oregon

In the Matter of the Amendment	)	Notice of Proposed
of the existing definitions in)	
rule OAR-41-006 and adoption	)	Adoption of Rules
of a new rule OAR 340-41-029)	
establishing Groundwater Quality)	
Protection Policy)	

1. On June 30, 1981, at 10 a.m., a public hearing will be held in room 1400 of the Yeon Building, 522 S.W. Fifth Ave., Portland, Oregon, to consider the adoption by the Environmental Quality Commission of proposed rule 340-41-029 establishing a general Groundwater Quality Control Policy for the State of Oregon and amendment of rule 340-41-006 to establish a new definition for the term "nonpoint source."
2. The proposed rule establishes general policy guidance to citizens, other government units and Department of Environmental Quality staff in matters relating to the prevention and abatement of groundwater pollution. Copies of the specific proposed rule may be obtained from the Department of Environmental Quality, Water Quality Division, 522 S.W. Fifth Ave., Portland, Oregon. (P.O. Box 1760, Portland 97207) Attention: Ed Quan, Phone: 229-6978.
3. Interested persons may present their views on the proposed policy either orally or in writing at the hearing. The hearing record will remain open until July 10, 1981, for submittal of additional written comments. Final action will be taken by the EQC at a regularly scheduled meeting following the hearing.
4. Citation of statutory authority, statement of need, principal documents relied upon and statement of fiscal impact and the Land Use Consistency Statement, are filed with the Secretary of State.
5. A Department staff member or EQC hearings officer will preside over and conduct the hearing.

Dated May 13, 1981

TL338 (1)

Before the Environmental Quality Commission
of the State of Oregon

In the Matter of Amendment)	
of existing definitions in rule	)	Land Use
OAR 340-41-006 and adoption of)	
a new rule OAR 340-41-029	)	Consistency Statement
establishing Groundwater Quality)	
Protection Policy)	

The proposed policy set forth in the above-cited rule appears to be consistent with statewide planning goals.

The proposed policy relates primarily to goals 5, 6, 10, and 11.

With regard to goal 5 (Natural Resources) the purpose of the proposed policy is to establish general guidance for the protection of the quality of the groundwater resource by preventing and controlling pollution from waste disposal activities.

With respect to goal 6 (Air, Water and Land Resources Quality), the proposed policy will provide general guidance in the planning process to assure protection of groundwater quality.

With respect to goal 10 (Housing), the proposed policy can lead to limitations in some areas of the state on the density of housing development using on-site sewage disposal so as to control pollutant loading to groundwater.

With respect to goal 11 (Public Facilities), the proposed policy may necessitate construction of sewers to accommodate planned densities and protect groundwater.

Public comment on these proposals is invited.

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.

Dated May 13, 1981

TL338.B (1)

Before the Environmental Quality Commission
of the State of Oregon

In the Matter of Amendment	)	Statutory Authority,
of existing definitions in rule	)	Statement of Need,
OAR 340-41-006 and adoption of	)	Principal Documents
a new rule OAR 340-41-029	)	Relied Upon and State-
establishing Groundwater Quality	)	ment of Fiscal Impact
Protection Policy)	

1. Citation of Statutory Authority:

ORS 468.020 authorizes the Environmental Quality Commission to adopt rules necessary to carry out its responsibilities. ORS 468.710 sets forth State policy for control and prevention of pollution of waters of the State. ORS 468.700(8) defines waters of the State to include groundwater.

2. Need for the Rule:

The Commission and Department are increasingly becoming involved in case-by-case correction of groundwater pollution problems. Historically, efforts have concentrated on pollution control in surface waters. General policy guidance is needed to assure general uniformity in the approaches used to prevent and abate groundwater pollution.

3. Documents Relied Upon:

Report entitled "Groundwater Quality Protection, Background Discussion and Proposed Policy", prepared by the Oregon Department of Environmental Quality, April 1980 (revised August 1980). This document is available for public inspection at the office of the Department of Environmental Quality, Water Quality Division, 522 S.W. Fifth Avenue, Portland, Oregon, during regular business hours, 8 a.m. to 5 p.m., Monday through Friday.

4. Fiscal Impact:

The proposed policy seeks to initiate conscious efforts to prevent groundwater pollution and protect beneficial uses such as drinking water. Such pollution is extremely costly to correct. Thus, the long-range fiscal impact to the public and state and local governments should be to reduce regulatory and abatement costs. Groundwater pollution preventive efforts can necessitate modification of plans for development or use of land and thus impose some cost burden on the owner of the land.

If the policy is not adopted, increased costs to abate groundwater pollution are expected.

Dated May 13, 1981

TL338.A (1)

PROPOSED ADDITIONS TO OAR CHAPTER 340
 DIVISION 41
 STATEWIDE WATER QUALITY MANAGEMENT PLAN

I. Amend OAR 340-41-006 to add a new definition as follows:

Definitions

340-41-006 Definitions applicable to all basins unless context requires otherwise:

- .
- .
- .
- (17) "Nonpoint Sources" means discharges into the waters of the state from diffuse waste sources that do not have discrete, confinable, and discernible conveyances. These sources are often associated with rainfall events and various land and product management activities.

II. Add a new Section of Policy as follows: (All language is new. For convenience, underscored and bracketed words indicate changes from the April, 1980 Interim Policy Statement.)

340-41-029

[PROPOSED] GENERAL GROUNDWATER QUALITY PROTECTION POLICY [(Approved as an Interim Statement of Policy by the Environmental Quality Commission on April 18 1980).]

The following statements of policy shall guide federal agencies and state agencies, cities, counties, industries, citizens, and the Department of Environmental Quality staff in their efforts to protect the quality of groundwater:

PLANNING POLICIES

- (1) [A.] It is the policy of the EQC that impairment of the natural quality of groundwater by pollution from man's activities be prevented or controlled within practicable limits to protect presently recognized beneficial uses and assure protection of the resource for beneficial use by future generations.
- (2) [H.] The Department should attempt to identify sensitive aquifers (areas where shallow aquifers underlay industrial sites, urbanizable areas, developing or planned rural residential concentrations, etc.), and assure that appropriate studies and planning actions are undertaken to protect groundwater quality.
- (3) [I.] In order to assure maximum reasonable protection of public health, the public should be [made aware] informed that groundwater-- and most particularly local flow systems or shallow groundwaters-- should not be assumed to be safe for domestic use unless quality testing demonstrates a safe supply. Domestic water drawn from shallow aquifers should be tested frequently to assure its continued safety for use.

- (4) [J.] The Department [should seek the] will assist[ance] and [cooperation of] cooperate with the Water Resources Department to identify and characterize aquifers . [and] The Department will seek the assistance and cooperation of the Water Resources Department to design an ambient monitoring program adequate to determine long-term quality trends for significant groundwater flow systems. The Department will also seek the advice, assistance, and cooperation of local, state, and federal agencies to identify and resolve groundwater quality problems.
- (5) [G.] The EQC recognizes that orderly financing and implementation of a long-range groundwater improvement and protection plan may necessitate some increased quality degradation for a short period of time. The EQC may approve [an overall] a groundwater protection plan which allows limited short-term further degradation provided:
- (a) [1.] Beneficial use impairment will not be significantly increased
 - (b) [2.] Public health risk is not significantly increased,
 - (c) [3.] Irreparable damage to the groundwater resource does not occur
 - (d) [4.] The [comprehensive] groundwater protection plan has been duly adopted as part of the comprehensive plan by the responsible local government,
 - (e) [5.] A financing plan has been developed and adopted to assure implementation, and
 - (f) [6.] The responsible local government has committed to implement the program in accordance with a timetable which is included in a stipulated or other joint agreement with the EQC.

PROGRAM POLICIES

- (6) [B.] Consistent with general policies for protection of surface water, highest and best practicable treatment and control of sewage, industrial wastes, and landfill leachates, shall be required so as to minimize potential pollutant loading to groundwater. Among other factors, energy, economics, public health protection, potential value of the groundwater resource to present and future generations, and time required for recovery of quality after elimination of pollutant loadings may be considered in arriving at a case-by-case determination of highest and best practicable treatment and control. For areas where urban density development is planned or is occurring and where rapidly draining soils overlay local groundwater flow systems and their associated shallow aquifers, the collection, treatment and disposal of sewage, industrial wastes and leachates from landfills will be deemed highest and best practicable treatment and control unless otherwise approved by the EQC pursuant to [C.] (7) or [D.] (8) below.

- (7) [C.] Controls more stringent than those identified in paragraph [B.] 6. above may be required [if] to the extent demonstrated necessary by DEQ to assure protection of beneficial uses. Designation of a sole source aquifer pursuant to the [f] Federal Safe Drinking Water Act will be recognized as one possible situation necessitating [mechanism for] establishment of more stringent controls.
- (8) [D.] Less stringent controls than those identified in paragraph [B.] 6. above may be approved by the EQC for a specific area if a request, including technical studies [show] showing that lesser controls will adequately protect beneficial uses[,] is made by representatives of the area and if the request is consistent with other state laws and regulations.
- (9) [E.] Disposal of wastes onto or into the ground in a manner which allows potential movement to groundwater shall be authorized and regulated by [either a] the existing rules of the Department's Water Pollution Control Facility (WPCF) Permit, [a] Solid Waste Disposal Facility Permit, or [an] On-site (Subsurface) Sewage Disposal System Construction Permit, whichever is appropriate.
- (a) [1.] WPCF permits shall specify appropriate groundwater protection requirements and monitoring and reporting requirements. Such permits shall be used in all cases other than for those covered by Solid Waste Disposal Facility Permit or On-site (subsurface) sewage disposal permits.
- (b) [2.] Solid Waste Disposal Facility Permits shall be used for landfills and sludge disposal not covered by NPDES or WPCF permits. Such permits shall specify appropriate groundwater protection requirements and monitoring and reporting requirements.
- (c) [3.] On-site Sewage Disposal System Construction permits shall be issued in accordance with adopted rules. It is recognized that existing rules may not be adequate in all cases to protect groundwater quality. Therefore, as deficiencies are documented, the Department shall propose rule amendments to correct the deficiencies.
- (10) [F.] Where groundwater quality is being degraded by waste disposal practices, the Department will require individual sources to improve or modify waste treatment and disposal practices as necessary to reduce the pollutant loading to groundwater. Such requirements will be implemented by permit condition or repair order as appropriate. For areas where an areawide approach is essential (rather than an individual approach), the Department will seek cooperation of the responsible local government to develop and implement a groundwater protection plan to abate

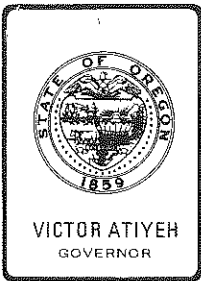
the problem. A stipulated or other joint agreement should be used in such cases to delineate the planned correction program and timetable. The Department will resort to more formal pollution abatement actions such as abatement orders, civil penalties, etc., only if voluntary compliance efforts within a specified time frame are not successful.

- (11) In order to minimize groundwater quality degradation potentially resulting from nonpoint sources, it is the policy of the EQC that activities associated with land and animal management, chemical application and handling, and spills be conducted using the appropriate state of the art management practices ("Best Management Practices").
- (12) The EQC recognizes and supports the authority and responsibilities of the Water Resources Department and Water Policy Review Board in the management of groundwater and protection of groundwater quality. In particular, existing programs to regulate well construction and to control the withdrawal of groundwater provide important quality protective opportunities. These policies are intended to complement and not duplicate the programs of the Water Resources Department.

ELQ:1

WL609 (1)

2/18/81



Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

• MEMORANDUM

To: Environmental Quality Commission

From: Thomas Lucas, Hearing Officer

Subject: Proposed Adoption of Additions to OAR Chapter 340,
Division 41, Statewide Water Quality Management Plan

Summary of Hearing

On June 30, 1981, at 10:10 a.m., a public hearing was called to order in Room 1400 of the Yeon Building, 522 S.W. Fifth Avenue, Portland, Oregon. The hearing record remained open until July 10, 1981, to receive additional written comments from the public. The purpose of the hearing was to consider the adoption, by the Environmental Quality Commission, of proposed rule 340-41-029 establishing a general Groundwater Quality Protection Policy for the State of Oregon and amendment of rule 340-41-006 to establish a new definition for the term "nonpoint source."

The proceedings of this hearing were recorded on tape which is on file at the DEQ office in Portland, Oregon.

Of the six persons who attended the hearing, two presented oral testimony. In addition, five persons submitted written comments before and after the hearing. The written comments received are attached to this report. In essence, the oral and written comments recommended that the proposed definition and statements of policy be clarified.

Summary of Testimony

Mr. Chris Wheeler, Deputy Director of the Oregon Water Resources Department, presented oral testimony. Mr. Wheeler expressed concerns with the language in some of the proposed planning and program policies because the intent may be construed as either duplicating or conflicting with Water Resources Department's charges of responsibility. His specific concerns and recommendations are outlined and addressed in Attachment 3, under Evaluation.

Environmental Quality Commission
Hearing Officer Report
Page 2

Mr. Garritt Rosenthal, representing the Lane Council of Government's (L-COG) 208 Program and the L-COG 208 Areawide Advisory Committee (AAC), reiterated the recommendations L-COG 208 Program proposed for improving and clarifying the groundwater quality policy and those formulated by the L-COG AAC for clarifying the nonpoint sources definition. These recommendations were sent to the Department on April 8 and June 15, 1981, respectively by the two agencies. The letters are appended to this attachment.



Thomas J. Lucas, Hearing Officer

ELQ:1
TL403.A
July 23, 1981

Public Hearing Attendance

PROPOSED ADDITIONS TO OAR CHAPTER 340
 DIVISION 41
 STATEWIDE WATER QUALITY MANAGEMENT PLAN

1. "Nonpoint Sources" Definition
2. General Groundwater Quality Protection Plan

June 30, 1981 - 10 a.m. - Portland, Oregon

<u>Name</u>	<u>Mailing Address</u>
Bob Willis	Portland Water Bureau 1800 S. W. Sixth Ave., Portland, OR 97208
Joe Gonthier	U. S. Geological Survey Water Resources Division 630 N. E. Holladay St., Portland, OR 97232
*Chris L. Wheeler	555 13th N. E., Salem, OR 97310
*Gerritt H. Rosenthal	Lane Council of Governments 125 Eighth Ave., E., Eugene, OR 97401
W. F. Ingraham	7187 S. E. Eldorado Ct., Milwaukie, OR 97222
Roy Burns	Lane County Environmental Management 125 E. Eighth, Eugene, OR 97401

* Presented testimony

ELQ:ak
 July 16, 1981

WRITTEN PUBLIC COMMENTS

1. R. C. Newcomb, Consulting Geologist
Portland, March 11.
2. John Neely, Jr.
Eugene, May 23.
3. Gerritt Rosenthal, 208 Program Manager
Lane Council of Governments
Eugene, April 8.
4. Laurie Power, Chairperson
Lane Council of Governments - 208
Areawide Advisory Committee
Eugene, June 15.
5. G. A. Kennar, Site Manager
Monsanto Plastics & Resins Co.
Eugene, July 8

Hal Sawyer

R. C. NEWCOMB
CONSULTING GEOLOGIST
March 11, 1981

ELQ

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

MAR 12 1981

OFFICE OF THE DIRECTOR

The Director
Oregon Environmental Quality Commission
522 SW Fifth Avenue
Box 1760
Portland, Oregon 97207

Subject: Public comment on "Proposed Groundwater Quality Protection
Policy for Agenda No. E, March 13, 1981"

Dear Sirs:

This recent description of the gathering of public testimony indicates that the draft of the Policy Statement of April 1980 has been improved some but still lacks some reality that might be enhanced by a consideration of the comments listed below:

1. Legal authority for abatement of groundwater pollution, as listed on the first page: In addition to ORS 468.710 and ORS 537.525, the reference to ORS 537.775 could be included.

2. Throughout this account, and more so in the parent policy statement, there are various comments that indicate little is known about the aquifers within the state (example- line 6, page A-29). Actually, the state is well covered by definitive groundwater reports in which the major (and some minor) aquifers are described and delineated. It is no great task for a groundwater geologist to further portray the extent and character of the aquifers of the state. Most of these reports have been produced by the Groundwater Branch of the Geological Survey in cooperation with the Water Resources Department. They are given in the lists of groundwater publications, and failure to mention them indicates lack of knowledge of the existing background information.

3. The proposed definition of nonpoint sources of pollution, as given on Attachment E-1, leaves much to be desired. I would suggest that the following may serve as a better start:

(17) "Nonpoint Sources" means materials or their derivatives that can enter the water resources and degrade the quality of the water owing to the materials' capability for migrating from diverse or wide spread distribution to reach the water resources through natural or artificial processes and modes of movement.

4. The diction can be improved by correction of such items as: The overuse of the word "impact" can be alleviated by use of the more specific "affect" or other synonym. Use of "impact" as a verb is considered humorous by many. The reference to citizens as "publics" is not desirable.

5. Other items:

On page A-1 under Hal Sawyer notes, "the emergence of groundwater pollution problems," indicates this type of pollution is new. It would be less naive to recognize that it has occurred for many decades. On page A-22, the last sentence refers to Price's report on the Keiser aluminum sulfate contamination of 1945-46. I believe the statement that the pollution still exists is an exaggeration, because it has not been

WATER QUALITY CONTROL

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State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
MARCH 2 6 1981

Section 10

Section 10 of the Act provides that the Commission shall have the power to make such orders as it may think fit for giving effect to the provisions of this Act.

The Commission may also make such orders as it may think fit for giving effect to the provisions of this Act.

Section 11

Section 11 of the Act provides that the Commission shall have the power to make such orders as it may think fit for giving effect to the provisions of this Act.

Section 12 of the Act provides that the Commission shall have the power to make such orders as it may think fit for giving effect to the provisions of this Act.

Section 13 of the Act provides that the Commission shall have the power to make such orders as it may think fit for giving effect to the provisions of this Act.

Section 14 of the Act provides that the Commission shall have the power to make such orders as it may think fit for giving effect to the provisions of this Act.

Section 15 of the Act provides that the Commission shall have the power to make such orders as it may think fit for giving effect to the provisions of this Act.

Section 16 of the Act provides that the Commission shall have the power to make such orders as it may think fit for giving effect to the provisions of this Act.

Section 17

Section 17 of the Act provides that the Commission shall have the power to make such orders as it may think fit for giving effect to the provisions of this Act.

Page 2- "Public Comment on Proposed Goundwater Quality Protection, etc

at significant levels for the last 10 or so years.

Sincerely yours

A handwritten signature in cursive script that reads "R. C. Newcomb".

R. C. Newcomb

May 23, 1981

Mr. Edison L. Quan
 DEQ Biologist
 Box 1760
 Portland, Oregon 97204

RECEIVED
 MAY 23 1981

Water Quality Division
 Dept. of Environmental Quality

Dear Sir:

The March 13, 1981 memorandum's Agenda item E, page A-12, has the Summary of Relevant Questions and Answers. The first sentence answer of the first question reads: Standards for groundwater quality are not being proposed at this time and will not likely be for a number of years.

This answer seemed peculiar when it was first read. Public Law 95-217 was amended on December 12, 1977. Its section 12 calls for confining pollution so as to not cause migration of pollutants to cause water or other environmental pollution.

Yet, the EPA's pamphlet of October 1980 shows that land application of sewage sludge "... involves minimum waste water treatment before application." So, this reasons that the domestic sludges which go to the groundwater, and should include on-site septic systems, are satisfactory, at least to EPA.

Contrasting the above is the U.S. EPA's booklet, EPA 600/8-80-026, June 1980, remark/news" on page 21, lines 5 and 6: "... recent legislation, ^(which) ... has a goal of zero pollution discharge by 1985, ..." to reduce the hazardous potential of industrial discharges.

This should mean to have industrial pollutants confined prior to the land application of sewage sludge. Is it reasonable to require a third-stage treatment in the sewerage facility of plants being built now to be able to meet the zero industrial pollution discharge by 1985?

Is the DEQ aware that tertiary treatment was listed in all five treatment options submitted by the CH2M Hill, C9768, April 1977 study for the Eugene-Springfield area? Is the DEQ aware there is only a second-stage plant being built? Does it reason to be logical to require this plant to install the third-stage now to be able to meet the zero industrial pollutants discharge by 1985?

If EPA rules are followed on these existing requirements/goals, then it does reason that the answer given was and is inaccurate. These EPA guides do, however, indicate their being followed should obviate making more rules for a number of years." And, an EPA sponsored spokesman in Portland, about one month ago, said that this lower Willamette Valley does not need ^{domestic} sewers, that meeting was tape recorded. The new data on the 1978-1979 local study shows he is correct.

Sincerely, John C. Neely, Jr. - 1600 Horn Lane - Eugene, Ore. 97404

LCOG Lane Council of Governments

NORTH PLAZA LEVEL PSB / 125 EIGHTH AVENUE EAST / EUGENE, OREGON 97401 / TELEPHONE (503) 687-4289

April 8, 1981

Environmental Quality Commission
 c/o Mr. Bill Young, Director
 Oregon Department of Environmental Quality
 P.O. Box 1760
 Portland, OR 97207

RE: Proposed Additions to OAR Chap. 340-Div. 41

On behalf of the Lane Council of Governments 208 Areawide Advisory Committee and the L-COG Board of Directors, we would like to bring to your attention the following points relative to the proposed new policy section (the complete L-COG submittal is attached) as follows:

1. Both the L-COG Board and the 208 AAC suggested the inclusion in this policy of the adoption of a series of statements of findings and definitions to help clarify the policy. These definitions included critical terminologies such as "urban density", "best available technology", "local", "regional", and "ancient" ground-water systems, and listings of beneficial uses, major pollutant sources control methods, and current problem areas.

The L-COG 208 Program and the L-COG Board continue to support these clarifications even though they do not appear in the revised policy material.

2. In regards to paragraph 2, the AAC and L-COG Board suggested changing the force of the policy by substituting the words "shall identify" in place of "should attempt to identify sensitive aquifers" to strengthen the efficacy of the policy. In addition, L-COG feels that the policy should put the Department in the position of defining criteria for evaluating sensitive aquifers rather than merely indicating that such areas may occur "where shallow aquifer underlay industrial sites, etc." Also, it was felt that the identification of only "planning" actions might preclude other more direct, remedial actions in some instances. These changes are not incorporated in the proposed policy.
3. In regards to paragraph 3, it was felt that the policy as proposed ignored the need to identify, in cooperation with the Oregon Water Resources Department, areas where quality and quantity are related - that is, where the needed recharge is of poor quality or where excessive withdrawal may affect quality. These points have been addressed only indirectly in paragraph 12.

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Water Quality Division
 Dept. of Environmental Quality

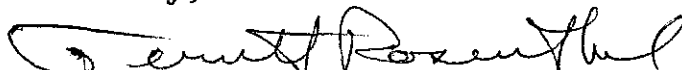
Environmental Quality Commission
April 8, 1981
Page Two

4. In regards to paragraph 5, the L-COG Board and AAC recognize significant changes that help clarify the relationship between the groundwater plan and the comprehensive plan. Additionally, we would suggest in 5 (d) that the words "comprehensive planning process" be used instead of just "comprehensive plan", thus indicating some flexibility in terms local planning adoption format. It may, for reasons of implementation and detail, not be practical to include a full groundwater plan in the "Comprehensive Plan" although it may be referenced as a key element.
5. L-COG is pleased to see that changes were made in paragraphs 7 and 8 to help clarify roles and responsibilities.
6. Several L-COG recommendations were made to include consideration of non-point sources and spills in the planning and regulation requirements. Although the proposed rule now generally addresses the issue of these sources in paragraph 11, it would still be desirable to tie spill prevention or hazardous waste handling to existing and specific permit processes as described under paragraphs 9 & 10.

This, then is a summary of the comments previously submitted by L-COG and are alterations which we, on behalf of the L-COG Board and 208 AAC would still strongly recommend. As noted, a complete policy document with suggested revisions have been submitted to department staff.

We would, nonetheless, like to emphasize that the L-COG 208 Program and L-COG Board feel the policy before you is a significant positive step in the direction of statewide aquifer protection and would recommend it be adopted, preferably with, the suggested changes.

Sincerely,


Gerritt Rosenthal
for the 208 Staff

GR:db/C

ATTACHMENT 2-10 EQC Young Sawyer Luca
LCOG Lane Council of Governments

NORTH PLAZA LEVEL PSB / 125 EIGHTH AVENUE EAST / EUGENE, OREGON 97401 / TELEPHONE (503) 687-4283

June 15, 1981

Mr. Joe Richards, Director
Environmental Quality Commission
c/o D.E.Q.
P.O. Box 1760
Portland, Oregon 97207

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JUN 25 1981

Dear Mr. Richards:

RE: Issues at Public Hearing on June 30, 1981

Water Quality Division
Dept. of Environmental Quality

The L-COG 208 Areawide Advisory Committee, in addition to its considerations on, and L-COG Board recommendations pertinent to the proposed Groundwater Policy, has also reviewed the proposed Amendment to OAR 340-41-006 in regards to the definition of Non-Point Sources.

The definition, as proposed, is a good start but the AAC had concerns that it left some types of wastes vaguely categorized and was not sufficiently complete so as to be transferable beyond groundwater situations.

The 208 AAC would recommend the following amendments to the proposed definition: (*italics are additions*)

(17) "Nonpoint Sources" means discharges into waters of the state from diffuse waste sources, or discharges from particular sources that do not have discrete, confinable or and discernable conveyances. *Nonpoint Sources are often* associated with rainfall events and/or various land and product management activities.

The AAC felt that it was desirable to set up two conditions for Non-Point designation, that is, the type of event (rainfall/land management) and its method of discharge (diffuse or specific without conveyance). The worry was that some very particular sources do not have discrete conveyances (e.g. industrial non-process wastes) while some diffuse sources may have conveyances (individual oil dumps in storm drains).

The AAC felt that a revised definition would be more generally applicable and result in less confusion.

Respectfully submitted,

Laurie Power

Laurie Power, Chairperson
208 AAC

LP:GR:db/F2

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JUN 25 1981

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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Water Quality Division
Dept. of Environmental Quality

OFFICE OF THE DIRECTOR

Monsanto

MONSANTO PLASTICS & RESINS CO.
855 Seneca Road
Eugene, Oregon 97402
Phone: (503) 342-7201

July 8, 1981

Mr. Ed Quan
Dept of Environmental Quality Commission
Water Quality Division
522 S.W. 5th Avenue
Portland, Oregon, 97297

Dear Mr. Quan:

We have reviewed the proposed additions to the Oregon Groundwater Quality Control Policy.

Our comments deal with program policy numbers 6 and 11.

Program Policy No. 6

This policy sets forth a technology based approach to the protection of groundwater. In essence, it would have required the implementation of best practicable treatment at all potential pollution sources. There is a large opportunity here to require a high-cost sophisticated technologies in areas where environmental improvement will not be demonstrated. A much better approach is contained in paragraph 7 which would set forth control standards commensurate with improvements needed to demonstrate improvement in beneficial uses of the water.

We recommend that paragraph 6 be deleted and paragraph 7 be set up as the mechanism for assuring protection of the groundwaters.

Program Policy No. 11

This paragraph could potentially impact upon the sales and use practices of agricultural chemicals in the state of Oregon. In discussing this with people involved, we have found that the phrase "best management practices" has no significance with respect to agricultural chemicals.

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EVALUATION OF TESTIMONY

The sections below focus on the comments received (both oral and written) as they relate to the proposed definition for nonpoint sources and the proposed General Groundwater Quality Protection Policy. Although many comments were submitted by some citizens over the past six months for improving the content of the background report, "Groundwater Quality Protection--Background Discussion and Proposed Policy," these comments are not evaluated here. The Department, however, appreciates these thoughtful suggestions and will incorporate them in the future update of the background report.

A. NONPOINT SOURCE DEFINITION1. Testimony

Two respondents recommended changes to the Department's proposed definition for "Nonpoint Sources." The Department's initial effort in defining "Nonpoint Sources" proposed for addition to OAR 340-41-006 reads as follows:

- (17) "Nonpoint Sources" means discharges into the waters of the state from diffuse waste sources that do not have discrete, confinable, and discernible conveyances. These sources are often associated with rainfall events and various land and product management activities.

The respondents' recommendations for revising the proposed definition are as follows:

a. R. C. Newcomb--letter of March 11, 1981

- (17) "Nonpoint Sources" means materials or their derivatives that can enter the water resources and degrade the quality of the water owing to the materials' capability for migrating from diverse or wide spread distribution to reach the water resources through natural or artificial processes and modes of movement.

Mr. Newcomb considered the Department's proposed definition to be inadequate, and he recommended the one above as a better start.

b. Lane Council of Governments (L-COG) 208 Areawide Advisory Committee--letter of June 15, 1981.

- (17) "Nonpoint Sources" means discharges into waters of the state from diffuse waste sources, or discharges from particular sources that do not have discrete, confinable or and discernible conveyances. Nonpoint Sources are often associated with rainfall events and/or various land and product management activities.

The L-COG 208 Areawide Advisory Committee (AAC) expressed concern that the Department's proposed definition left some types of wastes vaguely categorized and was not sufficiently complete so as to be transferable beyond groundwater situations. Thus, they considered it desirable to include two conditions in the definition as shown below:

- (i) Type of event (rainfall/land management)
- (ii) Method of discharge (diffuse or specific without conveyance).

Their concern was that some sources do not have discrete conveyances (e.g. industrial nonprocess wastes) while some diffuse sources may have conveyances (e.g. individual oil dumps in storm drains).

2 Evaluations

In attempting to define nonpoint sources, the Department focused on the entry of waste products from diffuse sources to waters of the state which include both surface and underground waters. Over the past 40 years, the Department and its predecessor agency have concentrated their efforts on point source discharges resulting from municipal and industrial treated effluents. Although OAR 340-41-006 does not include a definition for "point sources", the common usage of this term generally is understood to be a discharge issuing from the end of a pipe or other discrete conveyance.

Mr. Newcomb's proposed definition for nonpoint sources broadly covers the definitions for wastes and pollution and it concisely defines the entry of such wastes to public waters. Definitions for the terms pollution, wastes, public waters and waters of the state are presented below:

Definitions

OAR 340-41-006 Definitions applicable to all basins unless context requires otherwise:

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(9) "Pollution" means such contamination or other alteration of the physical, chemical, or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt, or odor of the waters, or such radioactive or other substance into any waters of the state which either by itself or in connection with any other substance present, will or can reasonably be expected to create a public nuisance or render such waters harmful, detrimental, or injurious to public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life, or the habitat thereof.

(10) "Public water" means the same as "waters of the state."

(13) "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive, or other substances which will or may cause pollution or tend to cause pollution of any water of the state.

(14) "Waters of the state" including 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.

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The revisions to the proposed definition recommended by L-COG 208 AAC attempt to provide a more precise definition for nonpoint sources by relating it to two conditions: (1) type of event (rainfall/land management) and (2) method of discharge (diffuse or specific without conveyance).

Wastes resulting from nonpoint sources are often thought of as being associated with rainfall events, especially in the Willamette Valley and coastal basins where snowfall is limited. In the Eastern and Southern Oregon basins, however, the snowmelt runoff is undoubtedly a significant cause of nonpoint source waste entry to waterways, in addition to the land runoff created by occasional intense rainfall events over short periods. Waste may also spread over a wide area and enter surface waters or it may percolate through porous soil, eventually reaching groundwater, during dry periods. Thus, nonpoint sources of waste may be conveyed to public waters by the overland movement of water resulting from precipitation or they may, from sheer volume and other factors, enter bodies of water without assistance from precipitation.

One of the characteristics of nonpoint sources of waste is their diffuse nature, making it impossible or extremely difficult in many instances to collect and treat these sources of waste such as is practiced for sewage and industrial wastes. Furthermore, the areas of origin for nonpoint sources of waste often vary according to the intensity and duration of rainfall or rapidity of snowmelt, making it difficult to predict, except generally, from where and when these diffuse sources will emanate. Another distinguishing feature of nonpoint sources is that the development and implementation of control strategies over nonpoint sources are primarily administered by other state, federal, and local governmental agencies rather than by DEQ. Consequently, waste discharge permits as required by Oregon Revised Statutes (ORS) 468.740 and by EPA regulations pursuant to Public Law 92-500 for the treatment and disposal of sewage and industrial wastes, are not required for the regulation of nonpoint sources. Instead, the activities that cause nonpoint sources of pollution are better controlled through management practices developed specifically for a particular activity, e.g. Forest Practices Act developed for logging and forest management.

3. Recommendations

In view of the above discussion, the Department proposes the following definition for nonpoint sources to be added to OAR 340-41-006:

- (17) "Nonpoint Sources" refers to diffuse or unconfined sources of pollution where wastes can either enter into-or be conveyed by the movement of water to-public waters.

ELQ:1
TL399 (1)
7/30/81

B. General Comments1. Testimony

- a. Both the L-COG Board and the 208 AAC suggested adding to this policy a series of statements of findings and definitions to help clarify the policy. These definitions include critical terminologies such as "urban density," "best available technology," "local," "regional," and "ancient" groundwater systems, and listing of beneficial uses, major pollutant sources control methods, and current problem areas. The L-COG 208 Program and the L-COG Board continue to support these clarifications even though they do not appear in the revised policy material.
- b. In the Administrative Rules that are proposed under 340-41-029, it appears that the introductory statement of the policy is declared to direct all state agencies. The Water Resources Department is concerned that this could be in conflict with their statutory direction where they are required to adopt policies pertaining to the groundwater, and it could be in conflict at some time in the future with something the Department of Environmental Quality might adopt.

2. Response

- a. The Department does not believe it to be appropriate to propose definitions that do not appear in the Groundwater Quality Protection Policy.

Listings of beneficial uses of water for each of the 19-designated river basins are appended to the Statewide Water Quality Management Plan: Beneficial Uses, Policies, Standards, and Treatment Criteria for Oregon (OAR 340-41). Conceivably, if groundwater could be developed in sufficient quantities, it could serve the uses already listed. More realistically, however, groundwater is usually developed for supply purposes, serving individual households, municipalities, livestock, irrigation, and industries. The legislative Policy under ORS 537.525 of the Ground Water Act of 1955 states the following regarding beneficial uses of ground water:

537.525 Policy. The Legislative Assembly recognizes, declares and finds that the right to reasonable control of all water within this state from all sources of water supply belongs to the public, and that in order to insure the preservation of the public welfare, safety and health it is necessary that:

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(5) Adequate and safe supplies of ground water for human consumption be assured, while conserving maximum supplies thereof for agricultural, commercial, industrial, recreational and other beneficial uses.

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The major pollutant sources control methods and current groundwater quality problem areas are not listed in this proposed policy statement for the following reasons:

(1) Pollutant Sources Control Methods.

- (a) For the treatment of domestic and industrial wastes, the above referenced management plan currently provides design criteria for the treatment of such wastes.
- (b) For nonpoint sources of waste where management guidelines or other processes have been developed and implemented, they also are acknowledged in the above referenced administrative rules under the section of Policies and Guidelines Generally Applicable to All Basins.

(2) Current Problem Areas

The Department does not believe that the inclusion of current problem areas into a statement of policy is appropriate. The intent of the policy is to provide, especially for the DEQ staff, a sense of direction in groundwater quality protection by providing guidance in preventive and corrective actions.

A listing of current problems in the policy would render that portion of the policy to timed obsolescence as new problem areas arise and old ones are cleared up.

- b. The Attorney General's staff has advised the Department to replace the word shall in the opening statement of the policy with the following words: are intended to. Thus, the introductory statement is revised to read:

The following statements of policy are intended to guide federal agencies and state agencies, cities, counties, industries, citizens, and the Department of Environmental Quality staff in their efforts to protect the quality of groundwater:

ELQ:1
 TL403.B (1)
 7/30/81

C. Specific Comments Relating to Proposed Planning Policies 1 through 5 are as follows:

1. Testimony

- a. The proposed planning policies of 1, 2, and 4, may duplicate or conflict with the charges given to the Water Resources Director under ORS 537.665.
- b. In regard to paragraph (Policy) 2, the AAC and L-COG Board suggested changing the force of the policy by substituting the words "shall identify" in place of "should attempt to identify sensitive aquifers" to strengthen the efficacy of the policy. In addition, L-COG feels that the policy should put the Department in the position of defining criteria for evaluating sensitive aquifers rather than merely indicating that such areas may occur "where shallow aquifer underlay industrial sites, etc." Also, it was felt that the identification of only "planning" actions might preclude other more direct, remedial actions in some instances. These changes are not incorporated in the proposed policy.
- c. Mr. Wheeler recommends that language in the proposed planning policy number 3 be modified, because he does not believe shallow aquifers can be adequately protected from potential contaminants and that no reasonable testing program will assure such groundwater is safe for consumption without being adequately treated.
- d. In regard to paragraph (Policy) 3, it was felt that the policy as proposed ignored the need to identify, in cooperation with the Oregon Water Resources Department, areas where quality and quantity are related - that is, where the needed recharge is of poor quality or where excessive withdrawal may affect quality. These points have been addressed only indirectly in paragraph 12.
- e. In the proposed planning Policy 5, it is unclear as to what kind of a groundwater protection plan is being addressed, what would be the authority for it, and what if it would conflict with a Water Resources Department order under ORS 537.753. This issue is raised because Water Resources Department has a recent letter opinion from the Attorney General (see letter attached) indicating that when Klamath Falls proposed an ordinance with the intent to protect groundwater quantity and quality, such an ordinance is preempted by State Statutes. This responsibility rests with the Water Resources Department and with the Water Policy Review Board as specified in ORS 536.210(1).

In subsection "D" of this policy statement the type of groundwater protection plan should be clarified.

- f. In regard to paragraph (Policy) 5, the L-COG and AAC recognize significant changes that help clarify the relationship between the groundwater plan and the comprehensive plan. Additionally, we would suggest in 5(d) that the words "comprehensive planning process" be used instead of just "comprehensive plan", thus indicating some flexibility in terms local planning adoption format. It may, for reasons of implementation and detail, not be practical to include a full groundwater plan in the "Comprehensive Plan" although it may be referenced as a key element.

2. Response

The proposed planning policies, 1-5, are presented below for convenient reference:

PLANNING POLICIES

- (1) [A.] It is the policy of the EQC that impairment of the natural quality of groundwater by pollution from man's activities be prevented or controlled within practicable limits to protect presently recognized beneficial uses and assure protection of the resource for beneficial use by future generation.
- (2) [H.] The Department should attempt to identify sensitive aquifers (areas where shallow aquifers underlay industrial sites, urbanizable areas, developing or planned rural residential concentrations, etc.), and assure that appropriate studies and planning actions are undertaken to protect groundwater quality.
- (3) [I.] In order to assure maximum reasonable protection of public health, the public should be [made aware] informed that groundwater--and most particularly local flow systems or shallow groundwater--should not be assumed to be safe for domestic use unless quality testing demonstrates a safe supply. Domestic water drawn from shallow aquifers should be tested frequently to assure its continued safety for use.
- (4) [J.] The Department [should seek the] will assist[ance] and[cooperation of] cooperate with the Water Resources Department to identify and characterize aquifers . [and] The Department will seek the assistance and cooperation of the Water Resources Department to design an ambient monitoring program adequate to determine long-term quality trends for significant groundwater flow systems. The Department will also seek the advice, assistance, and cooperation of local, state, and federal agencies to identify and resolve groundwater quality problems.

(5) [G.] The EQC recognizes that orderly financing and implementation of a long-range groundwater improvement and protection plan may necessitate some increased quality degradation for a short period of time. The EQC may approve [an overall] a groundwater protection plan which allows limited short-term further degradation provided:

(a) [1.] Beneficial use impairment will not be significantly increased

(b) [2.] Public health risk is not significantly increased,

(c) [3.] Irreparable damage to the groundwater resource does not occur.

(d) [4.] The [comprehensive] groundwater protection plan has been duly adopted as part of the comprehensive plan by the responsible local government,

(e) [5.] A financing plan has been developed and adopted to assure implementation, and

(f) [6.] The responsible local government has committee to implement the program in accordance with a timetable which is included in a stipulated or other joint agreement with the EQC.

a. ORS 537.665 of the Ground Water Act of 1955, administered by the Water Resources Department, reads as follows:

537.665 Investigation of ground water reservoirs; defining characteristics and assigning names and numbers. The Water Resources Director or his authorized assistant shall proceed as rapidly as possible to identify and define tentatively the location, extent, depth and other characteristics of each ground water reservoir in this state, and shall assign to each a distinctive name or number or both as a means of identification. The director or his authorized assistant may make such investigation and gather such data and information as may be essential to a proper understanding of the characteristics of each ground water reservoir and the relative rights to appropriate ground water therefrom. Before any final determination of boundaries and depth of any ground water reservoir, the director shall proceed to make a final determination of the rights to appropriate the ground water of the ground water reservoir under ORS 537.670 to 537.695. [1955 c,708]4]

b. The Department agrees that planning policies 1 and 2 should be revised for clarity as shown below:

Policy No. 1

- (1) It is the policy of the EQC that within its responsibilities for the regulation and control of waste sources, such activities be conducted in a manner so as to minimize the impairment of the natural quality of groundwater within practicable limits to protect presently recognized beneficial uses and assure protection of the resource for beneficial use by future generations.

Policy No. 2

- (2) For the purpose of making the best use of limited staff resources, the Department will concentrate its control strategy development and implementation efforts in areas where waste disposal practices and activities regulated by the Department have the greatest potential for degrading groundwater quality. These areas will be delineated from a statewide map outlining the boundaries of major water table aquifers prepared in 1980 by Sweet, Edwards & Associates Inc. This map may be revised periodically by the Water Resources Department.

Policy No. 3

Under the proposed planning Policy No. 3, a respondent recommended that shallow water table aquifers developed for drinking water should be treated because they cannot be properly protected from potential contaminants and no reasonable testing program can assure its safety on a continuous basis. The Department recognized that water quality in such aquifers is vulnerable to degradation. However, State Law (ORS 537.545) currently exempts individual homeowners, among others, from obtaining permits or certificates for developing groundwater in amounts not exceeding 15,000 gallons per day for domestic purposes, so one does not know where such wells are located.

The Department also recognizes that it is impractical for individual homeowners to maintain and operate their own treatment system.

Another area of concern expressed by a respondent, is the omission of the need to identify, in cooperation with Water Resources Department, areas where quality and quantity are related—that is, where the needed recharge is of poor quality or where excessive withdrawal may affect quality. The Water Resources Department has complete jurisdiction in areas where excessive withdrawal of groundwater may affect groundwater quality, e.g., saltwater encroachment into freshwater aquifer from overdrafting of freshwater. In the revised language of Planning Policy 4, which follows, the Department offers its assistance and cooperation to the Water Resources Department in their studies which may identify such areas.

In view of the above discussion, the Department does not propose to revise Planning Policy No. 3.

Policy No. 4

The Department agrees that revisions to Planning Policy No. 4 are in order as follows:

- (4) The Department will seek the assistance and cooperation of the Water Resources Department to design an ambient monitoring program adequate to determine long-term quality trends for significant groundwater flow systems. The Department will assist and cooperate with the Water Resources Department in their groundwater studies. The Department will also seek the advice, assistance, and cooperation of local, state, and federal agencies to identify and resolve groundwater quality problems.

Policy No. 5

The Department agrees that clarifications are needed in Planning Policy No. 5. The revised policy should read:

- (5) The EQC recognizes that orderly financing and implementation of a long-range groundwater quality improvement and protection plan may necessitate some increased quality degradation for a short period of time. The EQC may approve a groundwater quality protection plan which allows limited short-term further degradation provided:
 - (a) Beneficial use impairment will not be significantly increased
 - (b) Public health risk is not significantly increased,
 - (c) Irreparable damage to the quality of groundwater resource does not occur
 - (d) The groundwater quality protection plan has been duly adopted as part of the comprehensive planning processing by the responsible local government,
 - (e) A financing plan has been developed and adopted to assure implementation, and
 - (f) The responsible local government has committed to implement the program in accordance with a timetable which is included in a written agreement with the EQC.

ELQ:l
TL403.C
July 30, 1981

D. Specific Comments Relating to Proposed Program Policies 6 Through 12 are as follows:

1. Testimony

- a. Program Policy No. 6 sets forth a technology based approach to the protection of groundwater. In essence, it would have required the implementation of best practicable treatment at all potential pollution sources. There is a large opportunity here to require a high-cost sophisticated technologies in areas where environmental improvement will not be demonstrated. A much better approach is contained in paragraph 7 which would set forth control standards commensurate with improvements needed to demonstrate improvement in beneficial uses of the water.

Thus, Mr. Kennar, Monsanto Co., recommends that paragraph 6 be deleted and paragraph 7 be set up as the mechanism for assuring protection of the groundwaters.

- b. The language in the proposed Program Policy No. 7 could be construed as authority by DEQ to determine who is able to appropriate and use groundwater and what its best use is in the future; clearly an area within the primary jurisdiction and business of the Water Resources Department. Mr. Wheeler recommends that the currently proposed reference to sole source aquifer be replaced by reference to critical groundwater area because if Oregon assumed primacy for the Federal Safe Drinking Water Act and the DEQ administered the program, it could be construed as acquiescing the state's present authority to allocate and to determine the future beneficial uses of groundwater.
- c. L-COG is pleased to see that changes were made in paragraphs (proposed policies) 7 and 8 to help clarify roles and responsibilities.
- d. The language referring to monitoring and reporting requirements in subsections a, b, and c, of Program Policy No. 9 are unclear. For example, at the PGE Boardman coal plant, the Water Resources Department has issued requirements for a monitoring system to insure that leachates resulting from the ash disposal area does not contaminate groundwater quality. The Energy Facilities Siting Council site certificate also gives this responsibility to the Water Resources Department. This issue is raised to determine if the apparent duplication of effort by Water Resources Department and DEQ is intended.
- e. Program Policy No. 11 could potentially impact upon the sales and use practices of agricultural chemicals in the State of Oregon. In discussing this with people involved, we have found that the phrase "best management practices" has no significance with respect to agricultural chemicals.

Mr. Kennar recommends that chemical application and handling be done in compliance with label instructions, not appropriate state-of-the-art management practices "best management practices."

It may be appropriate to separate chemical application and handling from paragraph 11 into a separate paragraph and require that land applications of chemicals be done in accordance with label instructions.

- f. Several L-COG recommendations were made previously to include consideration of nonpoint sources and spills in the planning and regulation requirements. Although the proposed rule now generally addresses the issue of these sources in paragraph (Policy) 11, it would still be desirable to tie spill prevention or hazardous waste handling to existing and specific permit processes as described under paragraphs (Policies) 9 and 10.
- g. The Water Resources Department appreciates the opportunity to talk with you and that there have been some modification and amendments that sought to address the concerns that I (Mr. Wheeler) have raised here. We are not sure that these revisions have, in all cases, reached that point though. And Policy 12, while it is a change, might not really insure that needed direction.

2. Response

The proposed Program Policies 6-12, are presented below for convenient reference:

PROGRAM POLICIES

- (6) [B.] Consistent with general policies for protection of surface water, highest and best practicable treatment and control of sewage, industrial wastes, and landfill leachates, shall be required so as to minimize potential pollutant loading to groundwater. Among other factors, energy, economics, public health protection, potential value of the groundwater resource to present and future generations, and time required for recovery of quality after elimination of pollutant loadings may be considered in arriving at a case-by-case determination of highest and best practicable treatment and control. For areas where urban density development is planned or is occurring and where rapidly draining soils overlay local groundwater flow systems and their associated shallow aquifers, the collection, treatment and disposal of sewage, industrial wastes and leachates from landfills will be deemed highest and best practicable treatment and control unless otherwise approved by the EQC pursuant to [C.] (7) or [D.] (8) below.

- (7) [C.] Controls more stringent than those identified in paragraph [B] 6. above may be required [if] to the extent demonstrated necessary by DEQ to assure protection of beneficial uses. Designation of a sole source aquifer pursuant to the [f] Federal Safe Drinking Water Act will be recognized as one possible situation necessitating [mechanism for] establishment of more stringent controls.
- (8) [D.] Less stringent controls than those identified in paragraph [B.] 6. above may be approved by the EQC for a specific area if a request, including technical studies [show] showing that lesser controls will adequately protect beneficial uses [.] is made by representatives of the area and if the request is consistent with other state laws and regulations.
- (9) [E.] Disposal of wastes onto or into the ground in a manner which allows potential movement to groundwater shall be authorized and regulated by [either a] the existing rules of the Department's Water Pollution Control Facility (WPCF) Permit, [a] Solid Waste Disposal Facility Permit, or [an] On-site (Subsurface) Sewage Disposal System Construction Permit, whichever is appropriate.
- (a) [1.] WPCF permits shall specify appropriate groundwater protection requirements and monitoring and reporting requirements. Such permits shall be used in all cases other than for those covered by Solid Waste Disposal Facility Permit or On-site (subsurface) sewage disposal permits.
- (b) [2.] Solid Waste Disposal Facility Permits shall be used for landfills and sludge disposal not covered by NPDES or WPCF permits. Such permits shall specify appropriate groundwater protection requirements and monitoring and reporting requirements.
- (c) [3.] On-site Sewage Disposal System Construction permits shall be issued in accordance with adopted rules. It is recognized that existing rules may not be adequate in all cases to protect groundwater quality. Therefore, as deficiencies are documented, the Department shall propose rule amendments to correct the deficiencies.
- (10) [F.] Where groundwater quality is being degraded by waste disposal practices, the Department will require individual sources to improve or modify waste treatment and disposal practices as necessary to reduce the pollutant loading to groundwater. Such requirements will be implemented by permit condition or repair order as appropriate. For areas where an areawide approach is essential (rather than

an individual approach), the Department will seek cooperation of the responsible local government to develop and implement a groundwater protection plan to abate the problem. A stipulated or other joint agreement should be used in such cases to delineate the planned correction program and timetable. The Department will resort to more formal pollution abatement actions such as abatement orders, civil penalties, etc., only if voluntary compliance efforts within a specified time frame are not successful.

(11) In order to minimize groundwater quality degradation potentially resulting from nonpoint sources, it is the policy of the EQC that activities associated with land and animal management, chemical application and handling, and spills be conducted using the appropriate state of the art management practices ("Best Management Practices").

(12) The EQC recognizes and supports the authority and responsibilities of the Water Resources Department and Water Policy Review Board in the management of groundwater and protection of groundwater quality. In particular, existing programs to regulate well construction and to control the withdrawal of groundwater provide important quality protective opportunities. These policies are intended to complement and not duplicate the programs of the Water Resources Department.

Policy No. 6

The goal of Program Policy No. 6 is to protect rather than to improve groundwater quality, using the existing technology available as the base to treat the waste sources currently regulated by the Department to provide that protection. Thus, the intent of this policy is to prevent as much contaminants as practicably possible, which are associated with sewage and industrial wastes, and landfill leachates, from degrading groundwater quality.

Policies No. 7 and 8

Program Policy No. 7 provides a mechanism for requiring more stringent controls over waste sources overlying sensitive aquifers, providing that DEQ demonstrates such controls are warranted. Similarly, Program Policy No. 8 provides a process for allowing less controls over waste sources treatment if area representatives can demonstrate through technical studies that the lesser controls will not affect the beneficial uses of the groundwater due to contamination of quality.

Because of the concern expressed by the Water Resources Department in referencing Sole Source Aquifer in Policy No. 7, an explanation of this Act's provisions is needed. One provision of the Safe Drinking Water Act of 1974 is known as the Gonzalez Amendment, or Sole Source Aquifer provision. In essence, it can prevent the use of federal assistance for purposes which could endanger irreplaceable drinking water supplies. It applies where EPA determines that an area has an aquifer which is its sole or principal drinking water source. EPA can make this determination either on its own initiative or upon receiving a petition from a community. If EPA finds that contamination of such an aquifer will cause a significant health hazard, it may delay or stop commitment of federal assistance for any projects or activities that could cause such contamination. (EPA Groundwater Protection, 1980).

Based on the above, the Department proposes to keep in the Policy the reference to critical groundwater areas. For clarity, Policy No. 7 is proposed as follows:

- (7) Establishment of controls more stringent than those identified in paragraph 6 above may be required by the EQC in situations where: (1) DEQ demonstrates such controls are needed to assure protection of beneficial uses; (2) the Water Resources Director declares a critical groundwater area for reasons of quality; and (3) EPA designates a sole source aquifer pursuant to the Federal Safe Drinking Water Act.

The Attorney General's staff advised the Department to revise Policy No. 8, so that it reads as follows:

- (8) Less stringent controls than those identified in paragraph 6 above may be approved by the EQC for a specific area if a request, including technical studies showing that lesser controls will adequately protect beneficial uses is made by representatives of the area and if the request and procedures are consistent with other state laws and regulations.

Policy No. 9

The groundwater monitoring requirements in Policy No. 9 as it relates specifically to thermal power plant site certificate holders, are outlined in OAR 26-060(5). These rules are administered by the Department of Energy and require approvals from both the Water Resources Department and DEQ, as shown below:

OAR 26-060 Environmental and Effluent Monitoring. The site certificate holder shall initiate and maintain environmental and effluent monitoring of the sites, thermal power plants, and associated facilities.

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(5) Groundwater Monitoring. A groundwater monitoring program shall be established in selected locations near and on the site to determine whether groundwater quality is being adversely affected by the thermal power plan or associated facilities. The detailed plan for this monitoring shall be submitted to the State Engineer and the Department of Environmental Quality for concurrence.

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In order to clarify the monitoring and reporting requirements in subsections (a) and (b) of Policy No. 9, the Department proposes to add the word quality between the words "groundwater protection" in the final policy draft.

Policy No. 10

The Attorney General's staff advised the Department to amend some of the language in Program Policy No. 10 so that it reads as follows:

- (10) Where a groundwater quality is being degraded by waste disposal practices, the Department will require individual sources to improve or modify waste treatment and disposal practices as necessary to reduce the pollutant loading to groundwater. Such requirements will be implemented by permit condition or repair order as appropriate. For areas where an areawide approach is essential (rather than an individual approach), the Department will seek cooperation of the responsible local government to develop and implement a groundwater quality protection plan to abate the problem. A written agreement should be used in such cases to delineate the planned correction program and timetable. The Department will resort to more formal pollution abatement actions such as abatement orders and civil penalties only if voluntary compliance efforts within a specific time frame are not successful.

Policy No. 11

The state-of-the-art management practices ("Best Management Practices"), as it relates to chemicals, include more than the label instructions on application and handling of the chemical that the applicator should follow. Best management practices also include using the appropriate practices in the mixing of chemical the cleaning of equipment, and the disposing of containers so that water quality is not contaminated. This is the intent of Policy Statement 11.

The Department's experience over the years with regard to the overall management of chemicals has shown that the clean-up of equipment and the disposal of containers, often containing varying volumes of residual chemicals, cause most of the water quality problems.

The Department proposes to make a minor revision to Policy 11 so that it reads as follows:

- (11) In order to minimize groundwater quality degradation potentially resulting from nonpoint sources, it is the policy of the EQC that activities associated with land and animal management, chemical application and handling, and spill prevention be conducted using the appropriate state of the art management practices ("Best Management Practices").

Policy No. 12

Program Policy 12 emphasizes that the preceding statements of policy are aimed at preventing and controlling groundwater pollution that may result from point and nonpoint sources of waste.

This policy also recognizes the authority and responsibilities of both the Water Resources Department and the Water Policy Review Board in their management of groundwater and protection of groundwater quality. Thus, in order to clarify the complementary role of these proposed statements of policy to those programs administered by the Water Resources Department, the DEQ has revised the language in most of the preceding proposed policies to avoid misunderstanding of intent.

ELQ:1
TL403.D (1)
7/30/81

WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: Ed Quan

Date: July 15, 1981

From: Chris L. Wheeler

Subject: Klamath Falls Ordinance on regulation of ground water

As requested, enclosed are copies of:

My letter of 6-12-81 requesting opinion
Opinion of Attorney General dated 6-17-81

Ordinance of City of Klamath Falls

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

R E Q U E S T E D

JUL 16 1981

WATER QUALITY CONTROL

DAVE FROHNMAYER
ATTORNEY GENERAL



STANTON F. LONG
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

GENERAL COUNSEL
100 State Office Building
Salem, Oregon 97310
Telephone: (503) 378-4620

June 17, 1981

Chris L. Wheeler
Deputy Director
Water Resources Department
555 13th Street, N. E.
Salem, Oregon 97310

Re: Klamath Falls Ordinance Purporting to Regulate Geothermal
Ground Water

Dear Mr. Wheeler:

You state that the City of Klamath Falls is proposing to enact an ordinance regulating the use of geothermal ground water. (Copy enclosed). You ask if the proposed ordinance conflicts with or is preempted by state law.

An examination of the state statutes reveals that the subject of the use of ground water has been preempted by the State of Oregon. In ORS 536.220(1)(a) the Legislative Assembly declared the State's policy in recognizing that the maintenance of the economic and general welfare of the people and the future growth and development of this state are dependent upon a proper utilization and control of the water resources. Paragraph (b) of that statute provides that a proper utilization and control of the water resources can be achieved only through a coordinated integrated state water resources policy through plans and programs for the development of such water resources and through other activities designed to encourage, promote and secure the maximum beneficial use and control of such water resources, all carried out by a single state agency. ORS 536.300 charges the Water Policy Review Board of the Water Resources Department with the duty to carry out the legislative policy.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

JUL 16 1981

WATER QUALITY CONTROL

Chris L. Wheeler
June 17, 1981
Page Two

Under ORS 537.110 which originally appeared in the 1909 Water Code, it is provided that:

"All water within the state from all sources of water supply belongs to the public." (Emphasis added).

Under the 1955 Ground Water Act, a similar legislative policy appears in ORS 537.525, wherein the legislature recognized that the right to control of all water within the state from all sources of supply belongs to the public and that the use, development and control of such waters was to be regulated in accordance with the legislative policy set forth in that statute. ORS 537.535 provides that no person or public agency shall use any ground water, construct any well or other means of developing ground water, or operate or permit the operation of any well controlled by such person or agency except upon compliance with the Ground Water Act and the rules and regulations of the State Water Resources Director.

ORS 537.615 provides that any person or public agency intending to acquire a new right to appropriate ground water or to enlarge an existing right shall apply to the State Water Resources Director for a permit, and that the application for the permit shall contain the information enumerated in that statute. Specifically, ORS 537.135 provides for a permit to use surface water to recharge a ground water source.

These statutes make it very clear that the legislature has declared that the use, regulation and control of all water within the state is placed in one state agency, State Water Resources Department.

The proposed Klamath Falls ordinance speaks of regulating geothermal water. We must then determine if geothermal water falls within the definition of ground water, thereby subject to the regulations by the State Water Resources Department, or whether the regulation, if any, falls under the jurisdiction of the Department of Geology and Mineral Industries.

ORS 522.005(6) defines a "geothermal well" as including any excavation made for producing "geothermal resources" and any geothermal reinjection well. "Geothermal resources" is defined in that statute under subsection (7) as the natural heat of the earth in whatever form below the surface of the earth which may be extracted from the naturally heated fluids, brines, hot water, gases and steam.

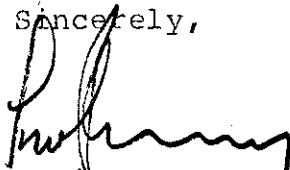
Chris L. Wheeler
June 17, 1981
Page Three

The legislature also states the public policy concerning geothermal resources, where it provided in ORS 522.015 that the people in this state have a direct and primary interest in the development of geothermal resources and that the Department of Geology and Mineral Industries shall control the drilling and deepening of wells for the discovery and production of geothermal resources. ORS 522.019 contains provisions regulating the reinjection of fluids derived from geothermal resources.

ORS 522.025 is the governing statute involved in your question. That statute provides that the provisions of ORS Chapter 522 relating to the location and drilling of any well for the production of geothermal resources do not apply to wells drilled to a depth no greater than 2,000 feet where the geothermal fluids produced are of less than 250 degrees Fahrenheit bottom hole temperature, or such fluids have been appropriated pursuant to the 1955 Ground Water Act, ORS 537.505 to 537.795.

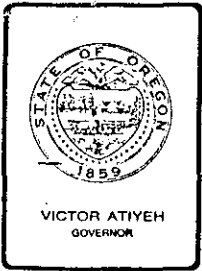
Thus, the statutes make it clear that the State has preempted the field with regard to the application and use of geothermal fluids. If the well is over 2,000 feet and the bottom hole temperature more than 250 degrees Fahrenheit, the regulation is by Geology and Mineral Industries. If the fluids in the well are below 250 degrees Fahrenheit, then such is subject to regulation by the State Water Resources Department. It would, therefore, appear that if the proposed ordinance is enacted by the City of Klamath Falls, it would be in conflict with the state statutes which have preempted the field.

Sincerely,



Louis S. Bonney
Assistant Attorney General
and Counsel

mc
enclosure



Water Resources Department

MILL CREEK OFFICE PARK

555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-2983

June 12, 1981

Mr. Louis S. Bonney
 Assistant Attorney General
 Department of Justice
 100 State Office Building
 Salem, Oregon

Dear Mr. Bonney:

Enclosed is a copy of a proposed ordinance by the City of Klamath Falls relating to regulation of ground water when utilized for heating purposes.

There are several statutes providing for such regulation, but I call attention to only a couple. In the Surface Water Code, ORS 537.120 reads as follows:

"Subject to existing rights, and except as otherwise provided in ORS chapter 538, all waters within the state may be appropriated for beneficial use, as provided in the Water Rights Act and not otherwise; ..."

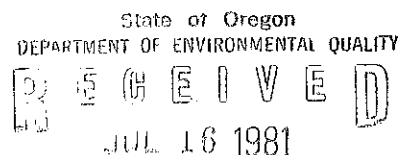
The Ground Water Code is the primary law with the policies enunciated in ORS 537.525. The provisions for future use are provided in ORS 537.535, and the exempted purposes in ORS 537.545.

Would you please advise whether or not in your opinion such an ordinance is in conflict with state law or preempted by it.

Sincerely,

Chris L. Wheeler
 Deputy Director

CLW:eh
 Enclosure



WATER QUALITY CONTROL

State of Oregon
DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
RECEIVED
JUL 10 1981
WATER RESOURCES DEPT
SALEM, OREGON
WATER QUALITY CONTROL

ORDINANCE NO. _____

AN ORDINANCE PROVIDING FOR GEOTHERMAL RESOURCE DEVELOPMENT, LIMITING REMOVAL OF GEOTHERMAL OR GROUNDWATER FROM ITS SOURCE, PROVIDING PROTECTION FOR THE RIGHTS OF EXISTING USERS, AND PROVIDING FOR CONSERVATION AND MANAGEMENT OF THE GEOTHERMAL GROUNDWATER RESERVOIR WITHIN THE CITY OF KLAMATH FALLS, OREGON.

THE CITY OF KLAMATH FALLS ORDAINS AS FOLLOWS:

Section 1.

It shall be unlawful for any person, corporation, organization, municipal corporation or any political subdivision of the State of Oregon to put into service any device, pump, well system or artesian source which will result in any geothermal water or fluid being removed from any well unless the water or fluid is returned undiminished in volume to the same well.

Section 2.

Notwithstanding Section 1 hereof, all persons who on January 1, 1981, are removing water or geothermal fluids from wells and who on said date are using said geothermal water or fluid for heating purposes shall be allowed to continue such use in the same manner which they presently enjoy. However, existing users will not be allowed to increase, enlarge or otherwise expand the quantity of geothermal water or fluid withdrawn unless it is in compliance with Section 1 of this Ordinance.

Section 3.

The Common Council of the City of Klamath Falls shall expeditiously enact legislative measures to ensure compliance with the provisions of this Ordinance. However, failure of the Common Council to act in a timely manner shall not invalidate any of the provisions of this Ordinance.

Section 4.

The following definitions apply in this Ordinance:

GEOTHERMAL WATER - Water of sufficient temperature and volume for use in any system used for heating purposes.

HEATING PURPOSES - Includes the use of geothermal fluids for residential, commercial and industrial beneficial purposes.

WELL - any excavation, cavern, hold or shaft or other breaking of the surface of the ground which results in the accumulation of geothermal fluid therein or a flow therefrom whether assisted by any mechanical device.

Passed by the Citizens of the City of Klamath Falls, Oregon, this _____ day of _____, 1981.

Presented to the Mayor and by him approved and signed this _____ day of _____, 1981.

Mayor

ATTEST:

City Recorder

STATE OF OREGON)
COUNTY OF KLAMATH) ss.
CITY OF KLAMATH FALLS)

I, Harold Derrah, Recorder for the City of Klamath Falls, Oregon, do hereby certify that the above and foregoing is a true and correct copy of an Ordinance duly adopted by the Citizens of the City of Klamath Falls, on the _____ day of _____ 1981, and thereafter approved and signed by the Mayor and attested by the City Recorder.

City Recorder

PROPOSED ADDITIONS TO OAR CHAPTER 340
DIVISION 41
STATEWIDE WATER QUALITY MANAGEMENT PLAN

I. Amend OAR 340-41-006 to add a new definition as follows:

Definitions

340-41-006 Definitions applicable to all basins unless context requires otherwise:

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- (17) "Nonpoint Sources" refers to diffuse or unconfined sources of pollution where wastes can either enter into or be conveyed by the movement of water to public waters.

II. Add a new Section of Policy as follows:

340-41-029

GENERAL GROUNDWATER QUALITY PROTECTION POLICY

The following statements of policy are intended to guide federal agencies and state agencies, cities, counties, industries, citizens, and the Department of Environmental Quality staff in their efforts to protect the quality of groundwater:

PLANNING POLICIES

- (1) It is the policy of the EQC that within its responsibilities for the regulation and control of waste sources, such activities be conducted in a manner so as to minimize the impairment of the natural quality of groundwater within practicable limits to protect presently recognized beneficial uses and assure protection of the resource for beneficial use by future generations.
- (2) For the purpose of making the best use of limited staff resources, the Department will concentrate its control strategy development and implementation efforts in areas where waste disposal practices and activities regulated by the Department have the greatest potential for degrading groundwater quality. These areas will be delineated from a statewide map outlining the boundaries of major water table aquifers prepared in 1980 by Sweet, Edwards & Associates Inc. This map may be revised periodically by the Water Resources Department.
- (3) In order to assure maximum reasonable protection of public health, the public should be informed that groundwater--and most particularly local flow systems or shallow groundwaters--should not be assumed to be safe for domestic use unless quality testing demonstrates a safe supply. Domestic water drawn from shallow aquifers should be tested frequently to assure its continued safety for use.

- (4) The Department will seek the assistance and cooperation of the Water Resources Department to design an ambient monitoring program adequate to determine long-term quality trends for significant groundwater flow systems. The Department will assist and cooperate with the Water Resources Department in their groundwater studies. The Department will also seek the advice, assistance, and cooperation of local, state, and federal agencies to identify and resolve groundwater quality problems.
- (5) The EQC recognizes that orderly financing and implementation of a long-range groundwater improvement and quality protection plan may necessitate some increased quality degradation for a short period of time. The EQC may approve a groundwater quality protection plan which allows limited short-term further degradation provided:
 - (a) Beneficial use impairment will not be significantly increased,
 - (b) Public health risk is not significantly increased,
 - (c) Irreparable damage to the groundwater resource does not occur,
 - (d) The groundwater quality protection plan has been duly adopted as part of the comprehensive planning processing by the responsible local government,
 - (e) A financing plan has been developed and adopted to assure implementation, and
 - (f) The responsible local government has committed to implement the program in accordance with a timetable which is included in a written agreement with the EQC.

PROGRAM POLICIES

- (6) Consistent with general policies for protection of surface water, highest and best practicable treatment and control of sewage, industrial wastes, and landfill leachates, shall be required so as to minimize potential pollutant loading to groundwater. Among other factors, energy, economics, public health protection, potential value of the groundwater resource to present and future generations, and time required for recovery of quality after elimination of pollutant loadings may be considered in arriving at a case-by-case determination of highest and best practicable treatment and control. For areas where urban density development is planned or is occurring and where rapidly draining soils overlay local groundwater flow systems and their associated shallow aquifers, the collection, treatment and disposal of sewage, industrial wastes and leachates from landfills will be deemed highest and best practicable treatment and control unless otherwise approved by the EQC pursuant to (7) or (8) below.

- (7) Establishment of controls more stringent than those identified in paragraph 6 above may be required by the EQC in situations where:
 - (1) DEQ demonstrates such controls are needed to assure protection of beneficial uses; (2) the Water Resources Director declares a critical groundwater area for reasons of quality; and (3) EPA designates a sole source aquifer pursuant to the the Federal Safe Drinking Water Act.
- (8) Less stringent controls than those identified in paragraph 6 above may be approved by the EQC for a specific area if a request, including technical studies showing that lesser controls will adequately protect beneficial uses is made by representatives of the area and if the request is consistent with other state laws and regulations.
- (9) Disposal of wastes onto or into the ground in a manner which allows potential movement to groundwater shall be authorized and regulated by the existing rules of the Department's Water Pollution Control Facility (WPCF) Permit, Solid Waste Disposal Facility Permit, or On-site (Subsurface) Sewage Disposal System Construction Permit, whichever is appropriate.
 - (a) WPCF permits shall specify appropriate groundwater quality protection requirements and monitoring and reporting requirements. Such permits shall be used in all cases other than for those covered by Solid Waste Disposal Facility Permit or On-site (subsurface) sewage disposal permits.
 - (b) Solid Waste Disposal Facility Permits shall be used for landfills and sludge disposal not covered by NPDES or WPCF permits. Such permits shall specify appropriate groundwater quality protection requirements and monitoring and reporting requirements.
 - (c) On-site Sewage Disposal System Construction permits shall be issued in accordance with adopted rules. It is recognized that existing rules may not be adequate in all cases to protect groundwater quality. Therefore, as deficiencies are documented, the Department shall propose rule amendments to correct the deficiencies.
- (10) Where groundwater quality is being degraded by waste disposal practices, the Department will require individual sources to improve or modify waste treatment and disposal practices as necessary to reduce the pollutant loading to groundwater. Such requirements will be implemented by permit condition or repair order as appropriate. For areas where an areawide approach is essential (rather than an individual approach), the Department will seek cooperation of the responsible local government to develop and implement a groundwater quality protection plan to abate the problem. A written agreement should be used in such cases to delineate the planned correction. A written agreement should be used in such cases to delineate the

planned correction program and timetable. The Department will resort to more formal pollution abatement actions such as abatement orders and civil penalties only if voluntary compliance efforts within a specified time frame are not successful.

- (11) In order to minimize groundwater quality degradation potentially resulting from nonpoint sources, it is the policy of the EQC that activities associated with land and animal management, chemical application and handling, and spill prevention be conducted using the appropriate state of the art management practices ("Best Management Practices").
- (12) The EQC recognizes and supports the authority and responsibilities of the Water Resources Department and Water Policy Review Board in the management of groundwater and protection of groundwater quality. In particular, existing programs to regulate well construction and to control the withdrawal of groundwater provide important quality protective opportunities. These policies are intended to complement and not duplicate the programs of the Water Resources Department.

ELQ:1
WL609 (1)
8/6/81

Before the Environmental Quality Commission
of the State of Oregon

In the Matter of Amendment)	
of existing definitions in rule	)	Land Use
OAR 340-41-006 and adoption of)	
a new rule OAR 340-41-029	)	Consistency Statement
establishing Groundwater Quality)	
Protection Policy)	

The proposed policy set forth in the above-cited rule appears to be consistent with statewide planning goals.

The proposed policy relates primarily to goals 5, 6, 10, and 11.

With regard to goal 5 (Natural Resources) the purpose of the proposed policy is to establish general guidance for the protection of the quality of the groundwater resource by preventing and controlling pollution from waste disposal activities.

With respect to goal 6 (Air, Water and Land Resources Quality), the proposed policy will provide general guidance in the planning process to assure protection of groundwater quality.

With respect to goal 10 (Housing), the proposed policy can lead to limitations in some areas of the state on the density of housing development using on-site sewage disposal so as to control pollutant loading to groundwater.

With respect to goal 11 (Public Facilities), the proposed policy may necessitate construction of sewers to accommodate planned densities and protect groundwater.

TL338.B (1)

Before the Environmental Quality Commission
of the State of Oregon

In the Matter of Amendment	)	Statutory Authority,
of existing definitions in rule	)	Statement of Need,
OAR 340-41-006 and adoption of	)	Principal Documents
a new rule OAR 340-41-029	)	Relied Upon and State-
establishing Groundwater Quality	)	ment of Fiscal Impact
Protection Policy)	

1. Citation of Statutory Authority:

ORS 468.020 authorizes the Environmental Quality Commission to adopt rules necessary to carry out its responsibilities. ORS 468.710 sets forth State policy for control and prevention of pollution of waters of the State. ORS 468.700(8) defines waters of the State to include groundwater.

2. Need for the Rule:

The Commission and Department are increasingly becoming involved in case-by-case correction of groundwater pollution problems. Historically, efforts have concentrated on pollution control in surface waters. General policy guidance is needed to assure general uniformity in the approaches used to prevent and abate groundwater pollution.

3. Documents Relied Upon:

Report entitled "Groundwater Quality Protection, Background Discussion and Proposed Policy", prepared by the Oregon Department of Environmental Quality, April 1980 (revised August 1980). This document is available for public inspection at the office of the Department of Environmental Quality, Water Quality Division, 522 S.W. Fifth Avenue, Portland, Oregon, during regular business hours, 8 a.m. to 5 p.m., Monday through Friday.

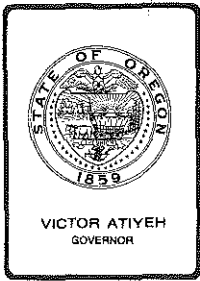
4. Fiscal Impact:

The proposed policy seeks to initiate conscious efforts to prevent groundwater pollution and protect beneficial uses such as drinking water. Such pollution is extremely costly to correct. Thus, the long-range fiscal impact to the public and state and local governments should be to reduce regulatory and abatement costs. Groundwater pollution preventive efforts can necessitate modification of plans for development or use of land and thus impose some cost burden on the owner of the land.

If the policy is not adopted, increased costs to abate groundwater pollution are expected.

Dated May 13, 1981

TL338.A (1)



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. S, August 28, 1981, EQC Meeting

208 Nonpoint Source Project--Proposed Additions
to Statewide Water Quality Management Plan

Background

Since its inception in 1976, the 208 Nonpoint Source Program has been brought before the Commission on several occasions. This includes status reports, approval of planning projects for addition to the Statewide Water Quality Management Plan, and recertification of various plans. Two actions taken by the commission which provide important background information are as follows:

1. In November 1978, the commission approved several 208 planning elements for inclusion in the Statewide Water Quality Management Plan as Volume V - Nonpoint Source Narrative Summary, Volume VI - Nonpoint Source Action Program, and Volume VII - Public Involvement Summary.
2. In August 1979, the Commission approved modifications to Volume VI to reflect amended and completed planning elements.

At the August 1979 meeting, the Commission was advised that new 208 projects would soon be started and that, on completion, pertinent parts of completed projects would be brought to the Commission for approval.

Discussion

Since August 1979, several new projects have been initiated. Three projects are now complete, including a statewide framework plan for managing agricultural nonpoint sources of waste, a plan to treat and control waste sources in the Tillamook Drainage with emphasis on animal wastes, and a plan to control nonpoint pollution sources in the lower Malheur and Owyhee Drainages.

A brief synopsis is presented below for each project.

Tillamook Drainage Preliminary monitoring by the U.S. Food and Drug Administration and the Department's ambient monitoring program, suggested potential pollution problems in the Tillamook Drainage sufficient to threaten the shellfish industry in the bay. In 1979, the Department initiated an intensive sampling program. It was subsequently determined that fecal bacteria pollution was prevalent in the five major rivers and the bay, particularly during and after heavy storms. The primary sources were identified as animal waste from dairy cows, and in some cases, effluent from individual waste disposal facilities. Sewage treatment plants were determined to constitute a problem only when they malfunctioned.

A plan was developed to treat and otherwise control waste sources, with emphasis on practices designed to reduce animal waste runoff to adjacent streams. An implementation program was developed to be implemented locally by the Tillamook Soil and Water Conservation District with technical and financial assistance from the U.S. Department of Agriculture. A \$2,011,000 federal Rural Clean Water Program grant has been allocated to the area for financial assistance in implementing practices to protect water quality.

Agricultural Framework Plan In 1979, the Soil and Water Conservation Commission (SWCC) was designated by the Governor as the statewide management agency to control agricultural nonpoint source water pollution on private agricultural lands. A plan was developed to carry out this mandate. Briefly, the plan emphasizes programs in critical water quality problem areas. Programs will be oriented toward the local level with conservation districts designated the local management agencies. Site specific conservation practices will be developed and implemented by farmers with technical assistance from the U.S. Department of Agriculture. The DEQ staff role will be to determine the water quality problems areas, review and approve conservation practices and implementation programs, give technical assistance, and provide regulatory backup.

Malheur-Owyhee Drainage A Department assessment of water quality indicated serious potential problems in the lower reaches of the Malheur and Owyhee Drainages. A project was sponsored by Malheur County to identify pollution sources and impacts and to develop solutions. A two-year monitoring program was carried out. Pollution problems were identified including nutrients, fecal coliform bacteria and sediment. Primary contributing sources include irrigation tailwaters, animal waste from feedlots, fertilizers, and excessive streambank erosion. Detailed conservation practices were specified from Soil Conservation Service technical manuals. A voluntary implementation program was developed to be administered by the Malheur County Court through the Malheur Soil and Water Conservation District.

Project summaries are presented in Attachment 1.

Proposed Additions to Statewide Water Quality Management Plan

The Department proposes to add three new exhibits to Volume VI - Nonpoint Source Action Program. These exhibits are taken directly from pertinent project reports and cover the essential elements of each completed plan. The exhibits are referenced below and are presented in Attachment 2, Exhibits.

Exhibit S This exhibit presents the treatment and control practices to protect water quality in the Tillamook Drainage. It is taken from the following reports:

1. "Tillamook Bay Drainage Basin Agricultural Nonpoint Source Pollution Abatement Plan," Tillamook County SWCD and Tillamook Bay Water Quality Committee, January 1981.
2. "Tillamook Bay Drainage Basin, Fecal Waste Management Plan," Department of Environmental Quality and Tillamook Water Quality Committee, June 1981.

Exhibit T This exhibit presents the Agricultural Framework Plan and is the report entitled; "Statewide Agricultural Framework Plan for Water Quality Management in Oregon," Soil and Water Conservation Commission, May 1981 .

Exhibit U This exhibit presents conservation practices to protect water quality in the Malheur-Owyhee Basins and an implementation program. The exhibit is taken from the report entitled "Malheur County Water Quality Management Plan," Malheur County, July 1981.

Summation

1. The Commission approved nonpoint source pollution control elements to the Statewide Water Quality Management Plan in November 1978 and August 1979.
2. New nonpoint source control plans have now been completed.
3. A substantial public involvement program was undertaken as a part of each plan.
4. The Exhibits S, T, U, are additions to the Volume VI - Nonpoint Source Action Program.
5. The Commission must approve the plan prior to submittal to EPA.
6. The Department requests that the proposed additions to Volume VI be approved.

EQC Agenda Item No. S
August 28, 1981
Page 4

Director's Recommendation

Based on the Summation, it is recommended that the Commission:

1. Approve Exhibits S, T, U, as additions to Volume VI of the Statewide Water Quality Management Plan.
2. Authorize the Director to transmit Exhibits S, T, U, to EPA for approval.



William H. Young

Attachments: 2

1. Staff Summary - New 208 Plan Elements
2. Statewide Water Quality Management Plan - Exhibits

Thomas J. Lucas:1
TL412 (1)
229-5284
August 5, 1981

STAFF SUMMARY - NEW 208 PLAN ELEMENTS

I. Fecal Waste Management Plan--Tillamook Drainage

A. Introduction

The purposes of the fecal waste management plan for the Tillamook drainage are to (1) identify fecal pollution sources in Tillamook Bay and its watershed, (2) identify corrective actions needed to alleviate the pollution problems, (3) identify implementation mechanisms that will perform the corrective actions and (4) obtain commitments from the affected parties to implement the plan.

The Tillamook Bay drainage basin is located on the northern Oregon Coast in Tillamook County approximately 48 miles south of the Columbia River mouth and 60 miles west of Portland. The watershed is 550 square miles (363,520 acres). It is bounded on the east by the crest of the Coast Mountain Range and to the west by the Pacific Ocean. Five major river subbasins drain 97 percent of the total land area into Tillamook Bay. Four of these rivers, the Tillamook, Trask, Wilson and the Kilchis, create an alluvial plain located near the southeast corner of the estuary at Miami Cove through a narrow alluvial plain.

The Fecal Waste Management Plan is drawn from several project reports prepared during the past two years. These reports, presented below, form the basis for the staff summary.

1. "Tillamook Bay Drainage Basin Agricultural Nonpoint Source Pollution Abatement Plan," Tillamook County SWCD and Tillamook Bay Water Quality Committee, January 1981.
2. "Tillamook Bay Drainage Basin, Fecal Waste Management Plan," Department of Environmental Quality and Tillamook Water Quality Committee, June 1981.
3. "Tillamook Bay Bacteria Study, Background Data Review Report," Department of Environmental Quality, February 1981.
4. Tillamook Bay Bacteria Study, Source Summary Report, Department of Environmental Quality, June 1981.

B. Water Quality Problems

The Department completed a generalized assessment of water quality problems in 1978 and preliminarily identified serious pollution problems in the Tillamook drainage, particularly fecal bacteria. This analysis was largely based on earlier work by the U.S. Food and Drug Administration and the DEQ ambient stream monitoring program.

The Department carried out an intensive stream monitoring program to determine the extent and impact of fecal bacteria pollution, both in the bay and in the five major rivers. The findings were as follows:

1. During periods of heavy rains, the bay waters exceeded shellfish growing water standards.
2. Fecal bacteria standards were exceeded during heavy rains in the Wilson, Trask, Kilchis, Miami and Tillamook Rivers.
3. The Tillamook River exceeded the fecal bacteria standard during both wet and dry periods.
4. The primary fecal waste source was identified as improperly managed animal waste, i.e., cow manure.
5. Subsurface sewage was identified as a fecal bacteria source in the basin.
6. During the one-year monitoring period, domestic and private sewage treatment plants met NPDES permit conditions for fecal bacteria discharge. The sewage treatment plants are considered a potential fecal bacteria source to the bay only when they malfunction.

C. Solutions/Best Management Practices

Treatment and control solutions for the identified fecal waste sources are presented as follows:

1. Animal Wastes
 - a. Best management practices were developed and adopted locally to reduce the impact on water quality from barnyards and field application of manure.
 - b. Best management practices were developed to restrict animal access to streams and to establish setbacks from streams when applying manure.
2. Subsurface Sewage
 - a. Known and potential problem areas were prioritized, based on potential to pollute Tillamook Bay.
 - b. The Tillamook County Health Department agreed to concentrate efforts on a priority basis as time and resources permit. The DEQ staff and Oregon State Health Division, within available resources, will assist the County staff in the high priority areas.

3. Sewage Treatment Plants

- a. Municipalities and industrial sources agreed to alarm critical pieces of equipment for loss of chlorinating capability.
- b. Municipalities and industrial sources agreed to participate in a bay closing notification procedure. The DEQ will be notified when a malfunction occurs which allows untreated or partially treated effluent to be discharged. The Oregon State Health Division will then decide if the bay should be closed to shellfish harvesting.

D. Implementation

The implementation of the plan for sewage treatment plants and subsurface sewage will rely on existing authorities and responsibilities. Implementation of the animal waste element of the plan will require establishment of a local management agency.

1. Sewage Treatment Plants

The Department, under existing enforcement and regulatory authority will be directly responsible for overseeing implementation of this portion of the plan. Each municipality and industrial waste source with a permitted sewage effluent discharge, will be designated the local management entity.

2. Subsurface Sewage

The Department, operating under current On-site Sewage Disposal Rules, will be responsible for overseeing implementation of this portion of the plan. The Tillamook County Health Department will be the local management agency.

3. Animal Waste

The State Soil and Water Conservation Commission will be the state management agency responsible for overseeing this portion of the plan. The Tillamook Soil and Water Conservation District will be the local management agency and will have direct implementation responsibility. The Department, as lead agency for water quality in Oregon, will hold ultimate responsibility for plan implementation.

Plan implementation will be handled on a voluntary basis by Tillamook SWCD. If individual farmers do not implement best management practices on a voluntary basis, and are causing water quality problems, the Department will exercise its authority to protect water quality as set forth in the plan. This type of action is unlikely and will only take place if the Tillamook SWCD cannot secure voluntary cooperation.

E. Public Involvement

Drafts of the Fecal Waste Management Plan were reviewed on several occasions by the statewide Policy Advisory Committee (PAC). The PAC approved the plan at its June 1981 meeting. A local Citizens Advisory Committee participated directly in plan formulation and reviewed progress on a monthly basis. This body, the Tillamook Bay Water Quality Committee, approved the final plan in June 1981.

F. Future Actions

A grant in the amount of \$2,011,000 has been allocated to the Agricultural Stabilization and Conservation Service local office. This grant is to be used to aid in implementing agricultural best management practices. Practices as outlined in the animal waste section of the plan will be eligible for grant monies. Local dairy farmers in the Tillamook Bay Drainage Basin may apply for grant funds. The grant funds will be allocated in the areas with the most critical water quality problems.

Because of the critical water quality problems, the DEQ staff, through the Department's ambient water quality monitoring program, will be monitoring the basin carefully for water quality improvements. The Soil Conservation Service and other technical agencies will provide considerable assistance in implementing site specific best management practices.

II. Statewide Agricultural Framework Plan for Water Quality Management in Oregon

A. Introduction

This plan describes how the state will, through the Soil and Water Conservation Commission, coordinate the development and implementation of local and state agriculture nonpoint source pollution control programs to protect vital land and water resources. The Statewide Framework is based upon programs where program elements addressing problem identification, conservation practices (Best Management Practices), information and education and implementation are developed and implemented locally.

The Soil and Water Conservation Commission will utilize this framework plan, its procedures, policies and management structures, to successfully plan and implement a statewide agricultural nonpoint source water quality management program.

The scope of this framework plan is limited to privately-owned agricultural lands in the State of Oregon. It is directed specifically at those agricultural management activities which impact water quality through nonpoint source pollution.

The program is based upon blending currently available federal, state and local programs into a coordinated effort to achieve water quality protection goals through installation of appropriate state-of-the-art conservation practices. The intended purpose of this approach is to obtain maximum effectiveness in ongoing programs and then to determine where and what kind of new or expanded effort is needed.

The program is a mixture of voluntary and regulatory efforts based on existing programs, laws and regulations. The voluntary effort is dependent upon adequate incentives and informed land owners/managers. This effort will require strong cost-share, technical assistance and information and education programs. Its implementation will require dedicated and intelligent leadership at the local level backed up by strong state direction and coordination. The need for new or strengthened voluntary programs will be a primary consideration of ongoing planning and assessment efforts.

Priorities will be established based on identifiable water quality problems and benefits.

The DEQ as the designated lead management agency for the State Oregon, is responsible for overall coordination of the state's nonpoint source water quality management plan. This includes coordinating the planning and implementation of urban runoff, agriculture, groundwater and other nonpoint source water pollution elements. The SWCC, as the statewide agricultural nonpoint source water quality management agency, is responsible for coordinating agriculture with other nonpoint source areas. The locally designated agricultural management agencies are responsible for coordinating all the parts of that local agriculture plan.

B. Program Policies

The key policies of this plan have been designed to increase the participation of land owners/managers and to improve the effectiveness of programs designed to improve water quality.

Policy No. 1: Agricultural programs for nonpoint source water quality

Policy No. 2: Agricultural programs will be voluntary for as long as this approach achieves satisfactory progress towards protecting water quality.

Policy No. 3: The voluntary programs will be continually monitored for effectiveness, and where it becomes necessary, regulatory responses will be developed and recommended for adoption by the appropriate local management agency based upon the locally approved criteria.

Policy No. 4: It will be the policy of the SWCC to identify the appropriate SWCD as the local planning and management agency unless otherwise required by local action.

Policy No. 5: Current regulatory programs which are being used to control the use of chemicals and other serious bacteriological contaminants will be continued and remain in effect.

Policy No. 6: Agricultural nonpoint source management program will be carried out at the local level. SWCDs, irrigation and drainage districts, ASC county committees and county governments each have an important role in local conservation efforts.

Policy No. 7: As additional policies are developed, they will be reviewed at the local level by SWCD boards and other interested and affected local groups. They will then be presented to the SWCC for possible adoption and then forwarded to DEQ for review and inclusion in the statewide framework plan.

Consultation and review at all levels will be carried out simultaneously so that all responsible units of government are aware of the progress in policy development and adoption.

C. Planning Program

The planning program has four components; problem assessment, problem prioritization, identification of best management practices and special planning studies. The approach of the planning program is to assess instream water quality and land quality problems, establish critical area priorities and identify the appropriate management practices to address the identified problems.

1. Assessment

Assessment of instream water quality will primarily be the responsibility of the Department of Environmental Quality. Water quality monitoring is currently carried out by a number of agencies for many different purposes and for several parameters. The DEQ compiles and evaluates available data for various waterways and stream segments and is responsible for preparation of a biennial report which identifies water quality problem areas and sources of water pollution. This instream water quality assessment will be correlated with known areas of possible agricultural nonpoint source runoff problems to determine relationships between water quality problem areas with areas of known high erosion, concentrated animal populations, heavy irrigation use and other potential sources of agricultural pollutants. Sources of information for this correlation will include Soil Conservation Service land inventory and monitoring; Resource Conservation Act assessments; 208 project reports; research data and reports; Soil and Water Conservation District Natural Resource

Conservation programs; annual reports; annual work plans; Irrigation District reports and other available sources of information.

2. Program Priorities

The future agricultural nonpoint source program direction will be based upon identified critical water quality problems and upon identified critical agricultural land or operation management programs within the state. The DEQ will have the responsibility to annually establish the state's critical agricultural land or operation management problem priorities on private agriculture lands. The DEQ and SWCC will then meet annually to integrate these two different but often related priority lists in order to establish the mutually agreed upon priorities toward which to direct both the planning and implementation components of the agriculture NPS plan.

Both the DEQ and SWCC will utilize in their priority setting procedure, the information generated by local 208 studies as well as local management agencies designated to implement agriculture NPS water quality plans. It will be the responsibility of SWCC to see that the local agriculture management agencies develop annual problem priority lists. The SWCC will then utilize these lists in the development of their statewide priorities. DEQ will utilize the water quality data and information developed in the 208 planning studies and that provided annually by the local management agencies when the statewide water quality priorities are established.

3. Best Management Practices

These practices are locally designed, selected and approved for use in specific areas to prevent or correct agricultural NPS water quality problems or specifically identified agricultural land and operation problems impacting water quality.

The Agricultural NPS Water Quality Management program is based upon the implementation of site specific management practices.

Once BMPs have been approved, it is the responsibility of DEQ to submit them to the Environmental Quality Commission (EQC) for adoption into the statewide Water Quality Management Plan (SWQMP). DEQ will prepare and submit a SWQMP recertification report item annually to the EQC containing any BMP changes.

4. Special Studies

A major purpose of this plan is to provide the overall agricultural NPS program direction and a framework into which completed special planning efforts can be integrated. Therefore, the framework plan is based upon accumulated

planning efforts which have been carried out or are underway. It will be continuously updated as new planning efforts which have significance to the plan are completed.

D. Implementation

Implementation of the statewide Agricultural Framework Plan depends on sound interagency cooperation and local management. The approach of the implementation program is to fully utilize existing and potential resources in a coordinated effort to achieve water quality protection goals and objectives. It will focus on installation of appropriate conservation practices in identified priority areas through a voluntary compliance program with local landowners/managers.

Implementation incorporates four major elements: existing agency programs, implementation agreements, available funding resources, and present water quality management implementation plans.

1. Agency Programs

Several agencies have programs which currently implement soil and water conservation practices on the land. Three principal agencies of the U.S. Department of Agriculture are the Soil Conservation Service (SCS), Agricultural Stabilization and Conservation Service (ASCS) and the Extension Service, which functions at all levels of government. Other USDA agencies with programs which directly affect conservation activities are the S.E.A. Agricultural Research and Farmers Home Administration.

2. Implementation Agreements

The Soil and Water Conservation Commission, as lead management agency for agricultural nonpoint source water quality management, will work with each agency which has conservation implementation responsibilities. Agreements will be negotiated for the purpose of developing a coordinated effort to achieve water quality goals by concentrating conservation activities in priority areas and on critical problems which will result in practical water quality benefits. As these agreements are adopted, they will become part of this framework plan.

3. Implementation Funding Options

The SWCC will examine the various options available for funding the management agency responsibilities, technical assistance needs and affected public responsibilities for installation of appropriate conservation practices in those specific problem areas identified through the problem assessment stage of this plan.

4. Existing Implementation Plans

In addition to the Special Studies described in the planning section, several implementation plans have been developed in the state, some of which are presently being implemented on a local basis. Plans now being implemented are listed below:

- a. Tillamook Bay Drainage Basin Site Specific Agricultural Pollution Abatement Plan
- b. North Central Oregon Wheat Growing Region BMP Implementation Project
- c. RVCOG 1981-83 208 Project--Agricultural BMP Implementation Project

III. Malheur County Water Quality Management Plan

A. Introduction

The purposes of the Malheur County Water Quality Management Plan are: (1) gather information on the present water quality of the surface waters, (2) identify water quality problems, (3) develop best management practices, (4) develop an implementation program, (5) provide sufficient information to reevaluate the established beneficial uses and water quality standards, and (6) involve the public in all phases of the program.

Malheur County is located in the southeastern corner of the State of Oregon. The County is bordered by the states of Idaho on the east and Nevada to the south. In Oregon, Baker and Grant Counties border Malheur County on the north and Harney County borders to the west.

There are two major river basins in the county, the Malheur River Basin and the Owyhee River Basin. Both are tributaries to the Snake River. The two basins combined contain 7,198,400 acres, or 11,247.5 square miles, and comprise approximately 11.7 percent of Oregon's total area. Malheur County itself comprises 10.3 percent of Oregon's total land area, or 6,316,800 acres.

This summary is taken from the following report prepared over the past three years: "Malheur County Water Quality Management Plan," Malheur County, July 1981.

B. Water Quality Problems

The Department completed a generalized assessment of water quality problems in 1978 and preliminarily identified several water quality problems including sedimentation and nuisance algae growths. A detailed two-year sampling program was carried out by Malheur County staff. Conclusions from this sampling program are presented below:

1. One of the major problems is sediment. During periods of high runoff, all stations sampled showed potential problems of excessive suspended solid levels. Streambank erosion is probably one of the major causes of high suspended solid levels. This may be aggravated in some areas by concentrations of livestock having access to waterways.
2. The other major problem is high levels of fecal coliform. Almost all of the stations sampled exceeded 1,000 colonies per 100 ml on at least one occasion, with the exception of several of the headwater areas. Since some of the headwaters areas have high levels, one of the sources is believed to be livestock and wildlife on the rangeland, but this has not been confirmed. Other causes may be the improper location of feedlots on or too close to waterways, or in areas that flood during periods of high runoff.
3. Nitrate levels seem to be a problem in some areas of the county. The major causes of high nitrate levels in the waterways are probably excessive loss of fertilizers and breakdown of animal wastes. Total phosphorus also seems to be a problem in some areas of the county. Since it is often the limiting factor in plant growth, elevated levels of phosphorus and phosphate contribute to the growth of weeds in drainage ditches and excessive algal growth in sections of the natural waterways.

C. Best Management Practices (BMPs)

Several conservation practices (best management practices) were developed to protect water quality. Although a large number of practices were identified, they can be grouped as follows:

1. Practices designed to minimize the impacts of irrigation return flows such as sprinkler irrigation or tailwater recovery.
2. Practices designed to conserve water, i.e., concrete lining or land leveling.
3. Practices designed to protect streambanks.
4. Practices designed to protect rangeland.

D. Implementation

The implementation of BMPs will consist of a voluntary program and a regulatory program. The voluntary program will attempt to make people aware of: (1) the water quality program; and (2) the purpose and benefits of applying BMPs to a specific piece of land. The regulatory program is a last resort effort to enforce BMP application where needed and where the landowners are unwilling to voluntarily resolve the water quality problems they are creating.

The underlying philosophy of the voluntary program is that a substantial majority of the landowners are already applying BMPs as the benefits and purposes of the water quality program become more widely known. However, the county also recognizes there will be some who may have a soil erosion problem or may be creating a water quality problem and are unwilling to take any corrective action. In these instances a regulatory program will be needed.

The following implementation techniques will be utilized to implement the program:

1. Voluntary

- a. The program shall be totally voluntary for five years after the adoption of the plan by the county court and approved at the state and federal levels.
- b. The voluntary program can be successful only if there is adequate financial and technical assistance available to the farmers to apply BMPs.
- c. The Malheur County Soil and Water Conservation District will assist landowners or groups of landowners with requests for technical and/or financial assistance. It will work closely with the technical, financial, and educational agencies to coordinate any or all programs that could be beneficial in applying BMPs to the land.

2. Regulatory

Any enforcement will take place five years after the adoption of the water quality management plan by the Malheur County Court.

- a. Investigatory and compliance schedules will be developed by the Malheur SWCD.
- b. Conservation plans will be developed with technical assistance from the Soil Conservation Service.
- c. If the plans are not carried out by individual farmers, they will be subject to civil penalties by the Malheur County Court.¹

¹ This does not preempt the Department authority under existing statutes to protect quality of the waters of the state. However, it does establish the procedure by which Malheur County and Malheur SWCD can develop and implement best management practices.

The Malheur County Court, composed of the county judge and two county commissioners, is responsible for all elements of the water quality plan. It will be their responsibility to ensure the successful implementation of the water quality plan. The court, however, is not in a position to implement all the work as outlined in the plan. Therefore, the court has designated the Malheur County Soil and Water Conservation District as the lead management agency to carry out the implementation of the plan. This designation does not mean that the Malheur County SWCD is the final decision maker. This responsibility belongs to the Malheur County Court. The court will review and monitor the performance of the SWCD to ensure the needs of the county are being met.

E. Public Involvement

Drafts of the Malheur County Water Quality Management Plan were reviewed on several occasions by the statewide Policy Advisory Committee. The PAC approved the Malheur County Citizens' Water Resources Committee, participated in plan formulation and reviewed program on a monthly basis.

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STATEWIDE WATER QUALITY MANAGEMENT PLAN EXHIBITS

(For addition to Volume VI)

STATUS OF SEWAGE TREATMENT PLANTS

Problems Impacting Water Quality

A sewage treatment plant (STP) and its collection system are designed to collect waste from homes, businesses, and industries, convey it to a central point for treatment, and then dispose of the treated waste in some sanitary manner. The collection system should convey the sewage without leaking out or letting surface or groundwater leak in. The sewage treatment plant should through various methods: (1) reduce nutrients and solids and (2) disinfect the effluent to kill harmful bacteria and viruses. The disposal of the treated waste is usually into a nearby river or bay within a defined mixing zone to allow mixing of the discharge with the receiving waters. Technical violation of water quality standards are generally allowed.

For a sewage treatment plant operating in a watershed where shellfish are grown there are additional suggested plant design and operating guidelines (EPA, 1974, Protection of Shellfish Waters, EPA 430/9-74-010) for operation. These guidelines are based on the fact that the STP collects sewage from a wide area of the watershed, concentrates it in one spot for treatment, and then discharges it into one location in a river or bay that might be near a shellfish growing area. If one or more steps of the collection, treatment, or disposal process malfunctions, a pollution problem with a severe impact on the shellfish growing area could occur.

Malfunctions of sewage treatment systems include: (1) high infiltration into the collection system, particularly during heavy precipitation causing hydraulic overloading of the STP which in turn could result in sewage bypassing or reduced treatment efficiency, and (2) equipment malfunctions within the STP causing sewage bypassing or reduced treatment efficiency. If sewage bypassing or reduced treatment efficiency occurs, organic matter, pathogenic bacteria and viruses, oils, greases and solids may be discharged to the river from somewhere in the collection system or at the STP outfall. The impacts of these discharges to the receiving waters in nearby shellfish growing areas depend on the dilution ratios of the receiving waters, direction of flow of the diluted sewage, downstream water uses, and the time the sewage takes to reach the shellfish growing areas.

Sewage Treatment Plant Problem Statement

In the Tillamook Bay Drainage Basin there are five sewage treatment plants -- City of Garibaldi, Bay City, Tillamook Creamery, Port of Tillamook, City of Tillamook. Each plant differs in treatment process, size, discharge point, and potential to impact water quality should malfunctions occur.

The Food and Drug Administration (FDA) identified the STPs in their reports of 1974, 1976 and 1977 as either polluting the Bay or having the potential to do so. In the 1977 report, the FDA specifically identified the types of failures as poor chlorination or high bacteria levels, hydraulic

overloading, and bypassing that would have the greatest threat to the shellfish growing waters. They cited, ". . . the lack of necessary monitoring equipment, plant attendance, alarms, auxiliary power, plant treatment capacity, holding capacity, and redundancy of unit operations" as the reasons that the plants cannot protect the shellfish waters.

The FDA also noted that when malfunctions occur, they may go undetected for many hours; thus, allowing the prospect of harvesting contaminated shellfish to occur. They also stated in the 1977 report affected parties (e.g. Oregon State Health Division, DEQ, Oyster Growers) were not notified when a malfunction was discovered.

The DEQ Tillamook Bay Bacteria Study field work completed in 1980, demonstrated that the STPs when operating properly, adequately treat sewage waste to protect the shellfish growing waters. No plants malfunctioned during the sampling runs. The discharges from STPs were sampled and found to be within specified discharge permit limits.

When the STPs are not operated properly, as was described in the FDA reports, they can create problems of considerable magnitude, especially if malfunctions go undetected. Therefore, the need to protect the shellfish growing waters from sewage treatment plant malfunctions is twofold: (1) the need for a reliable STP and, (2) when it does malfunction, the need to have a reliable procedure to notify affected parties of the malfunction. Shellfish harvesting should be prohibited during serious STP malfunctions.

Sewage Treatment Plant Problem Correction

DEQ Source Control Program in the Water Quality Division monitors the operation of STPs. The primary functions of the Program are: (1) reviewing facility operations and maintenance plans (2) drafting and issuing discharge permits, (3) inspecting sources, (4) enforcing pollutant dischargers when violations occur, (5) reviewing Federal programs and their effects on the State program.

The source or permit inspection function of the program currently consists of periodic contacts with each of the five STPs in the Tillamook Bay drainage to determine how the plant is operating at that time and to respond to inquiries from the STP operators. A major yearly inspection also occurs. This inspection consists of (1) reviews of the past years' plant performance including a review of the monthly sampling reports and a review of the malfunctions and how they were handled, (2) an evaluation of the quality control aspects of their water testing procedures and (3) a review of the plant's maintenance program to prevent and reduce frequency of breakdowns.

Since the first visit in 1974 by the FDA, the STPs have upgraded their operation and equipment. As the needs are identified and funds become available, the upgrading is accomplished. A good example of this is the City of Tillamook STP. It was the plant with the most serious problems identified in the 1977 FDA Study. (U.S. Dept. of Health, Education and

Welfare, 1978. Sanitary Survey of Shellfish Waters, Tillamook Bay, Oregon, November-December, 1977, Food and Drug Administration. Northeast Technical Services Unit, Davisville, Rhode Island.) The city has just recently built a new plant with federal construction grant funds.

It is through the Source Control Program that operations of the STP have been and will continue to be monitored.

Based on the results of the DEQ and FDA work, corrective actions will be made to address the two threats to the shellfish growing areas described in the problem statement of this plan. The STPs will install additional equipment necessary to improve reliability of the plant operation and to insure less frequent discharge of partially treated wastes. The STPs will also install alarm devices that will alert plant operators of a malfunction. The STPs will institute a plant malfunction notification procedure in conjunction with the alarms to notify the DEQ, Oregon State Health Department (OSHD) and the oyster growers of a potential health risk for partially treated waste discharges (Appendices 2-1 to 2-5). This notification procedure is only a part of the overall proposed bay closing-opening criteria being submitted to OSHD in an interagency report.

Through permit inspections, the DEQ will continue to monitor the operations and maintenance of each STP. Under the Plan presented here, the DEQ will make monthly contact with personnel for each STP to insure continuing plant preventative maintenance.

During the discussions in the development of this Plan, FDA suggested installation of residual chlorine analyzer recorders at each STP. It is the DEQ's policy to use as little chlorine as possible to meet the fecal coliform levels required in the National Discharge Elimination System (NPDES) permits and does not recommend operating with excessive amounts of chlorine to achieve the free chlorine level. The Department recognizes the need for adequately treated effluent in shellfish growing areas. But, at the same time the Department will not recommend equipment modifications to the STP's to achieve higher treatment levels until the Department is satisfied that the modification will work as desired. This also applies to FDA's recommendation for the residual chlorine analyzers. The DEQ will work with the City of Tillamook to install a residual chlorine analyzer using Federal Construction Grant funds. Once the equipment is installed, the DEQ will monitor its operation, maintenance, and cost effectiveness to monitor the residual chlorine levels in the effluent. If the equipment operates as designed, the chlorine feed rate to the effluent will be maintained to account for fluctuations in flow and suspended solids levels. At the end of one year after installation, if operation, maintenance and cost effectiveness of the equipment is satisfactory, the DEQ is prepared to recommend a similar equipment installation at the City of Garibaldi STP. This same equipment is not recommended for the Bay City STP or Port of Tillamook STP since the lagoon design dampens fluctuations in flow and suspended solids so as to eliminate the need for numerous adjustments of the chlorine feed rate that is common to a mechanical STP. The analyzer is not recommended for the Tillamook Creamery since the

sanitary facilities waste is a small portion of this industrial STP's wasteload.

During the one year test of the analyzer, the DEQ will also monitor the disinfection performance of the other STP's to see if the analyzer is necessary. The need for the analyzer at the other STP's and the successful operation of the analyzer at the city of Tillamook STP will initiate a recommendation for installation of additional analyzers.

As a result of the 1977 FDA report, the State of Oregon formed an interagency Shellfish Sanitation Task Force to review, as a part, the operating conditions of the STP's in the Tillamook Bay Drainage Basin. The following discussion will place in motion a number of the Task Force recommendations in the form of improvements to be undertaken by each sewage treatment plant.

Garibaldi Sewage Treatment Plant

The Garibaldi treatment plant is the activated sludge type with effluent polishing by sand filtration. It was constructed in 1973 to replace the original primary plant. The plant actually consists of two separate plants side by side which are capable of operating individually or in parallel. Four pump stations serve the city and two are currently equipped with high water alarms. The design dry weather flow is 0.5 MGD with 1.5 MGD hydraulic capacity for wet weather flow. Each of the sand filters is capable of filtering the design flow and each is capable of backwashing the other filter such that the filtration process is continuous. There are two chlorinators and multiple chlorine cylinders used, but the change over is manual. The plant is equipped with a liquid propane gas driven emergency generator which automatically supplies power for both the plant and pump stations.

The City of Garibaldi will participate in the notification program for protection of Tillamook Bay. Upon notification that the FDA finds the recommended program acceptable, the city will adopt the implementation statement pertaining to its STP.

City of Tillamook Sewage Treatment Plant

The plant was constructed in 1950 which provided primary treatment, single stage sludge digestion, liquid sludge drying beds, and disinfection. Additions were made to the plant in 1958, to increase treatment capacity. These additions included new raw sewage pumps, raw solids shredding, primary clarifier modifications, a trickling filter, and a primary digester. Modifications completed in 1969 included trickling filter recirculation, secondary clarification, and new disinfection facilities. The latest modifications to the treatment plant resulted in abandonment of the trickling filter process and replacement with a Rotating Biological Contactor (RBC) process. These modifications (completed in 1980) included a new standby raw sewage pump, new speed control units for the raw sewage pumps, installation of a new sewage shredder, installation of two gravity

screens, installation of four RBC shafts and two blowers for the air drive of the RBC's, two new 45 -- foot -- diameter secondary clarifiers, and a new operations building. The operations building include chlorine discharge and handling facilities, new laboratory and office, conference room, blower room, and shop.

In addition to the new secondary plant designed for 1.4 MGD dry weather flow, the elimination of most infiltration has greatly reduced the high flows during wet weather conditions. The two chlorinators are presently hooked up to a telephone alarm system. The alarm system also registers power loss at the plant and pump station failures.

The City of Tillamook will participate in the notification program for protection of Tillamook Bay. Upon notification that the FDA finds the recommended program acceptable, the city will adopt the implementation statement pertaining to its STP.

Bay City Sewage Treatment Plant

The Bay City treatment facility is a two cell waste stabilization lagoon system designed for 0.212 MGD dry weather flow. A dike on the west side of cell #2 has been built up to prevent any overspilling to the Bay. The present chlorinator is not alarmed. One pump station is equipped with both visual and audible alarms and a generator for auxiliary power.

The City of Bay City will participate in the notification program for the protection of Tillamook Bay. Upon notification that the FDA finds the recommended program acceptable, the city will adopt the implementation statement pertaining to its STP.

Tillamook County Creamery Sewage Treatment Plant

The creamery has an activated sludge system with 0.2 MGD dry weather flow. It has a 0.2 MGD aerated surge basin which when operated at a low level can contain raw waste for up to 24 hours during emergency conditions at the treatment plant. A general power outage would cut the power to the factory so no waste would be generated. A 20,000 gallon aerobic digester has been added for additional digester capacity. A new whey processing plant just completed will eliminate most spills that in the past have upset the treatment system. It also reduces the high temperature wash water that in the past was discharged with the plant effluent. The creamery system has an automatic switch over of the chlorine cylinders.

The creamery will participate in the notification program for the protection of Tillamook Bay. Upon notification that the FDA finds the recommended program acceptable, the creamery will adopt the implementation statement pertaining to its STP.

Port of Tillamook Sewage Treatment Plant

The Port of Tillamook treatment plant is a two cell waste stabilization

lagoon system. Chlorination is accomplished with one chlorinator. The excessive infiltration has been greatly reduced and additional reduction is being worked on.

The Port will participate in the notification program for the protection of Tillamook Bay. Upon notification that the FDA finds the recommended program acceptable, the Port will adopt the implementation statement pertaining to its STP.

Cost of Control and Funding Sources

The cost of correcting the sewage treatment plant problems identified in the Plan can be broken down as follows:

- (1) Cost for equipment installations.
- (2) Costs for implementation and use of the malfunction notification procedures.

Costs for Equipment Installations

The cost of automatic chlorine cylinder changeover devices range from \$250 to \$500. The cost is dependent upon the type of design used.

Costs for alarming critical pieces of equipment necessary to notify the operator of a malfunction, will vary according to the plant design. A number of factors will determine these costs.

- (1) The number of pieces of equipment to be alarmed.
- (2) The distance from the equipment to the alarm indicator.
- (3) The option of using an effluent shut-off device or an alarm indicator.

For those plants using an alarm indicator, the cost will be \$500 to \$1,500. Those STPs using an effluent shut-off device will have costs of less than \$500.

Installation of a chlorine residual analyzer is dependent upon the type, make and functions performed by the analyzer.

Costs of Implementation And Use of the Malfunction Notification Procedure

No additional costs will be incurred by the STPs or the DEQ in implementation and use of the Procedure.

The STPs are already required to notify the DEQ of a malfunction. The change created by adoption of this Plan is that they make notification

within one hour instead of notifying the Department through the monthly monitoring reports.

The DEQ has been and will continue to respond to STP malfunctions if the Department is notified when the breakdown occurs.

Funding

Funding sources for the addition of alarms and automatic chlorine cylinder changeover devices will be the STPs operating budget. The money for these budgets is provided through sewerage system user fees.

Federal Construction Grant funds will be used to purchase the residual chlorine analyzer for the City of Tillamook STP.

Sewage Treatment Plants
Implementation Statement

Purpose

This statement describes implementation of a plan to modify the operation of sewage treatment in the Tillamook Bay and its tributaries as necessary to insure discharge of adequately disinfected effluent. Adequately treated sewage is essential for the protection of the public who use these waters for water contact recreation and shellfishing. This is in accordance with the Clean Water Act, the goals of the National Shellfish Sanitation Program, and Oregon Administrative Rules pertinent to water pollution control.

The Plan calls for equipment modifications at each plant and the use of a Malfunction Notification Procedure. Equipment modification will occur commensurate with Food and Drug Administration concurrence (Appendix 2-6). The Malfunction Notification Procedure will be incorporated in each STP's NPDES Permit after acceptance of the Plan by all affected parties.

Each sewage treatment plant permittee and/or their representative will be designated the Local Management Entity to carry out the local responsibilities of this Plan. Commitment letters from each STP and/or their representative to carry out this Plan are included at the end of this Implementation Statement. Technical assistance to each permittee in carrying out the Plan will be provided by the DEQ, Water Quality Division, Source Control Section.

Authority

The Department of Environmental Quality statutory authority to issue permits, monitor and penalize sewage treatment plants for pollution is contained in the applicable sections of Chapter 468 of the Oregon Revised Statutes. Authority for DEQ activity specific to the requirements of this Plan for sewage treatment plants in the Tillamook Bay and its tributaries are contained in Oregon Administrative Rules 340-41-120 and 340-41-215.

Oregon Department of Environmental Quality Responsibilities

- Be the State Management Agency for implementation of the Sewage Treatment Plant Section of the Tillamook Bay Drainage Basin Fecal Waste Management Plan.
- Provide technical assistance to the STP permittee and/or their representative at their request.
- Continue to implement requirements of the NPDES Permit Program as it applies to each STP and its permit conditions.

- Initiate and complete renegotiation of the Memorandum of Understanding (Appendix 2-7) between the DEQ and the State Health Division to reflect current activities and needs in the Tillamook Bay Drainage Basin.
- Coordinate STP activities with State Health Division pertaining to the Memorandum of Understanding and the adopted Malfunction Notification Procedures for each STP.
- Annually evaluate each STPs progress in implementation of this Plan.

City of Tillamook Responsibilities

- As the permittee for the Tillamook City Sewage Treatment Plant, be the Local Management Entity for implementation of the Sewage Treatment Plant Section specific to the city's STP of the Tillamook Bay Drainage Basin Fecal Waste Management Plan.
- Upon notification that the Food and Drug Administration concurs with the recommendations of this Plan, the City, within six months of Plan adoption will:
 - A. Purchase and install an automatic chlorine cylinder changeover device.
 - B. Purchase and install a residual chlorine analyzer using Construction Grant funds (if available).
 - C. In coordination with the DEQ, monitor operation and effectiveness of the residual chlorine analyzer during 1981-1982.
 - D. Agree to an NPDES permit addendum that requires the city to follow the Malfunction Notification Procedure (Appendix 2-1).
- Continue to satisfy the requirements of the NPDES permit issued for operation of the city sewage treatment plant.
- Annually meet with the DEQ and Oregon State Health Division to discuss progress in implementation of this Plan.

City of Garibaldi Responsibilities

- As the permittee for the Garibaldi City Sewage Treatment Plant be the Local Management Entity for implementation of the Sewage Treatment Plant Section specific to the city's STP of the Tillamook Bay Drainage Basin Fecal Waste Management Plan.
- Upon notification that the Food and Drug Administration concurs with

the recommendation of this plan, the City within six months of Plan adoption, will:

- A. Purchase and install an automatic chlorine cylinder changeover device, type of equipment to be negotiated with the DEQ.
 - B. Purchase and install an alarm system on the pump stations and chlorinators that will activate the Malfunction Notification Procedure (Appendix 2-3).
 - C. Agree to a NPDES permit addendum that requires the City to follow the Malfunction Notification Procedure (Appendix 2-3).
 - D. Negotiate with the DEQ, the installation of a chlorine residual analyzer if deemed necessary in July, 1982. DEQ recommendation for installation will be based on the experience gained in 1981-1982 operation of the analyzer installed at the City of Tillamook STP.
- Continue to satisfy the requirements of the NPDES permit issued for operation of the City Sewage Treatment Plant.
 - Annually meet with the DEQ and Oregon State Health Division to discuss progress and implementation of this Plan.

City of Bay City Responsibilities

- As the permittee for the Bay City sewage treatment plant be the Local Management Entity for implementation of the Sewage Treatment Plant Section specific to the city's STP of the Tillamook Bay Drainage Basin Fecal Waste Management Plan.
- Upon notification that the Food and Drug Administration concurs with the recommendations of this Plan, the city, within six months of Plan adoption, will:
 - A. Purchase or build a device that will automatically shut off the effluent pump if the chlorinator malfunctions.
 - B. Alarm the device to notify operators when the chlorinator fails.
 - C. Agree to a NPDES permit addendum that requires the city to follow the Malfunction Notification Procedure (Appendix 2-5).
- Continue to satisfy the requirements of NPDES permit issued for operation of the city sewage treatment plant.

- Annually meet with DEQ and Oregon State Health Division to discuss progress in implementation of this Plan.

Tillamook County Creamery Association Responsibilities

- As the permittee for the Tillamook County Creamery Association sewage treatment plant be the Local Management Entity for implementation of the Sewage Treatment Plant Section specific to the Association's STP of the Tillamook Bay Drainage Basin Fecal Waste Management Plan.
- Upon notification that the Food and Drug Administration concurs with the recommendations of this Plan, the Association, within six months of Plan adoption will:
 - A. Purchase and install an alarm for the chlorinator that will cause activation of the Malfunction Notification Procedure (Appendix 2-2).
 - B. ~~The first summer following the adoption of Plan, clean-out and renovate the sludge storage lagoon.~~ As per the Association's commitment letter of June 5, 1981 change as follows: Operate the aerated surge basin at 1/3 to 1/2 full.
 - C. Agree to a NPDES permit addendum that requires the Creamery to follow the Malfunction Notification Procedure. (Appendix 2-2).
- Continue to satisfy the requirements of the NPDES permit issued for operation of the Creamery sewage treatment plant.
- Annually meet with the DEQ and Oregon State Health Division to discuss progress and implementation of this plan.

Port of Tillamook Bay Responsibilities

- As the permittee for the Port's sewage treatment plant be the Local Management Entity for implementation of the Sewage Treatment Plant Section specific to the Port's STP of the Tillamook Bay Drainage Basin Fecal Waste Management Plan.
- Upon notification that the Food Drug Administration concurs with the recommendations of this Plan, the Port within six months of plan adoption will:
 - A. Install an automatic gate shutting device that will stop the effluent discharge if the chlorinator malfunctions.
 - B. Alarm the device to notify operators when the chlorinator fails.
 - C. Agree to a NPDES permit addendum that requires the Port

to follow the Malfunction Notification Procedure (Appendix 2-4).

- Continue to satisfy the requirements of the NPDES permit issued for operation of the Port's sewage treatment plant.
- Annually meet with the DEQ and Oregon State Health Division to discuss progress and implementation of this Plan.

Oregon State Health Division Responsibilities

- Take appropriate actions as specified in the STP Malfunction Notification Procedures (Appendices 2-1 to 2-5).
- Assist the DEQ in the annual evaluation of each STPs progress in implementation of this Plan.
- Renegotiate the Memorandum of Understanding (Appendix 2-7) between Oregon State Health Division and the DEQ to reflect current activities and needs in the Tillamook Bay Drainage Basin.
- Provide suggested improvements in the Plan to the Local and State Management Agencies of this Plan.

Staff and Financial Resources to Carry Out the Plan

State Resources

Department of Environmental Quality

Staff and financial resources available to implement this plan will be those already budgeted. No additional personnel or funding will be obtained. Staff available to monitor the STP activities are located in Portland and the DEQ Branch Office in Portland.

Funding for the staff is provided through state and federal funds. Total cost to the Department will depend upon the number of man hours expended and will vary according to the extent of the inspections, assistance and malfunction complexity.

Oregon State Health Division

Staff and financial resources available to assist in implementation of this Plan will be those already budgeted. No additional staff or funding will be required. Staff available to carry out the Division's responsibilities in this Plan is the one person assigned to the Oregon Shellfish Sanitation Program. Funding for this person is provided through a fees schedule and State General Fund monies. The fees schedule and disposition of the fees is authorized in ORS 622.080 and 622.090. Total cost to the Division will depend upon the number of man hours expended in carrying out the Division

responsibilities as specified in this Plan.

Local Management Entity Resources

Staff and financial resources available to the STP permittee to carry out this Plan are designated in their STP operating budgets. Money for these budgets are provided through sewerage system user fees.

TILLAMOOK COUNTY CREAMERY ASSOCIATION

Producers of genuine "TILLAMOOK CHEESE"

P. O. Box 313
TILLAMOOK, OREGON 97141



AREA CODE 503
PHONE 842-4481

June 5, 1981

Department of Environmental Quality
PO Box 1970
Portland OR

Attn: John Jackson

RE: Tillamook Bay Waste Management Plan Preliminary Draft

We are in receipt of the draft recently completed and find it to be a complete and well executed document.

We would appreciate reconsideration on the following point, however. On page 2-6 and again on page 2-12 mention is made of draining the Siletz Lagoon. Again on page 1 of Appendix 2-2 mention is made of a procedure in case of dike over flow at this lagoon.

Because of the extreme expense in draining and upgrading this lagoon we have chosen to terminate the use of the lagoon. This decision was made with the approval of the local DEQ officials.

This change of procedure was made possible by a commitment to operate the influent receiver at 1/3 to 1/2 full under normal conditions and the completion of the sludge receiver with about 3 days holding capacity. This holding tank coupled with the approved sludge disposal sites close at hand have eliminated the need to use the lagoons as an emergency disposal system.

We are hoping this meets with your approval. With these minor changes we are in a position to approve the document as it applies to Tillamook County Creamery Association and assure you that it will comply with its provision.

Sincerely,
TILLAMOOK COUNTY CREAMERY ASSOCIATION

J. E. Spindler
Plant Engineer

cc: DEQ Tillamook
Pete Sutton
Dave Westmark

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
JUN 10 1981

WATER QUALITY CONTROL

Evaluation of Plan Implementation

A meeting will be held once a year with each Local Management Entity at the time of the annual permit inspection to evaluate the progress of implementing the Plan.

The meeting will consist of representatives from:

Department of Environmental Quality

Oregon State Health Division

Sewage Treatment Plant Permittee

The goal of the meeting will be to determine if satisfactory progress has been made in implementing the Plan. This determination will be based on the Local Management Entity demonstrated progress in implementing the agreed responsibilities.

Recertification Process of the Plan
for Sewage Treatment Plants

1. Annually, at the time of the annual permit inspection for each STP, the Source Control Section of the DEQ Water Quality Division will prepare an evaluation report for each STP describing the progress made in implementing the Sewage Treatment Plant portion of the Fecal Waste Management Plan. The report should include but not be limited to:
 - Identification of equipment modifications made and operating that are described in this Plan.
 - Results of the review of the effluent quality data required by the NPDES permit.
 - Results of the review of the Malfunction Notification Procedure usage (i.e. number of times used, problems encountered and its use, suggested changes in the procedure).
 - Schedule for continued use of the Plan.
 - Recommended changes in the Plan.
2. The reports will be submitted to the Planning Section of the DEQ Water Quality Division.
3. The reports will be analyzed by the Water Quality Planning Section.
4. DEQ will prepare a report covering all the Management Entities in the Sewage Treatment Plant portion of the Fecal Waste Management Plan and present it to the DEQ Water Policy Advisory Committee for their discussion and comment.
5. DEQ will prepare a recertification report for applicable Environmental Quality Commission action.
6. DEQ will transmit recertification materials to the Governor.
7. The Governor will submit recertification letter to the Environmental Protection Agency.

IMPLEMENTATION

Staffing and Funding Analysis

The Tillamook County Soil and Water Conservation District was designated as the lead management agency for implementation of the water quality plan. The Tillamook County Soil and Water Conservation District (SWCD) has relied on the Comprehensive Employment Training Act (CETA) for staffing. Direct technical support staff is provided by the USDA Soil Conservation Service (SCS). Other technical support is provided by the USDA Agricultural Stabilization and Conservation Service (ASCS), Oregon State University Extension Service, Oregon Department of Fish and Wildlife, Oregon Department of Forestry, and Tillamook County Planning Department.

The SCS provides staff to assist the Tillamook County SWCD develop and implement resource conservation plans. TABLE 9 is a workload analysis based on utilizing forty-six percent of the time of two SCS employees within the Tillamook Bay Drainage Basin. Thirty percent of the time of one and one-half ASCS personnel is projected for the Basin. In the past five years, the Agricultural Conservation Program average expenditures within the Basin for animal waste storage facilities, excessive water management systems, and streambank sediment control practices were evaluated. By this analysis, present staffing and financial assistance is not adequate to implement best management practices within the next ten years. Consequently, priorities will need to be established or additional personnel provided.

The Tillamook County SWCD will assist SCS and ASCS to identify annually the critical agricultural related water quality pollution problem areas. These federal agencies will develop water quality plans and provide financial assistance to those agricultural operations having critical water quality pollution problems. Tillamook County SWCD will explore additional funding sources that are available for hiring additional technical support staff. Additional staff is needed to accelerate development of individual agricultural pollution abatement plans and provide technical assistance in implementing best management practices.

Potential funding sources for Tillamook County SWCD are:

1. FEDERAL - One of the USDA Resource Conservation Act (RCA) alternatives is that the federal government pass funds through State Soil and Water Conservation agencies or directly to SWCDs. While this potential source seems rather unlikely at the present, it will be pursued with the State Soil and Water Conservation Commission (SWCC) through the National Association of Conservation Districts and Oregon's Congressional Delegation.

2. STATE - State funding for SWCC and District operations has traditionally been limited. The State General Fund currently finances a substantial share of the cost of Forest Practices Act's water quality efforts. A similar commitment to the agricultural sector of the state's economy is certainly justified; hence, this will be explored in cooperation with the Oregon Association of Conservation Districts (OACD).
3. COUNTY - Tillamook County SWCD currently receives limited annual funding for district operations from county sources. The Tillamook County SWCD does provide service to county government, and this role could be greatly expanded. Additional funding will be explored primarily on the basis of service provided to the county.
4. DISTRICT - District taxing authority has been proposed through resolution by the OACD to the State Legislature. If granted, and accepted by the public, the tax monies could be used for management agency responsibilities and/or project funding.

Funds for the public's share of projects' costs may come from several sources.

1. Traditional cost share funds (Agricultural Conservation Program, (ACP), from the federal government through the USDA Agricultural Stabilization and Conservation Service (ASCS). Some special project funds have been used on problem areas from ASCS. ASCS also administers the Rural Clean Water Program (RCWP).
2. Special project funding through Small Watershed Project (PL-566) and Resource Conservation and Development Projects are administered by the USDA Soil Conservation Service.
3. Technical assistance by the Soil Conservation Service is not an actual funding resource, but represents a very substantial contribution to BMP installation. Traditional SCS technical assistance is made available on both individual and group programs.
4. Project funding through the State General Fund is being sought and this source of funds will continue to be explored in cooperation with the OACD.

5. SWCD taxing authority, as previously described herein, and County General Funds are potentials that will be investigated.

Landowner installation costs are substantial for both cost shared and non-cost shared BMP applications. Many times, landowner costs exceed his direct benefit and thus cost shared funds must be expanded if satisfactory progress in improvement of water quality is to be successful. Many BMPs have been and will continue to be implemented at the landowner/operator expense. Many of these BMPs are cost effective, but do require changes in overall management.

As a part of the State SWCC Statewide Framework Plan for Water Quality Management, all of these options and any others which may become available, will be explored and the most practical ones for specific situations will be selected. Tillamook County SWCD will be assisted by the State SWCC to review possible options so we can select the most appropriate and practical ones for our specific situations.

TABLE 9

TILLAMOOK BAY DRAINAGE BASIN
208 PLAN IMPLEMENTATION
WORKLOAD ANALYSIS
ASSUME 46% OF SCS STAFF & 30% OF ASCS STAFF TIME SPENT IN THIS AREA*

Indicator Items	Unit of Measure	Total Needs	Man Hr. Factor/ Unit	Total Man Hrs. Needed	Tech. Staff Cost Dollars	Staff Avail. Man Hrs./ Year	Projected Accomplishments			Projected ASCS ACP Funds		Projected Accomplishments		
							3 Years	5 Years	10 Years	Per Year	10 Years	3 Years	5 Years	10 Years
ASCS REQUESTS FOR COST SHARES	NUMBER	405	12.0	4,877	64,911	468	117	194	390					
CONSERVATION PLANS Individual plans developed to identify and schedule for implementing BMPs on Agri. land units	NUMBER	113	48.0	5,424	44,423	528	33	55	110					
Animal Waste Storage Facilities	60 Day 90 Day 120 Day 150 Day 180 Day	122 244 366 488 610	30.0	3,651 7,332 10,988 14,651 18,314		273	21	35	70	10,000	100,000	9	15	30
Excess Water Mgt. Systems Tide Gates, Open Ditches & Tile Lines	ACRES	2540	2.4	6,096	45,172	137	171	285	570	8,079	80,790	96	160	320
Strm. Bank Sed. Control 30% Sediment Reduction	Lin. Ft.	20,930	0.09	1,922	15,741	136	4,435	7,390	14,780	3,233	32,330	653	1069	2178
Information Prog., Pub. Mtgs, News Articles etc.	NUMBER	240	4	960	7,862	95	72	120	240					

*Based on two (2) full time SCS and one and one-half (1 1/2) full time ASCS employees.

Implementation Procedures PolicyPurpose

The following is the process to implement a program of agricultural non-point source pollution abatement within the Tillamook Bay Drainage Basin. Existing local, state, and federal agencies and local organizations will serve as advisors to the Tillamook County Soil and Water Conservation District (SWCD) and/or as members or advisors to an evaluation committee. The agencies' or organizations' responsibilities are listed in this procedures policy.

Implementation addresses two phases. A voluntary phase and a possible mandatory phase. The voluntary phase will be the initial period following the certification of this plan by Tillamook County SWCD, Oregon State Soil and Water Conservation Commission, Oregon Department of Environmental Quality, and U.S. Environmental Protection Agency. The Tillamook County SWCD will determine if a mandatory phase should be implemented. This determination will be based on the evaluation committee's recommendations.

Authority

The Tillamook County SWCD Board is composed of seven directors who are elected during Oregon's general election for a four-year term. To ensure proper representation of all the people in the district, and to facilitate district functions, the district is divided into five zones. Each zone will have a director. Not more than two of such directors may be a land occupier who resides within the district. The remaining directors shall be landowners or managers who reside within the district and manage more than 10 acres within the district. Under ORS 568.550, SWCDs have authority to contact, accept and utilize grants, raise revenues, and incur short and long term indebtedness. SWCD have quasi-judicial capacity to enact regulations, under ORS 568.630-770, in the interest of conserving soil and water resources.

Voluntary Phase

The initial period will be voluntary. It will begin when the last signature of this agreement is obtained.

During this period, the Tillamook County SWCD's annual work plan will address the development or revision of agricultural water quality plans within the Tillamook Bay Drainage Basin. High priority will be given to the critical Tillamook, Trask, and Wilson River Drainage Basins. These rivers flow over the Tillamook Bay oyster and clam beds. Agricultural related pollution reduction on these rivers will have the greatest impact on improving Tillamook Bay's water quality.

High priority will be given to valid water quality complaints, agricultural operations adjacent to open water courses or located on poorly drained soils, and agricultural operations identified through the Tillamook County SWCD's agricultural inventories. A valid water quality complaint is one in which a DEQ and a SWCD representatives' on-site investigation determines a water quality problem exists. The Tillamook County SWCD Board of Directors will work with the Tillamook County ASC Committee to establish priorities in cost-sharing assistance under the ACP program. The ASC Committee has applied for Rural Clean Water funding. When funded, the SWCD will keep the ASC Committee, Local Coordinating Committee, Tillamook Water Quality Committee and the Evaluation Committee abreast of critical water quality problem areas.

The Tillamook County SWCD will work with the County Extension Service agent to implement an aggressive informational and educational program. SCS and ASCS will be urged to assist the Extension Service with this program. The Tillamook County SWCD's annual work plan will address this action.

DEQ will be responsible for notifying the agricultural producer and the Tillamook County SWCD in writing of water quality complaints filed against agricultural producers. The Tillamook County SWCD will contact the producer's buyer, informing them of the complaints. Through SWCD coordination with agricultural producer's buyer representative, SCS, ASCS, Extension Service, and DEQ, the Board of Directors will work aggressively to solve valid water quality complaints through voluntary compliance. Any enforcement action during this initial phase will be under existing state water quality regulations.

Mandatory Phase

The Tillamook County SWCD will determine if a mandatory phase should be implemented. This determination will be based on the Evaluation Committee's recommendations.

Oregon Department of Environmental Quality will be requested by the Tillamook County SWCD to implement a mandatory phase. This mandatory phase will include, but not be limited to:

DEQ and SWCD inspections of agricultural operations for existing or potential water quality pollution sources.

Agricultural producers deemed in violation will be required to develop a pollution abatement plan in cooperation with DEQ and SWCD.

Agricultural producer's lack of progress in developing or implementing a pollution abatement plan in a reasonable time as determined by DEQ in cooperation with the Tillamook County SWCD will be subject to enforcement by DEQ.

Agencies or Organizations Responsibilities

Tillamook County SWCD

Be Tillamook County's implementation agency for 208 water quality program on agricultural lands and revising BMPs.

Appoint a member to serve on the Evaluation Committee.

Maintain a water quality advisory committee.

Fill vacancies on the Water Quality Committee.

Keep the ASC County Committee, Rural Clean Water Project Coordinating Committee, Tillamook Bay Water Quality Committee, and Evaluation Committee informed of critical water quality areas and progress in applying best management practices and agricultural pollution abatement plan development.

Determine whether or not a mandatory phase should be implemented by DEQ.

Tillamook Bay Water Quality Committee

Act as an advisory committee to the Tillamook County SWCD.

Serve as a member on the Evaluation Committee.

Appoint two private citizens residing in the Tillamook Bay Drainage Basin to serve on the Evaluation Committee. These appointees will be persons who are not likely to incur a financial gain or loss greater than that of an average homeowner, taxpayer, or consumer as a result of actions taken by the Evaluation Committee.

Meet at least once a year to review the agricultural non-point source pollution abatement plan to ensure plan is being implemented satisfactorily.

Recommend to the Tillamook County SWCD any changes needed in the plan.

Responsible for notifying Tillamook County SWCD of any vacancies on the committee.

Tillamook County Board of Commissioners

Appoint a representative to serve on the Evaluation Committee.

Tillamook County ASC Committee

Serve as an advisor to the Tillamook County SWCD.

Appoint a representative to serve on the Evaluation Committee.

Meet annually with the Tillamook County SWCD to review and establish the critical agricultural related water quality pollution problem areas.

Tillamook County Creamery Association

Serve as an advisor to the Tillamook County SWCD.

Appoint a representative to serve on the Evaluation Committee.

Assist Tillamook County SWCD and Oregon State Extension Service in developing and implementing an education program to inform Tillamook County Creamery Association producers about the agricultural pollution abatement plan.

McMinnville Farmer Cooperative Creamery

Serve as an advisor to the Tillamook County SWCD.

Appoint a representative to serve on the Evaluation Committee.

Tillamook County Farm Bureau

Appoint a representative to serve on the Evaluation Committee.

Tillamook Bay Oyster Growers

Appoint a representative to serve on the Evaluation Committee.

Oregon Department of Environmental Quality

Serve as an advisor to the Tillamook County SWCD.

Appoint a representative to serve on the Evaluation Committee.

Coordinate DEQ's programs with SWCD's to ensure water quality goals related to agricultural lands are being achieved.

Assist SWCD in evaluating the voluntary phase.

Responsibility for notifying producers and Tillamook County SWCD in writing of agricultural related complaints.

Review and approve Tillamook County SWCD's annual evaluation report.

Responsibility for implementing a mandatory phase when needed.

Oregon State Soil and Water Conservation Commission

Appoint a representative to serve on the Evaluation Committee.

Provide program administrative and financial support to the Tillamook County SWCD.

Review and approve Tillamook County SWCD's annual evaluation report

Assist Tillamook County SWCD in evaluating agricultural non-point source pollution reduction.

Assist Tillamook County SWCD in coordinating agricultural pollution abatement activities with the Oregon Department of Environmental Quality.

Keep Tillamook County SWCD informed of federal or state water quality programs, or legislation that may affect agricultural operations.

Oregon Department of Human Resources, Health Division

Appoint a representative to serve on the Evaluation Committee.

Provide technical assistance to the Tillamook County SWCD regarding state shellfish programs.

Oregon State University Extension Service

Serve as lead agency in developing and implementing a strong informational and educational program informing the public about the water quality program and implementation of BMPs.

Provide technical support for BMP implementation.

Assist Tillamook County SWCD in reviewing and revising BMPs.

Serve as an advisor to the Tillamook County SWCD.

Serve only as an advisor to the Evaluation Committee.

Maintain a mailing list which will be used to inform agricultural producers about the water quality plan.

Oregon Department of Fish and Wildlife

Serve as an advisor to the Tillamook County SWCD.

Appoint a representative to serve only as an advisor to the Evaluation Committee.

Provide fish and wildlife technical assistance to Tillamook County SWCD regarding agricultural non-point source pollution BMP implementation.

Coordinate Oregon Department of Fish and Wildlife's programs with Tillamook County SWCD so Tillamook County SWCD's plan and program achieves desirable fish and wildlife goals.

Oregon Department of Forestry

Serve as an advisor to the Tillamook County SWCD.

Appoint a representative to serve on the Evaluation Committee.

USDA Soil Conservation Service

Develop individual agricultural non-point source pollution abatement plans in the Tillamook Bay Drainage Basin.

Coordinate the implementation of agricultural non-point source pollution abatement plans with other agencies.

Assist Tillamook County SWCD in reviewing and revising BMPs as needed.

Serve as an advisor to the Tillamook County SWCD.

Serve only as an advisor to the Evaluation Committee.

Assist Tillamook County SWCD with an educational program emphasizing the use of BMPs for water quality improvement.

Develop appropriate standards and specifications for water quality practices (BMPs) and incorporate into SCS Field Office Technical Guide.

Meet annually with Tillamook County SWCD to review and establish the critical agricultural related water quality pollution problem areas.

Set a high priority for follow-through with those agricultural operations identified by Tillamook County SWCD as potential water quality problems.

USDA Agricultural Stabilization and Conservation Service

Coordinate Agricultural Conservation Program (ACP) with this plan.

Cooperate with Tillamook County SWCD in management of any funds received under the Rural Clean Water Project (RCWP).

Inform agricultural producers of cost-sharing funds available for agricultural pollution abatement practices (BMPs).

ASCS County Executive Director will only serve as an advisor to the Evaluation Committee.

USDA Farmers Home Administration

Provide loans to agricultural producers to implement pollution abatement practices.

Provide loans to Tillamook County SWCD, public bodies, and non-profit organizations for water quality projects such as drainage, flood control, special purpose equipment, irrigations systems, and Resource Conservation and Development projects.

Agency or Organization Termination Procedure

Any agency or organization's responsibilities may be terminated on the last day of September of any year upon serving six (6) months written notice to the Tillamook County SWCD, Oregon Department of Environmental Quality, and State Soil and Water Conservation Commission. Such notice shall be mailed to the above named agencies by certified mail, postage prepaid, and shall be deemed served the day after depositing such notice in a United States Post Office.

Amendments may be made to this plan at any time but only upon the written agreement of all parties hereto.

This plan contains all of the terms and conditions agreed upon by the parties hereto. No other understandings, oral or otherwise, regarding the subject matter of this plan shall be deemed valid. By affixing your respective signatures below, all parties affirm and agree that no representations, promises or agreements not expressed in this plan have been made.

IN WITNESS WHEREOF, the agencies hereto have caused this plan to be adopted on this 6th day of May 1981, at Tillamook County, State of Oregon.

TILLAMOOK COUNTY SOIL AND WATER CONSERVATION DISTRICT

By Rudy Feenk, Chairman

TILLAMOOK BAY WATER QUALITY COMMITTEE

By Chris C. Allright, Chairman

TILLAMOOK COUNTY BOARD OF COMMISSIONERS

By Gayle Woodcock
F. E. Knight
Carol Williams

TILLAMOOK COUNTY ASC COMMITTEE

By Rudy Feenk, Chairman

TILLAMOOK COUNTY CREAMERY ASSOCIATION

By Robert A. Higgins, President

McMINNVILLE FARMER COOPERATIVE CREAMERY

By Cap Nagelski, Tillamook County Representative

TILLAMOOK COUNTY FARM BUREAU

By Tom Dale Bucke, President

TILLAMOOK BAY OYSTER GROWERS

By Tom Hovine

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

By William N. Young, Director

OREGON STATE SOIL AND WATER CONSERVATION COMMISSION

By Charles V. Giles, Director

OREGON STATE DEPARTMENT OF HUMAN RESOURCES, HEALTH DIVISION

By Katherine M. Williams, Administrator

OREGON STATE UNIVERSITY EXTENSION SERVICE

By W.A. Stebbins, Director

OREGON DEPARTMENT OF FISH AND WILDLIFE

By , Director

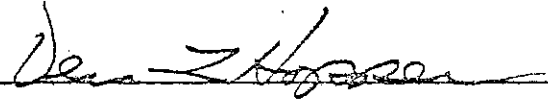
OREGON DEPARTMENT OF FORESTRY

By , State Forester

USDA SOIL CONSERVATION SERVICE

By , State Conservationist

USDA AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

By , State Executive Director (Acting)

USDA FARMERS HOME ADMINISTRATION

By , State Director, Acting

TILLAMOOK COUNTY SOIL AND WATER CONSERVATION DISTRICT'S

IMPLEMENTATION STATEMENT

Soil and Water Conservation District Programs are administered by a locally elected board of directors acting under the authority of ORS 268.210 - 568.800. Responsibilities of the district boards include control and prevention of soil erosion, prevention of flood water and sediment damage; conserve and develop water resources and water quality and protect and promote the health, safety, and general welfare of the people of this state.

Through contractual agreements, memorandums of understanding and mutual agreements, various federal, state and local agencies provide technical and/or financial assistance to the owners/operators of land within the district. District directors will carry out their administrative and coordinating functions as required for 208 implementation.

The Tillamook County Soil and Water Conservation District agrees to serve as the local management agency for 208 implementation. This is in accordance with the Tillamook Bay Non-Point Source Management Plan for Tillamook County. In its management role, consistent with available resources, the district will be responsible for implementing an active non-point source water quality plan for Tillamook County.

RESPONSIBILITIES FOR THE LOCAL MANAGEMENT AGENCY

- A. The Tillamook County SWCD, local management agency, must assure the Tillamook Bay Drainage Basin Agricultural Non-Point source Pollution Abatement Plan is managed and directed to reduce agricultural related pollution.
 1. Assure that Best Management Practices (BMPs) are given consideration for funding under the Rural Clean Water Program (RCWP), Agricultural Stabilization and Conservation Service (ASCS), Agricultural Conservation Program (ACP), and any other funding resource which may become available.
 2. Evaluate the effectiveness of BMPs implemented as a result of this plan.
 3. Promote public understanding and involvement in this plan.
 4. Coordinate this plan with the Oregon Soil and Water Conservation Commission, Oregon State Department of Environmental Quality, and other appropriate state and federal agencies.

5. The Tillamook County SWCD shall annually review and update this plan with the Oregon Soil and Water Conservation Commission and the Department of Environmental Quality and in accordance with 40CFR 35.1523-6.
- B. Adopt and keep current a District Natural Resource Conservation Program which will identify the major resource conservation needs of the district including a commitment to improve water quality.
 - C. Prepare and adopt an annual work plan which includes:
 1. An identification of priority problem areas which need application of BMPs. Priority will be based on valid water quality complaints, animal confinement areas adjacent to open water courses, operations located on poorly drained soils, and agricultural operations identified as having potential water quality related problems.
 2. A time schedule for achieving installation of BMPs.
 3. A commitment to seek additional resources for BMP implementation.
 4. Coordinate Soil Conservation Service's follow-through program so that it is directed at contacting operators having agricultural related water quality problems.
 - D. Prepare an annual report for submission to the State Soil and Water Conservation Commission which indicates progress made in installation of BMPs.
 - E. Annually review adopted BMPs and revise as needed.
 - F. Coordinate and organize an active information and education program to reach both the general public and landowners/operators.
 1. Cooperate with Oregon State University Extension Service personnel in information and education efforts.

2. Organize and coordinate tours, slides programs, and other informational activities.
3. Make direct contact with operators in priority areas to enlist their cooperation in installation of BMPs within the limits of available technical and financial assistance.

ACCEPTANCE STATEMENT

This is to certify that the Tillamook County Soil and Water Conservation District will accept the responsibility for implementing the Tillamook Bay Dainage Basin Agricultural Non-Point Source Pollution Abatement Plan and will serve as management agency for other 208 implementation activities within the limits of technical and financial resources which shall be made available for the purpose.

Rudy Hank, Chairman, Tillamook
County SWCD

Esther Rose, Secretary, Tillamook
County SWCD

By Resoulution of the Tillamook County Soil and Water Conservation
District Board of Directors: April 15, 1981
Date

Approved by the Oregon State Soil and Water Conservation Com-
mission:

Fusscott Liby, Chairman 4/28/81
Date

Charles V. Viles, Director 4/22/81
Date

State and Federal Water Quality Regulations Affecting Animal Feeding Operations

The implementation process will be modified when agricultural confinement operations are affected by these regulations. State regulations define confined animal feeding operations as "concentrated feeding or holding of animals or poultry in buildings, pens, or lots where the surface has been prepared with concrete, rock, or figrous materials to support animal in wet weather or where the concentration of animals has destroyed the vegetative cover and the natural infiltrative capacity of the soil." It identifies operations which will be regulated by the issuance of a permit or an approval letter.

State Permit and Approval Regulations

The State permit regulation is as follows:

"All confinement areas, manure handling and accumulation areas and disposal areas and facilities shall be located, constructed, and operated such that manure, contaminated drainage waters or other wastes do not enter the water of the State at any time, except as may be permitted by the conditions of a specific waste discharge permit issued in accordance with ORS 944.083."

The State approval regulation is as follows:

"A person constructing or commencing to operate a confined feeding or holding operation or waste control facility, or substantially modifying or expanding an existing confined feeding or holding operation or waste control facility shall first submit detailed plans and specifications for said facility and operation and other necessary information to the Department and obtain approval of the proposed facility from the Department in writing."

Federal Permit Regulations

A National Pollutant Discharge Elimination System (NPDES) permit application is required when any of the following conditions exist:

1. The operation confines 1,000 or more animal units.
2. Pollutants from a 300 or more animal unit operation are discharged into navigable waters through a man-made ditch,

pipe or other conveyance device.

3. Pollutants from a 300 or more animal unit operation are discharged into waters passing through or coming in contact with animals in a confinement area.

An exception is if the pollutant discharge occurs during a storm which exceeds a 25-year, 24-hour event.

4. If an on-site inspection indicates a high probability that navigable water pollution occurs or could occur, a permit is required. This determination is made by considering the following.

Size of operation and amount of wastes reaching navigable waters.

Operation's location relative to navigable waters.

Animal wastes and process waste water conveyance method.

Slope, vegetation, rainfall, and other factors affecting the frequency of animal waste and process waste water discharge.

No permit application is required in the fourth condition unless operator or owner is notified in writing. Under the first three regulations, the owner or operator must initiate the permit application without written notification from the regulatory authority to be in compliance with the law.

Classification of Operations as Related to Pollution Potential

State and Federal regulatory agencies have recognized some confined animal feeding operations pose a greater potential water quality problem than others.

Direct runoff or discharge of manure-contaminated water into surface waters.

Conversion from a solid waste system to a liquid system.

Extensive management is needed to prevent possible water contamination.

Large operations.

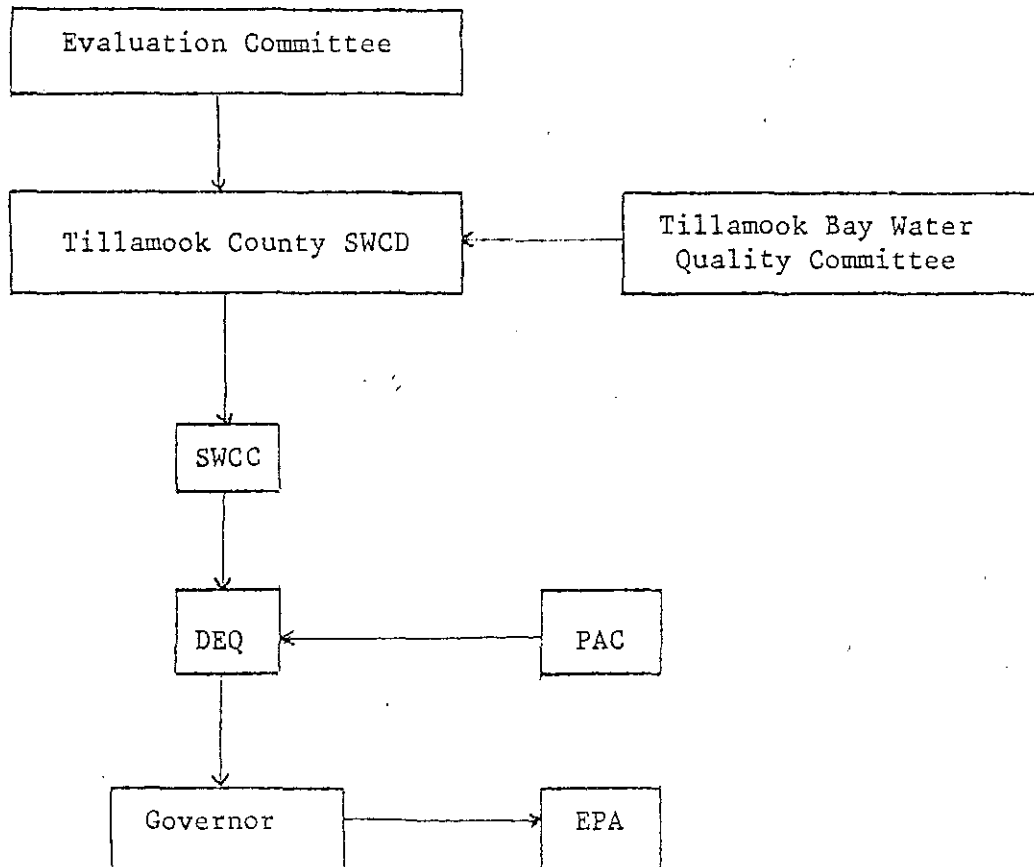
Operations through which surface water flows.

Operations where animals have direct access to water courses.

Operations which stockpile manure adjacent to water courses.

Operations having physical and climatic factors as slope, soil, and precipitation which increases the probability of manure entering an open water course.

Recertification Process



STEPS

1. Evaluation Committee will meet in July to review water quality plan.
2. Tillamook County SWCD will meet in September and develop an implementation report that addresses items covered by the Evaluation Committee and Tillamook Bay Water Quality Committee, and submit it to Oregon State Soil and Water Conservation Commission.
3. Oregon State Soil and Water Conservation Commission will prepare a report on the Tillamook County SWCD evaluation and submit it to DEQ.
4. DEQ will review and prepare recertification letter for Governor.
5. Governor will submit recertification letter to the Environmental Protection Agency.

TILLAMOOK BAY DRAINAGE BASIN AGRICULTURAL
POLLUTION ABATEMENT PRACTICES INSTALLATION
GUIDE BOOK

Three criteria were the basis for developing the best management practice (BMP) alternatives presented in this installation guide book.

- They must improve water quality
- They must be economically feasible
- They must have local support

Each agricultural operation is unique and requires its own method of improving water quality. These alternatives are intended to assist agricultural producers in correcting a water quality problem by implementing one or more of these BMPs through a water quality plan. Technical assistance is available through the Tillamook County Soil and Water Conservation District (SWCD).

Water quality monitoring results indicate animal confinement areas adjacent to open water courses have the greatest potential impact on water quality. Other agricultural related pollutants are associated with animal waste application and flooding frequency. Pollution abatement problems and alternative solutions are listed in this guide book according to animal confinement areas, field application of manure and water course areas.

These best management practices have been written in layman's terms. The Tillamook County SWCD will use the Soil Conservation Service's Technical Guide, Section IV, National Handbook of Conservation Practices when assisting agricultural operators install appropriate practices. TABLE 20 is a list of SCS practices that are applicable for Situations A, B, and C. Oregon State University Agricultural Department's manure bacterial accounting methodology data will also be used to evaluate the best management practices needed.

SITUATION A. ANIMAL CONFINEMENT AREAS

Problem 1: Runoff from animal confinement area enters open water course

BMP 1: Relocate confinement area

The confinement area should be relocated away from open water courses. The distance should be 300 feet or more from an open water course. The probability of runoff reaching an open water course is greatly reduced.

Relocation is very costly, particularly for large operations. However, this is an option which should be considered by an

operator when considering reconstructing a major portion of a confinement area.

BMP 2: Regrade and slope confinement area away from open water course

The confinement area should be sloped away from open water courses. Fences should be constructed to exclude livestock from the stream or ditch slopes. Grass should be established on the slopes.

BMP 3: Divert clean water away from confinement area

Water from roofs should not be allowed to enter confinement areas. Gutters and downspouts should be installed on confinement building areas. Downspouts should be connected to a drain tile. Drain tile should outlet in an animal waste free area.

Roofing may be needed to divert rainfall and runoff away from confinement areas. Gutters and downspouts are roofing practice components.

Roofing is expensive for large confinement areas. All downspouts and drain tile will need protection from heavy equipment. Adequate tile coverage is important.

BMP 4: Construct a barrier

A small earth ridge or curb can be constructed at the edge of a confinement area parallel to the open water course. Concrete slabs should be sloped to a manure tank. A pump may be needed for transporting polluted water to a storage or disposal area.

BMP 5: Enclose open water course

A small ditch immediately adjacent to a confinement area can be enclosed in a conduit. The structure should be non-porous and

sized to accomodate the peak storm flow. Before installation, the Oregon Department of Fish and Wildlife must be consulted to ensure there is not undue disruption of the water course. An Oregon Division of State Lands' permit may be required.

BMP 6: Redirect open water course around confinement area

The construction or rechannelling of smaller waterways around confinement areas will prevent animal wastes from entering an open water course. Before diverting a water course, the Oregon Department of Fish and Wildlife must be consulted to ensure that there is not undue disruption of the water course corridor. A permit from the Oregon Division of State Lands may be required.

Problem 2: Manure pile runoff enters open water course

BMP 1: Construct a roofed solid waste storage facility

A solid manure storage facility having a concrete or tightly fitted wood plank walls will hold manure. A roof will reduce runoff from manure piles. Seepage should be collected in a drain and piped to a liquid manure storage tank or lagoon.

BMP 2: Construct a liquid manure tank or lagoon

A liquid manure tank or lagoon may be needed. All manure seepage and waste water must be managed in a fashion that precludes water degradation.

Problem 3: Silage installation seepage enters open water course

BMP 1: Minimize silage seepage

Weather is a determining factor in cutting ensilage. To minimize silage seepage, avoid ensiling excessively wet ensilage. Wet silage will create large drainage losses and will make inferior silage due to nutrient loss.

Cut ensilage at optimum moisture content. At the time of ensiling, moisture content should be 65 to 75 percent. To reach this moisture content, wilt high moisture forage.

BMP 2: Divert silage seepage

Construct a low berm around the mouth of silage installation to allow soil infiltration of liquids. If poor drainage exists, divert seepage to the liquid manure storage facility. Should installation be below liquid manure storage facility, seepage may be drained to a suitable land application area or a small tank can be constructed below silage installation mouth for collecting liquid. When tank is full, pump into tank wagon or liquid manure storage facility, and apply to fields when soil and climatic conditions permit.

BMP 3: Roof the silage installation

Roofing the silage installation and diverting water from the roof by gutters and downspouts connected to a drain tile will provide the water quality control.

Problem 4: Flood water entering animal confinement area

BMP 1: Construct confinement area above the flood plain

Since this practice is expensive, this alternative should be considered when reconstructing a major portion of the confinement area. Various local, state and federal permits may be required when placing fill in a floodplain area.

BMP 2: Construct a dike around the confinement area

Sufficient manure storage facility within the diked area will be needed to store contaminated water. Expensive internal drainage systems involving pumps and flap gates may be required. Various local, state, and federal permits may be required before construction.

SITUATION B. FIELD APPLICATION OF MANURE

Problem 1: Animal waste runoff from fields having saturated soil conditions or ponded water for extended periods

BMP 1: Install a tile drainage system in these fields

A tile drainage system including a suitable outlet will reduce animal waste runoff. The soil mantle overlying tile lines can be effective in removing pollutants. Tile installation will lower water table, thus allowing manure spreading on fields where manure would otherwise run off.

BMP 2: Install adequate storage facilities that can store manure until soil conditions are favorable for spreading manure.

Problem 2: Manure from fields entering open water courses

BMP 1: Use grass filter strips

Animal wastes should not be spread adjacent to open water courses. Maintaining a 6 to 8 inch grass height adjacent to open water courses is desirable and will prevent manure runoff from entering a water course. Width of grass strip will vary according to slope, soils, and location.

BMP 2: Convert open ditches to closed systems where practical

Open ditches are prone to accidental manure contamination. Conversion to a closed system will reduce pollution as well as improving field farming operations.

BMP 3: Apply good manure application techniques

1. Install permanent manure-tight crossing over open water courses.

2. Set pipeline and manure guns at a proper distance to prevent spraying manure directly into a water course. The distance required will vary with conditions. The percentage of total solids, length of run from pump, and field slope will influence discharge pressure at nozzle.
3. Adjust manure gun position in the field to compensate for wind velocity and direction, so manure will not be blown into an open water course.
4. Should manure ponding or runoff occur while sprinkling, move manure gun to a new location.

SITUATION C. WATER COURSE AREAS

Problem 1: Sedimentation resulting from streambank erosion along a water course

BMP 1: Preventative maintenance

Remove snags, drift, or other obstructions within the channel before they cause streambank erosion. Leaning trees should be removed before they fall into the stream or water course. Gravel bars should be managed so they do not divert water against fragile streambanks. Oregon Department of Fish and Wildlife must be consulted in order to ensure that water courses are not unduly disrupted. U.S. Army Corps of Engineers and Oregon Division of State Lands' permits are required.

BMP 2: Protect eroding streambanks by structural and/or vegetative methods

Streambank shaping, rock-riprapping, and vegetative plantings may be a solution to the problem of water degradation. Planting vegetation re-establishes the riparian habitat needed for wildlife and fishery resources. Oregon Department of Fish and Wildlife must be consulted in order to ensure stream corridors are not disrupted. U.S. Army Corps of Engineers and Oregon Division of State Lands' permits are required.

Problem 2: Grazing animal along streams causing water pollution, bank destabilization and sedimentation.

BMP 1: Fence the streambank top

Constructing a barbed wire fence or electric fence on the streambank top will reduce water degradation. Water can be diverted through a pipe or ditch and pumped into a watering facility. An Oregon surface water rights will be required when diverting livestock water from a stream.

Fencing large areas can be expensive. Fences may be damaged or destroyed during flooding.

BMP 2: Construct a streambank entrance ramp to control animal access

Watering points can be provided by setting a fence two feet into the waterway for approximately ten feet along the stream. An entrance ramp should allow two animals to drink water without entering the stream. Ramps should be provided at all needed access points. The ramps can be constructed of concrete, rock and gravel, old railroad ties, surplus military landing mats, or similar materials. If constructed of concrete, ramp should be raised in the middle with small grooves running from side to side. This will retard manure from flowing directly into the stream.

No permit for water withdrawal should be needed. Oregon Department of Fish and Wildlife should be consulted to ensure stream corridor is not disrupted.

TABLE 20

USDA SOIL CONSERVATION SERVICE PRACTICES

SITUATION A. ANIMAL CONFINEMENT AREAS

Standards and Specifications Number	Name of Practice
313	Waste Storage Structure
359	Waste Treatment Lagoon
425	Waste Storage Pond
606	Subsurface Drain
342	Critical Area Planting
356	Dike
362	Diversion
462	Drainage Land Grading
382	Fencing
393	Filter Strip

SITUATION B. FIELD APPLICATION OF MANURE

633	Waste Utilization
312	Waste Management System
512	Pastureland and Hayland Planting
510	Pastureland and Hayland Management
606	Subsurface Drain
393	Filter Strip
587	Structure for Water Control
533	Pumping Plant for Water Control
412	Grassed Waterway or Outlet
607	Surface Drainage
362	Diversion
449	Irrigation Water Management
462	Drainage Land Grading

SITUATION C. WATER COURSE AREAS

580	Streambank Protection
584	Stream Channel Stabilization
472	Livestock Exclusion
516	Pipeline
614	Trough or Tank
326	Clearing and Snagging
382	Fencing
393	Filter Strip
612	Tree Planting

The following best management practices (BMPs) have no SCS standards and specifications. Tillamook County Soil and Water Conservation District will depend on private contractors or request SCS to develop standards and specifications.

Relocate Confinement Area

Guttering

Concrete Curbing

Roofing

Constructing Confinement Area Above the Floodplain

On-Site Sewage Disposal Systems

Implementation Statement

Purpose

The purpose of this statement is to implement a plan to identify and correct malfunctioning or inadequate on-site sewage disposal systems that are creating a health risk to the public waters of Tillamook Bay and its tributaries for water contact recreation and shellfishing. This is in accordance with the stated rules under Section 208, of Public Law 92-500 and as amended by Public Law 95-217, and the goals of National Shellfish Sanitation Program.

Implementation of the plan consists of two phases. An on-site investigation phase and a problem correction phase will be conducted for each problem area identified in Table 4-1 and Plates 4-1 to 4-6. Each problem area will be addressed individually with concurrent investigations and corrections for different areas occurring throughout the duration of the plan.

The Tillamook County Health Department will be the local management agency through operation of its On-Site Sewage Program. Technical assistance (a man-hour commitment) to the County in carrying out the program will be provided by the DEQ and Oregon State Health Division.

Authorities

The Department of Environmental Quality statutory authority to conduct pollution control efforts to restore and preserve the quality and the purity of the waters of the State is contained in ORS 468.035. Oregon Revised Statute 454.725 provides that the DEQ may enter into agreements with local units of government for the purpose of administering the duties of the Department in the On-Site Sewage Disposal Program.

The Tillamook County Health Department authorization to act as the agent of the DEQ in Tillamook County in conducting a On-Site Sewage Disposal Program is contained in the Memorandum of Agreement between Oregon Department of Environmental Quality and the County of Tillamook signed January 23, 1976 (see Appendix 4-2). A new Memorandum of Agreement (Appendix 4-3) is currently being negotiated with an effective date for the agreement expected on or before July 1, 1981. Since the County Health Department is contracted to carry out the State function, this amounts to a formal designation of that Health Department as the local management agency to carry out this Plan. No further action is necessary. In the event that a satisfactory agreement between the DEQ and County cannot be obtained and signed, the DEQ is prepared to administer this Plan within the resources of its On-Site Sewage Disposal Program.

The Oregon State Health Division statutory authority to conduct sanitary surveys is contained in OAR 34-010. The Health Division has the authority to adopt and enforce rules regarding the quality of water for human consumption pursuant to ORS 448.205 to 448.325, 448.990, ORS 624.010 to 624.120 and 624.310 to 624.440 and regarding the quality of water for public swimming places pursuant to ORS 431.110 and 448.215 and regarding shellfish sanitation ORS 622.180.

Tillamook County Health Department Responsibilities

- Be Tillamook County's Local Management Agency for implementation of the On-Site Sewage Disposal Section of the Tillamook Bay Drainage Basin Fecal Waste Management Plan.
- Provide public notification of a pending sanitary survey in a problem area identified in the Plan.
- Conduct on-site sanitary surveys as man-power is available, in priority one and two problem areas specified by the plan for the purposes of identifying malfunctioning or inadequate on-site sewage disposal systems that are contributing to the fecal pollution of Tillamook Bay and its tributaries (Item #24, Memorandum of Agreement between DEQ and the county of Tillamook, see Appendix 4-3).
- Institute corrective actions (as per adopted On-Site Sewage Disposal Rules) on identified malfunctioning or inadequate on-site sewage disposal systems that are contributing to the fecal pollution of Tillamook Bay and its tributaries.
- Annually prepare a brief report describing the progress in implementing this Plan.
- Have representation at the meetings of agencies that are convened to determine the satisfactory progress in implementation of this Plan.

Oregon Department of Environmental Quality Responsibilities

- Be the State Management Agency for implementation of the On-Site Sewage Disposal Section of the Tillamook Bay Drainage Basin Fecal Waste Management Plan.
- Assist the Tillamook County Health Department in conducting on-site sanitary surveys in Priority 1 and 2 problem areas specified by this Plan (Item #24, Memorandum of Agreement between DEQ and the county of Tillamook, see Appendix 4-3).
- Assist the Tillamook County Health Department in determining corrective actions on identified malfunctioning or inadequate on-site sewage disposal systems that are contributing to the fecal pollution of Tillamook Bay and its tributaries. This assistance will be in accordance

with existing procedures of the DEQ On-Site Sewage Disposal Program.

- Annually review the report submitted by the local management agency and recertify the Plan.
- Have representation at the meetings of agencies that are convened to determine the satisfactory progress in the implementation of this Plan.

Oregon State Health Division Responsibilities

- Assist the Tillamook County Health Department in conducting on-site sanitary surveys in Priority 1 and 2 problem areas specified by this Plan.
- Have representation at the meetings of agencies that are convened to determine the satisfactory progress in the implementation of this Plan.
- Provide suggested improvements in the Plan to the Local and State Management Agencies of this Plan.
- Take appropriate actions to protect the public health in consumption of the surface waters and public swimming in the waters deemed contaminated after a Sanitary Survey has been completed in one or more of the problem areas identified in this Plan.

Staff and Financial Resources to Carry Out the Plan

State Resources

Department of Environmental Quality

Staff and financial resources available to implement this plan will be those already established. No additional personnel or funding will be obtained. Staff available to assist the county with on-site evaluations are those in place at the Regional Branch Office in Tillamook, Northwest Regional Office in Portland and the On-Site Sewage Program Staff also located in Portland.

Funding for State staff is provided through a fees schedule authorized in OAR 340-71-140 and the State general fund monies. Technical assistance activities is supported by general fund monies. Total cost to the Department would depend upon the number of man-hours expended and would vary according to the sanitary survey needs. See Costs of Controls Section for survey needs.

Oregon State Health Division

Staff and financial resources available to assist in implementation of this Plan will be those already in place. No additional funding or staff will be required. Staff available to assist in the on-site evaluations is the one person assigned to the Oregon Shellfish Sanitation Program.

This person is located in Portland. Funding for this person is provided through a fees schedule and State General Fund monies. The fees schedule and disposition of the fees is authorized in ORS 622.080 and 622.090. Total cost to the Division will depend upon the number of man-hours expended and would vary according to sanitary survey needs. See Cost of Controls Section for survey needs. Health Division personnel would not be involved in corrective action procedures for those identified inadequate or malfunctioning on-site sewage systems.

County Resources

Tillamook County Health Department

Staff and financial resources available to the County in implementation of this Plan will be those already established to conduct the County's On-Site Sewage Program. Funding for these personnel, located in Tillamook, is provided through the County's General Fund. The fund receives the proceeds from a fee schedule established through the Memorandum of Agreement (under ORS 454.725). The fee schedule is adopted in accordance with ORS 454.745. No fees will be collected for the on-site inspections under this Plan. However, repair permit fees will be collected for those systems needing repair/or replacement.

Evaluation of Plan Implementation

A meeting will be held in June of each year to evaluate the progress of implementing the Plan and to provide the necessary information to recertify the Plan.

The meeting will consist of representatives from:

Tillamook County Health Department

Department of Environmental Quality

Oregon State Health Division

The goal of the meeting will be to determine if satisfactory progress has been made in implementing the Plan. This determination will be based on the Local Management Agency demonstrating progress in identifying and correcting on-site sewage problems as outlined in the Plan. In evaluating progress, agency representatives will recognize man-power limitations when determining satisfactory progress. Data from the DEQ Ambient Water Quality Monitoring Program and any special water sampling efforts in the basin, will also be reviewed in this determination of progress.

Recertification Process of the Plan
for On-Site Sewage Disposal Systems

1. Annually in June, the Local Management Agency, the Tillamook County Health Department, will prepare a brief evaluation report describing the progress of implementing the On-Site Sewage Disposal portion of the Fecal Waste Management Plan.

The report should include, but not be limited to:

- Identification of priority problem areas surveyed.
 - The number of systems inspected.
 - The number of systems repaired or replaced.
 - Difficulties in maintaining the Plan schedule including work loads and man-power commitments.
 - The next year's schedule of activities for continuing implementation of the Plan.
 - Recommended changes in the Plan.
2. The Local Management Agency will submit the evaluation report to the DEQ by July 1 of the recertification year.
 3. The evaluation report will be analyzed by the On-Site Sewage Systems Section and Water Quality Planning Section of the DEQ.
 4. DEQ will prepare a report on the management agency, utilizing the evaluation report, and present it to the DEQ Water Policy Advisory Committee for their discussion and comment.
 5. DEQ will prepare a recertification report for applicable Environmental Quality Commission action.
 6. DEQ will transmit recertification materials to the Governor.
 7. The Governor will submit recertification letter to the Environmental Protection Agency.

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5/8/81

STATEWIDE AGRICULTURAL FRAMEWORK PLAN
FOR
WATER QUALITY MANAGEMENT IN OREGON

I INTRODUCTION

This plan describes how the state will, through the Soil and Water Conservation Commission coordinate the development and implementation of local and state agriculture nonpoint source pollution control programs to protect vital land and water resources. The Statewide Framework is based upon programs where program elements addressing problem identification, conservation practices (Best Management Practices), information and education and implementation are developed and implemented locally.

This was developed as part of the state's overall nonpoint source planning effort and establishes the framework into which past, present and future 208 planning efforts will be integrated.

The Soil and Water Conservation Commission will utilize this framework plan, its procedures, policies and management structures to successfully plan and implement a statewide agricultural nonpoint source water quality management program.

II BACKGROUND

Development of the Statewide Agricultural Framework Plan began during the initial Section 208 nonpoint source water quality planning period (1976-1978). The Department of Environmental Quality (DEQ), with the assistance of the Soil and Water Conservation Commission (SWCC), appointed an Agricultural Subcommittee consisting of individuals from the DEQ's Policy Advisory Committee and various agricultural commodity groups and organizations. This subcommittee spent 18 months reviewing and evaluating the different agriculture plan elements and likely management agencies. This work established an overall program direction by identifying key plan elements and management agencies.

The subcommittee's final report and recommendations were sent to the full Policy Advisory Committee (PAC) late in 1978. The PAC reviewed the subcommittee's work and then made its recommendations on the agricultural program to DEQ. The PAC recommendations were accepted by DEQ and the process was initiated to finalize the plan and the management agency designation. The Governor, in January 1979, formally designated the SWCC as the Statewide Agricultural Nonpoint Source Water Quality Management Agency.

Subsequent to this designation, the DEQ and SWCC developed and signed two interagency agreements. One agreement covered the transfer of certain agricultural nonpoint source planning responsibilities from DEQ to SWCC. The other agreement covered the agriculture program implementation roles and responsibilities of DEQ and SWCC. When the Governor made the designation and DEQ/SWCC entered into their

agreements, the primary program element being finalized was that of program management. Since that point in time, the SWCC has had the responsibility to take the agricultural subcommittee and PAC recommendations and develop the final Statewide Agricultural Framework Plan. This document represents that effort.

III PROGRAM SCOPE

The scope of this framework plan is limited to privately-owned agricultural lands in the State of Oregon. It is directed specifically at those agricultural management activities which impact water quality through nonpoint source pollution.

The program is based upon blending currently available federal, state and local programs into a coordinated effort to achieve water quality protection goals through installation of appropriate state-of-the-art conservation practices. The intended purpose of this approach is to obtain maximum effectiveness of ongoing programs and then to determine where and what kind of new or expanded effort is needed.

The program is a mixture of voluntary and regulatory efforts based on existing programs, laws and regulations. The voluntary effort is dependent upon adequate incentives and informed land owners/managers. This effort will require strong cost-share, technical assistance and information and education programs. Its implementation will require dedicated and intelligent leadership at the local level backed up by strong state direction and coordination. The need for new or strengthened laws, regulations or voluntary programs will be a primary consideration of ongoing planning and assessment efforts.

Priorities will be established based on identifiable water quality problems and benefits.

The DEQ as the designated lead management agency for the State of Oregon, is responsible for overall coordination of the state's nonpoint source water quality management plan. This includes coordinating the planning and implementation of urban runoff, agriculture, groundwater and other nonpoint source water pollution elements. The SWCC, as the statewide agricultural nonpoint source water quality management agency, is responsible for coordinating agriculture with other nonpoint source areas. The locally designated agricultural management agencies are responsible for coordinating all the parts of that local agriculture plan. They can also, within the guiding policies established by DEQ and SWCC, coordinate the implementation of their plan element with the appropriate aspects of other nonpoint source water quality plans like forestry, agriculture, construction, groundwater or urban runoff. For example, urban areas are included within the boundaries of soil and water conservation districts (SWCDs). District boards have been urged to enter agreements with city, county and areawide governments to integrate land use and conservation planning programs. This structure can provide adequate coordination between agricultural and urban nonpoint source water quality efforts.

IV PROGRAM POLICIES

The key policies of this plan have been designed to increase the participation of land owners/managers and to improve the effectiveness of programs designed to improve water quality.

- POLICY NO. 1: Agricultural programs for nonpoint source water quality management will be primarily preventive and designed to obtain the maximum installation of appropriate and effective conservation practices on site-specific situations to control nonpoint source pollution through voluntary cooperation of the operators.
- POLICY NO. 2: Agricultural programs will be voluntary for as long as this approach achieves satisfactory progress towards protecting water quality.
- POLICY NO. 3: The voluntary programs will be continually monitored for effectiveness, and where it becomes necessary, regulatory responses will be developed and recommended for adoption by the appropriate local management agency based upon the locally approved criteria.
- POLICY NO. 4: It will be the policy of the SWCC to identify the appropriate SWCD as the local planning and management agency unless otherwise required by local action.
- POLICY NO. 5: Current regulatory programs which are being used to control the use of chemicals and other serious bacteriological contaminants will be continued and remain in effect.
- POLICY NO. 6: Agricultural nonpoint source management program will be carried out at the local level. SWCDs, irrigation and drainage districts, ASC county committees and county governments each have an important role in local conservation efforts.
- POLICY NO. 7: As additional policies are developed they will be reviewed at the local level by SWCD boards and other interested and affected local groups. They will then be presented to the SWCC for possible adoption and then forwarded to DEQ for review and inclusion in the statewide framework plan.

Consultation and review at all levels will be carried out simultaneously so that all responsible units of government are aware of the progress in policy development and adoption.

V PROGRAM PLANNING ELEMENTS

A. INTRODUCTION

The framework plan is divided into two very distinctive program areas of planning and implementation. Each of these is described in detail in the next two sections.

B. PLANNING PROGRAM

The planning program has four components; problem assessment, problem prioritization, identification of best management practices and special planning studies. The approach of the planning program is to assess instream water quality and land quality problems, establish critical area priorities and identify the appropriate management practices to address the identified problems.

1. ASSESSMENT

Assessment of instream water quality will primarily be the responsibility of the Department of Environmental Quality. Water quality monitoring is currently carried out by a number of agencies for many different purposes and for several parameters. The DEQ compiles and evaluates available data for various waterways and stream segments and is responsible for preparation of an annual report (the 305-B assessment) which identifies water quality problem areas and sources of water pollution. This instream water quality assessment will be correlated with known areas of possible agricultural nonpoint source runoff problems to determine relationships between water quality problem areas with areas of known high erosion, concentrated animal populations, heavy irrigation use and other potential sources of agricultural pollutants. Sources of information for this correlation will include Soil Conservation Service land inventory and monitoring; Resource Conservation Act assessments; 208 project reports; research data and reports; Soil and Water Conservation District Natural Resource Conservation Programs; annual reports; annual work plans; Irrigation district reports and other available sources of information.

The Assessment of Oregon's Water Quality completed by DEQ in November 1980 indicates that agricultural activities are not considered to be major contributors to the state's water pollution problems when compared to municipal, industrial and septic tank sources. There are, however, some significant problems which are attributed to agriculture and need to be addressed. These problem areas are summarized below:

PROBLEM

BASIN

Very high bacteria problems associated with animal waste

Tillamook, part of the Willamette Lower Malheur, Owyhee and Klamath

Irrigation Return flows

Malheur, Owyhee, Klamath, Bear Creek

(cont.)

PROBLEMBASIN

Sedimentation

Crooked, Malheur, John Day

Water withdrawals

Umpqua, Central Rogue, Crooked,
Umatilla

Nationally, the Environmental Protection Agency has identified and ranked five major agriculture pollution categories. These are:

- TOXIC CHEMICALS - which may cause water quality degradation.
- BACTERIOLOGICAL - primarily due to animal wastes.
- NUTRIENTS - such as nitrates, phosphates, etc.
- SALTS OR ALKALI - primarily leached from the soil and carried by irrigation return flows.
- SEDIMENT - soil from erosion of fields, streambanks and other sources which may carry with it any of the four pollutants identified above.

In the State of Oregon there are a number of existing programs which address one or more of these agriculture pollution categories either through the identification of water quality problems or through the implementation of regulatory programs.

In the area of toxic chemicals, the Department of Environmental Quality has the responsibility to conduct the state's water quality monitoring program. The DEQ monitoring program for chemicals is based upon a special study approach wherein the monitoring effort is undertaken only when a chemical spill occurs or where specific misuse of chemicals is suspected.

The use of pesticides is currently regulated by the State Department of Agriculture. That program will be continued and is subject to review by both EPA and the Federal Food and Drug Administration. We currently do not anticipate any significant change in this program or its administration.

In addition, the Oregon State University Extension Service annually develops and publishes pesticide recommendations regarding insects, plant disease and weed control for crops produced in Oregon. In cooperation with the State Department of Agriculture, which certifies and/or licenses private, commercial and public applicators of pesticides, the Extension Service also conducts pesticide training programs for those persons needing to be certified or licensed.

Bacteriological water quality problems usually result from the introduction of man and/or animal fecal waste into a water body. The DEQ ambient water quality program routinely monitors for fecal bacteria contamination and includes this parameter in its annual water quality assessment report.

Bacteriological problems which are caused by confined animal feeding operations are presently subject to regulation by the DEQ. There is currently a 208 project underway, through the SWCC, which is reviewing the problem, the current control program and possible ways to improve it. The project is also studying the effectiveness of known Best Management Practices for animal waste management and the economics of the use of these various BMPs. As the results of this study become available they will be included in this Framework Plan.

Nutrients reach the stream primarily from the leaching of fertilizers and animal waste. Irrigated agriculture is identified as a source of nitrogen and phosphorous pollutants in the waterways. Nutrient enrichment is a particular problem in lakes and slow-flowing or nearly stagnant streams due to the resultant growth of algae and water weeds. Numerous lakes and other water bodies are seriously impacted by excessive biological growth at least partially attributed to high nutrient levels.

DEQ's November 1980 Assessment of Oregon's Water Quality summarizes lake water quality data for the state. The assessment report identified some twenty-six lakes suffering from some form of water pollution and several lakes impacted by excessive algae and weed growth. This includes Blue Lake, Fern Ridge Reservoir, Devils Lake, Klamath Lake, Bybee Lake, Cullaby Lake and Smith Lake. Several Clean Lake projects are now underway to study problem lakes and develop restoration plans.

Salt or alkali problems are generally nonexistent or not serious in most Oregon waterways. The Klamath, Malheur and other Southeastern Oregon Basins do have some identified problem areas. These are primarily associated with irrigation return flows and can be alleviated by the adoption of good irrigation water management practices.

Sediment is both the lowest ranked and most widely-spread pollutant considered of national significance. Every Oregon waterway suffers from sediment pollution during portions of the year, with the heaviest impact occurring during high flow periods. Very few streams have excessive sediment loads during low flow periods and such occasions are usually associated with short intense storm activity which is fairly common in much of the state. Some excess sediment load is caused by poor irrigation practices resulting in excessive runoff to receiving streams. A significant portion of sediment reaching Oregon streams is from stream banks.

Erosion is a serious problem from both a water and land quality perspective. Agriculture is dependent upon a relatively shallow layer of topsoil for the growth of crops and forage. Topsoil depths vary from virtually zero to, at most, a few feet. Much of the topsoil in our dryland wheat producing area is from six to twelve inches in depth and is already seriously eroded. Ridge tops and gully areas illustrate the problem from a productivity standpoint most dramatically. Programs for cropland erosion control have dual benefits of maintaining the productivity of the soil and preventing water quality degradation.

As previously noted, sediment eroded from fields, range and pasturelands and streambanks carry with it other pollutants such as chemicals, nutrients, bacteria and salts. Practices which are effective in preventing erosion also prevent these other pollutants from reaching the stream.

2. PROGRAM PRIORITIES

Both the DEQ and SWCC will utilize in their priority setting procedures the information generated by Local 208 planning studies as well as local management agencies designated to implement agriculture NPS water quality plans. It will be the responsibility of SWCC to see that the local agriculture management agencies develop annual problem priority lists. The SWCC will then utilize these lists in the development of their statewide priorities. DEQ will utilize the water quality data and information developed in the 208 planning studies and that provided annually by the local management agencies when the statewide water quality priorities are established.

The future agricultural nonpoint source program direction will be based upon identified critical water quality problems and upon identified critical agricultural land or operation management problems within the state. The DEQ will have the responsibility to annually establish the state's critical water quality problem priorities. SWCC will have the responsibility to annually establish the state's critical agricultural land or operation management problem priorities on private agriculture lands. The DEQ and SWCC will then meet annually to integrate these two different but often related priority lists in order to establish the mutually agreed upon priorities towards which to direct both the planning and implementation components of the agriculture NPS plan.

The annual problem priorities will be established using the identified information and data collection sources: DEQ, through its ambient water quality monitoring program; SWCC; local management agencies and other local, state and federal agencies who have

collected pertinent water quality data. These priorities will be finalized through a review of water quality index trends and special water quality monitoring efforts.

The annual agricultural land and operation management practice priorities will be established using information and data collected by SWCC from special 208 studies, soil and water conservation district annual reports, local management agencies, special ACP studies, Rural Clear Water Program studies, Soil Conservation Service resource conservation reports and any additional sources of current land or operation management information. It will be the responsibility of the SWCC to review these reports and other available information which will then provide direction to future agricultural nonpoint source water quality projects and activities. As it becomes apparent from review of the data that a problem situation exists within a commodity or geographic area, a corrective or alternative response will be developed; this will be accomplished in cooperation with appropriate agencies and advisory committees.

As corrective actions are initiated, the SWCC will maintain a continuous review of each to determine relative value and importance. Priorities will be established as necessary in order to obtain optimum effect on those situations which either have (A) the most serious impact on water quality; or (B) those with a lesser impact which may be subject to more immediate correction. The goal of obtaining the greatest value of return within available resources will be a constant measuring criteria.

The DEQ and SWCC will then meet annually to review and evaluate the information each has gathered and review the priorities each has established in their individual areas of responsibility in order to establish the mutually acceptable joint priority list of critical areas.

Both the DEQ and SWCC will utilize in their priority setting procedures the information generated by Local 208 planning studies as well as local management agencies designated to implement agriculture NPS water quality plans. It will be the responsibility of SWCC to see that the local agriculture management agencies develop annual problem priority lists. The SWCC will then utilize these lists in the development of their statewide priorities. DEQ will utilize the water quality data and information developed in the 208 planning studies and that provided annually by the local management agencies when the statewide water quality priorities are established.

3. BEST MANAGEMENT PRACTICES

The Agricultural NPS Water Quality Management Program is based upon the implementation of site specific management practices.

These practices are locally designed, selected and approved for use in specific areas to prevent or correct agricultural NPS water quality problems or specifically identified agricultural land and operation problems impacting water quality.

Under the Section 208 Water Quality NPS planning program the term "Best Management Practices" has been applied to these conservation practices. A more appropriate description might be site specific management practices or state-of-the-art management practices. For the purpose of the agriculture framework plan these site specific conservation practices utilized by a landowner/operator to protect water quality will be called Best Management Practices (BMPs).

The important elements to be addressed are: Identification and selection; review and approval; certification application responsibility; and finally, specific sites of application.

a. IDENTIFICATION AND SELECTION

Under the agricultural framework plan, BMPs will be identified through one of four ways.

1. Local Planning Studies

This is the primary way in which BMPs will be identified. In this case, a specific planning project like a 208 study (i.e. Tillamook, Malheur, Dryland Wheat counties) is initiated and a local committee drawing upon the experience and technical expertise of those people working in that local area will identify and select the local BMPs.

2. Local Management Agencies

The locally designated agricultural management agency can also identify and select BMPs annually during the update and recertification of the local list.

3. Special Variance

Once a local 208 plan is selected and the list of locally identified BMPs approved by the state, they remain static until the annual review and update period when new BMPs can be added. If, however, a new technique or technology comes on line and the local management agency needs immediate state approval for that practice to make it eligible for available federal, state or local cost-sharing, it can be submitted through a special variance process whereby approval or denial is obtained in a two week period.

4. Statewide Special Planning Studies

BMPs can also be identified through statewide special planning studies which are initiated to address statewide agricultural problems. At the present time, only one such study is underway; this is the confined animal waste study. The intent of this project is to evaluate the already existing statewide confined animal waste program and identify a comprehensive list of BMPs which will be applied on site specific basis through the management program identified in the project. The SWCC does not anticipate that many, if any, other statewide projects of this nature will be initiated in the future.

b. REVIEW AND APPROVAL

Once the BMPs have been identified and selected as described above, they will be submitted to SWCC for initiation of the state review and approval process. If a practice in an approved 208 plan is to be eligible for cost-sharing, it must be approved by the state. (If the BMPs have been identified and selected by SWCC directly through a project, e.g. confined animal feeding operation study, the proposed BMPs will be forwarded directly to DEQ for review and approval.) The state review and approval process consists of two steps; first, the proposed BMPs are submitted in draft to the SWCC who reviews them and submits them to DEQ for review. DEQ reviews the BMPs with the Policy Advisory Committee and with inhouse staff. Responses are then sent back to SWCC. DEQ may, depending on the technical complexity of the BMPs establish a technical committee to provide specific technical expertise during review of the proposed BMPs.

The first step is therefore a review of the draft BMP's with SWCC responsible for coordinating the review and returning comments back to the local planning agency.

After responding to comments received in the initial review cycle, the second step is submittal of the final BMP list by the local planning agency for final review and approval. SWCC will receive the list from the local agency and be responsible for coordinating final DEQ review and approval. After the local planning agency has submitted its final BMP list, SWCC will review the practices and submit them with their recommendations to DEQ for review and approval. DEQ will again have the PAC and inhouse staff review the final BMPs and make their recommendations. Based on SWCC, PAC, and staff recommendations, DEQ will take the appropriate action.

After the BMPs have been approved, the local management agency can update or add new BMPs through the annual evaluation and recertification process. Changes in the BMPs

would be reviewed and approved as part of the annual evaluation report submitted by the local management agency. SWCC will have the lead responsibility to coordinate review and approval of this report with DEQ/SWCC annual recertification activities. Variance BMPs will be reviewed and either approved or denied by both SWCC and DEQ within the two week period, with SWCC taking the lead responsibility to coordinate the variance process.

c. ADOPTION AND CERTIFICATION

Once BMPs have been approved, it is the responsibility of DEQ to submit them to the Environmental Quality Commission (EQC) for adoption into the Statewide Water Quality Management Plan (SWQMP). DEQ will prepare and submit a SWQMP recertification report item annually to the EQC containing any BMP changes.

Following any EQC adoption actions, the BMPs will promptly be submitted to the Governor for certification and transmittal to the U.S. Environmental Protection Agency.

d. APPLICATION RESPONSIBILITY AND SITE SELECTION

BMPs identified and selected in a local planning study will be utilized to address appropriate problems in that local area on a site specific basis. The particular technique utilized to implement the BMPs (i.e. voluntary, regulatory, cost sharing, etc.) will also be identified and described locally and will fit within the general policies of this Agricultural Framework Plan. The actual on-farm selection and application of BMPs is recognized as a very site specific activity. Operator preference, farmland, cropping, soils, geography and many other factors change from farm to farm. Two neighboring farms may have very different BMP needs.

The need for very site specific BMP selection and application has been recognized in all agricultural nonpoint source special studies to date. It is anticipated that this approach will be maintained in future studies.

BMPs identified in a special local study can also be recommended in places outside of that study area, but only as guidelines; not as specific requirements.

"BMPs identified through a statewide special study (i.e. Confined Animal Feeding Operation Study) will be utilized as described in the plan developed for that study."

4. STATE BMP LIST

It is the responsibility of SWCC to maintain an up-to-date comprehensive list of BMPs approved for use in Oregon. At any given

time, the statewide list will represent a collection of the individual local project BMPs, local management agency updates, variances and statewide practices. BMPs on the state list may be recommended as guideline management practices throughout the state.

5. SPECIAL STUDIES

A major purpose of this plan is to provide the overall agricultural NPS program direction and a framework into which completed special planning efforts can be integrated. Therefore, the framework plan is based upon accumulated planning efforts which have been carried out or are under way. It will be continuously updated as new planning efforts which have significance to the plan are completed.

Plans which have been completed and will be incorporated into this framework plan include the following nonpoint source planning efforts: (Management agency noted in parenthesis)

- a. Sediment Reduction Project in the Five North Central Oregon Dryland Wheat Counties (SWCC)
- b. Statewide Stream Corridor Management Project (SWCC)
- c. Oregon's Statewide Assessment of Nonpoint Source Problems -Phase 1 and 2 (DEQ)
- d. Malheur County Water Quality Management Plan (SWCC)
- e. Rogue Valley COG Bear Creek Irrigation Study (DEQ/RVCOG)

The following 208 plans are currently under way and will be incorporated as they are completed:

- a. Tillamook Bay Bacteria Study (DEQ)
- b. Tillamook Bay Nonpoint Source Management Plan (SWCC)
- c. Mid-Willamette Valley Foothills Erosion Project (SWCC)
- d. North Central Oregon Wheat Growing Region BMP Evaluation and Demonstration Project (SWCC)
- e. Rogue Valley Water Quality Management Plan - Agricultural Element (RVCOG)
- f. Confined Animal Feeding Operations Waste Management Program (SWCC)

SEDIMENT REDUCTION PROJECT

This project covered the dryland wheat area of North central Oregon which includes Gilliam, Morrow, Sherman, Umatilla and Wasco counties. The study was initiated to identify the nonpoint source pollution problems in each county (water and wind erosion), develop Best Management Practices to treat the problems, and develop an implementation program. The project began in November 1976, through an interagency agreement between the DEQ and the State. The SWCC placed a staff person in the study area who organized local (county) water quality committees to develop an individual agricultural NPS plan for each county. The project was successfully completed in the fall of 1978.

STATEWIDE STREAM CORRIDOR MANAGEMENT PROJECT

This project addressed the problem of excessive streambank erosion problems on a statewide basis. It focused on developing general Best Management Practices for controlling streambank problems; designing and carrying out three stream corridor demonstration projects and developing a stream corridor preventive management program. The work began in November 1976, through an interagency agreement between the DEQ and SWCC. The final project report identifies and displays on maps excessive streambank erosion problems, identifies general Best Management Practices, describes the status of work in the three demonstration projects and reviews the work done to develop a statewide stream corridor management policy.

OREGON'S STATEWIDE ASSESSMENT OF NONPOINT SOURCE PROBLEMS PHASE I & II

This project was accomplished directly by DEQ with advice and assistance from an interagency technical task force. The Assessment had two-phases: first, to prepare a statewide inventory and assessment of nonpoint source pollution problems; and second, to develop a methodology to guide the application of Best Management Practices and provide the methodology for five small drainage basins. The statewide assessment includes eight maps depicting pollution problems in streams along with a narrative report. Pollution problems were identified by using the perceptions of agency personnel and the public through questionnaires, workshops and public meetings. The results of the statewide assessment are being used to identify and prioritize areas needing detailed special studies. These studies will be undertaken with future 208 funds and will identify problem causes and develop Best Management Practices and implementation programs.

The second phase, a detailed methodology for BMP application, was completed on two drainage basins.

MALHEUR COUNTY WATER QUALITY MANAGEMENT PLAN

Malheur County received a 208 grant in March, 1979, to develop a water quality management plan for the county with particular emphasis on the quality of irrigation return water. The original grant provided funding

for the first year of a two year study. Second year funding was applied for and received from the following 208 fiscal allocation.

The county has, during the past two years, worked to develop a nonpoint source plan based on extensive water quality monitoring of the local rivers, streams, irrigation canals and drainage ditches. It identified Best Management Practices and developed a local implementation plan.

ROGUE VALLEY COG BEAR CREEK IRRIGATION STUDY

This agricultural project deals with irrigation return flows in the Bear Creek drainage basin. Work on this project began under the Rogue Valley Council of Governments (RVCOG) areawide 208 program in 1975. The RVCOG requested that the DEQ fund completion of the study with state 208 grant funds. DEQ and RVCOG shared responsibility for completion of this project. The commitments include the identification of irrigation return flow problems, development of Best Management Practices to treat the problems, development of an implementation program and the designation of management agencies.

The final Agriculture plan was received in the fall of 1978; it was approved and now is an adopted part of the Statewide Water Quality Management Plan.

The RVCOG has continued to apply for and receive subsequent 208 grants to provide funds to technical and informational support for implementation.

TILLAMOOK BAY BACTERIA STUDY

The U.S. FDA recently closed Tillamook Bay shellfish beds because bacteria levels rose above standards. There was much discussion on the suspected cause(s) of the problem ranging from the dairy industry to municipal sewage plants, septic tanks and recreational areas. The statewide NPS Assessment also identified Tillamook Bay as a critical problem area.

This program, in conjunction with the Tillamook Bay NPS Management Program, was intended to establish a comprehensive strategy for the protection of Tillamook Bay's shellfish resource. ODEQ managed this portion of the study which inventoried point sources and septic tank problem areas, designed and conducted a water quality sampling program, analyzed the data to determine the location, nature and extent of the problems, developed a strategy to protect the shellfish from bacteria and developed and adopted necessary rules, standards and BMPs to implement the strategy.

TILLAMOOK BAY NONPOINT SOURCE MANAGEMENT PLAN

Erosion from burned-over forests, roads, streambanks and agricultural lands has caused accelerated sedimentation of the Tillamook Bay and estuary. The DEQ NPS Assessment confirmed the critical water quality problems associated with erosion and sediment in Tillamook Bay. More recently, bacteria levels of the bay waters were identified as exceeding federal standards causing

temporary closure of oyster harvesting and withdrawal of FDA's endorsement of Oregon's shellfish sanitation program. Dairy farms are suspected contributors to the bacteria problem in this area.

The Tillamook Soil and Water Conservation District study focused on non-point sources of pollution including erosion, sediment and waste from dairy operations. It culminated in the development of a strategy to deal with these nonpoint source pollutants and the adoption of appropriate control programs and BMPs associated with identified water quality problems. The Tillamook SWCD has established a dairy waste management and erosion sediment control program as the NPS component of a comprehensive water quality management strategy for protection of the waters of the Tillamook Drainage Basin. The effort resulted in (1) maps and overlays depicting ownership, soils, land use, potential problem areas, location and size of dairy operations, flood plains and hazard areas; (2) a publication containing generalized BMPs and identifying alternative BMPs that may require additional study and analysis before adoption; (3) an adopted listing of approved BMPs; (4) an adopted SWCD program for installation and maintenance of BMPs; and (5) estimates of technical and financial assistance needs for an implementation program.

MID-WILLAMETTE VALLEY FOOTHILLS EROSION STUDY (MARION COUNTY)

The Mid-Willamette Valley foothills are characterized by moderate to steep slopes, with many fields having long slopes which are unbroken by natural water courses or other diversions. For years, many of these fields have been seeded to perennial grasses for production of grass seed; turf grasses have maintained an excellent erosion control cover. Restrictions on field burning and the economic pressures of a fluctuating grass seed market may cause farmers to plow up grass seed fields and plant small grain or row crops. This may accelerate water erosion problems, which would cause greater sediment loading in valley streams, as well as carrying nutrients, organic matter and pesticide residues to the streams.

This "integrated" media project is intended to establish an erosion and sediment control program which will protect the identified beneficial uses of the land and water in the Willamette Valley, particularly from erosion associated with potential changes in agricultural practices. The program will develop maps and overlays for erosion hazard areas which will depict soil survey information, present land and crop use, slope, slope length and other pertinent data in the study area.

Feasible grass field crop alternatives will be identified along with appropriate BMPs for the alternative crop and field situations. These BMPs will be adopted by the Marion SWCD Board and be incorporated into the district program. Finally, an implementation program for installation and maintenance of BMPs will be adopted by the SWCD, including recommended priority use of ACP and other cost-share or financial incentive and technical assistance programs.

NORTH CENTRAL OREGON WHEAT GROWING REGION
BMP EVALUATION AND DEMONSTRATION PROJECT

The North central Oregon wheat counties (Wasco, Sherman, Gilliam, Morrow and Umatilla) have adopted and are initiating implementation of a 208 agricultural water quality management plan based on the completion of a 208 funded study. The study was conducted by the five county soil and water conservation districts, with technical and policy assistance from the state Soil and Water Conservation Commission. The management plan for each county identifies high erosion areas and streams where sedimentation impairs beneficial uses of water or violates state water quality standards. Each district established priority watersheds for implementation of Best Management Practices (BMPs).

The Best Management Practices for the five county area have not been evaluated or quantified for effectiveness in sediment reduction to improve water quality in North central Oregon. Consequently, landowners and operators are reluctant to install the BMPs unless the beneficial effects to water quality and, in some cases, improved crop yield can be demonstrated under local conditions. The evaluation and demonstration of BMPs in the region is necessary to demonstrate the beneficial effects to water quality in priority problem areas.

The project will demonstrate the effectiveness of selected BMPs such as level terraces, graded terraces with grassed waterways, stubble mulching, rough tillage and combinations of these and other BMPs to solve water pollution problems. The results will demonstrate and document the effectiveness, benefits and deterrents of BMPs when applied to site specific situations. Those persons who are uncertain about the benefits of BMPs will be more inclined to apply them when it is demonstrated that the costs and efforts required will result in improving water quality and that their farms will be in conformance with the local water quality management plans.

ROGUE VALLEY COG WATER QUALITY MANAGEMENT PLAN
AGRICULTURAL ELEMENT

The RVCOG has continued an agriculture effort following its completion of the initial agriculture NPS plan. The project consists of two parts; one providing technical assistance to the development of farm plans; and the other an information and education effort.

Numerous other related planning efforts have been completed recently and will be keyed into the state program. They include:

1. Oregon's Natural Resource Conservation Commitment developed jointly by the Oregon Association of Conservation Districts, Oregon Soil and Water Conservation Commission and the Oregon State Office of the USDA-Soil Conservation Service.
2. Natural Resource Conservation Programs adopted for each county by Oregon's 47 SWCDs. These long range plans identify the principal conservation problems in each county and include many which have water quality aspects to them.

3. The SCS is undergoing a continuous planning and evaluation effort as part of the national Resource Conservation Act (RCA). They are carrying on an extensive inventory and monitoring program to determine where conservation activities are succeeding and where additional effort is needed. Between now and 1984, when the next national review and report is due, they will be making continuous updates and evaluations. These will also be keyed into the state program. Planning by other agencies and local jurisdictions which may provide direction will be reviewed and used as appropriate.

VI PROGRAM IMPLEMENTATION ELEMENTS

A. INTRODUCTION

Implementation of the Statewide Agricultural Framework Plan depends on sound interagency cooperation and local management. It incorporates four major elements: existing agency programs, implementation agreements, available funding resources and present water quality management implementation plans.

The approach of the implementation program is to fully utilize existing and potential resources in a coordinated effort to achieve water quality protection goals and objectives. It will focus on installation of appropriate conservation practices in identified priority areas through a voluntary compliance program with local landowners/managers.

Understanding that each agricultural operation is individually unique, a state-of-the-art will be required matching those conservation practices that are site-specifically suited to, or necessary in, each individual situation. Local management is therefore necessary to insure proper and appropriate implementation of water quality management plans.

"The implementation of the local BMPs will be according to the implementation program developed locally and the voluntary and regulatory components adopted within that local plan."

B. AGENCY PROGRAMS

Several agencies have programs which currently implement soil and water conservation practices on the land. Three principal agencies of the U.S. Department of Agriculture are the Soil Conservation Service (SCS), Agricultural Stabilization and Conservation Service (ASCS), and the Extension Service, which functions at all levels of government. Other USDA agencies with programs which directly affect conservation activities are the S.E.A. Agricultural Research and Farmers Home Administration.

Oregon state agencies include the Soil and Water Conservation Commission, Department of Environmental Quality, Water Resources Department and the Department of Agriculture.

The management of programs affecting landowners in such concerns as irrigation water management and erosion control will be kept at the local level. SWCD's, irrigation and drainage districts, ASC county committees and county governments each have an important role in local conservation efforts.

SWCDs establish priorities for conservation assistance to local USDA-Soil Conservation Service (SCS) staff. They have been identified as local management agencies in each of the 208 project areas which have attained that planning stage. Their locally elected boards of directors govern a subdivision of state government which has designated responsibilities for nonpoint source water quality management efforts.

The ASC county committees are locally elected farmer groups which serve as an arm of the U.S. Department of Agriculture. Their responsibilities include administration of cost-share funds available through the Agricultural Conservation Program (ACP). If any Rural Clean Water Projects are approved, the responsible local ASC county committee will administer the funds and will be jointly responsible with the local SWCD board to determine which conservation practices will be cost-shared.

The county governing boards of commissioners are responsible for adopting any ordinances found to be necessary. They are also a potential source of funding and can strengthen SWCD efforts. It is anticipated that the SWCD boards will serve as advisory bodies to the county commissioners.

C. IMPLEMENTATION AGREEMENTS

The Soil and Water Conservation Commission, as lead management agency for agricultural nonpoint source water quality management, will work with each agency which has conservation implementation responsibilities. Agreements will be negotiated for the purpose of developing a coordinated effort to achieve water quality goals by concentrating conservation activities in priority areas and on critical problems which will result in practical water quality benefits. As these agreements are adopted, they will become part of this framework plan.

The procedures for achieving this program goal will involve seven major steps and will depend on the availability of adequate administrative, technical and financial support. Through the 208 grant-supported SWCC Program Implementation Project, it is expected that a majority of the groundwork will be completed during the Fiscal Years 1981-1982 and thereby facilitate future implementation efforts. The seven-step procedure is outlined below:

1. Assessment and identification of priority water quality problem areas.

2. Designation of local management agencies.
3. Development of work plans and Management Agency Implementation Statements (MAISs).
4. Evaluation of implementation funding options.
5. Preparation of funding proposals.
6. Establishment of working agreements with SWCDs, SCS, ASCS and ASC county committees for allocation of cost share, technical and administrative support in the target areas.
7. Obtain approval and certification of implementation plans.

A detailed description of each of the above steps is continued in the 1981 SWCC 208 Program Implementation Project work plan (see attachment A).

An agreement will be prepared with the state ASCS Committee to Coordinate ACP Special Projects with water quality objectives. Regular county ACP funds will continue to be expended for local priorities which are established by the county committees in coordination with various local agency representatives and the SWCD board. The use of these funds to achieve conservation and water quality objectives simultaneously will need to be emphasized. The SWCD boards and ASCS county committees will be urged to adopt agreements which will spell out how they will cooperate to achieve water quality goals.

An agreement between the SWCC and OSU Extension Service on coordination and direction of appropriate information and education efforts will be developed to achieve the objectives outlined in Section 7.

Currently the SWCC has no formal agreement with SCS. A review of the working relationship will be undertaken and if formal agreements are needed, these will be developed.

The agreement existing between the Oregon Department of Forestry and SWCC will be reviewed to see if it needs to be revised and strengthened.

The SWCC, Oregon Department of Forestry, Oregon Department of Fish and Wildlife, U.S. Forest Service, Bureau of Land Management, Soil Conservation Service, U.S. Fish and Wildlife Service and OSU Cooperative Extension Service all have responsibilities for non-point source water quality management and all are signatories to the Coordinated Resource Management Program Memorandum of Understanding. This Memorandum of Understanding provides an excellent structure for interagency cooperation to assure that maximum benefit will result from the use of public or private

funds in efforts to achieve water quality goals. With CRM Board approval, the Oregon Department of Environmental Quality will be invited to become a party to the Memorandum of Agreement to strengthen the overall coordination of objectives and provide for optimum integration of the statewide water quality management efforts.

Other agreements will be negotiated and entered into as it becomes appropriate. The need for additional formal agreements will be an ongoing subject of review.

D. IMPLEMENTATION FUNDING OPTIONS

The SWCC will examine the various options available for funding the management agency responsibilities, technical assistance needs and affected public responsibilities for installation of appropriate conservation practices in those specific problem areas identified through the problem assessment stage of this plan.

Presently known potential funding sources for management agencies are:

1. FEDERAL

One of the RCA study recommendations is that the federal government pass funds through state soil conservation agencies or directly to SWCDs. While this potential source seems rather unlikely at the present, it will be pursued through the NACD and Oregon's Congressional Delegation.

2. STATE

State funding for SWCC and SWCD operations has been a traditional, if limited, source of funding. The state General Fund currently finances a substantial share of the cost of the Forest Practices Act's Nonpoint Source Water Quality efforts. A similar commitment to the agricultural sector of the state's economy is certainly justified. This avenue will be explored in cooperation with the OACD.

3. COUNTY

SWCDs currently receive some limited funding for district operations from county sources, but this support is irregular and some districts receive more than others. Many districts provide significant services to county governments, and this role can be expanded. County funding will be explored primarily through individual SWCD boards on the basis of service provided to the county.

4. DISTRICT

District taxing authority has been proposed through resolution by the OACD to the state legislature. If granted, and accepted by the public, tax monies could be used for management agency administrative responsibilities and project funding.

The state legislature is also considering extending the Bancroft Bonding Act to include SWCDs in its parameters; which could lead to subsequent legislation giving SWCDs the power to tax, levy bonds and make assessments.

Funds for the public's share of project costs may come from several sources:

1. Traditional cost share funds from the federal government, channeled through the USDA Agricultural Stabilization and Conservation Service.
2. Special project funding through Public Law 566, Resource Conservation and Development Projects (RC&D), Rural Clean Water Act (RCWA), and any other appropriate sources which may be available.
3. Technical assistance by the USDA-Soil Conservation Service is not an actual funding resource, but represents a very substantial contribution to BMP installation.
4. Landowner installation costs for both cost shared and noncost shared BMP installation is substantial but must be expanded if progress in NPS water quality control efforts is to be successful. Many BMPs will be implemented entirely at the landowner/manager's expense.
5. Project funding through the state General Fund is being sought, and this potential source of funds will continue to be explored in cooperation with the OACD.
6. SWCD taxing authority, as previously described above, and county General Funds may be made available.

As a part of the SWCC Statewide Framework Plan, all of the above options, and any others which may become available, will be explored and the most practical ones for specific situations will be selected. The SWCC will assist the various management agencies in reviewing possible options and selecting the most appropriate and practical ones for their individual situations.

E. EXISTING WATER QUALITY IMPLEMENTATION PLANS

In addition to the Special Studies described in the Planning Section several implementation plans have been developed in the state, some of

which are presently being implemented; others are awaiting funding opportunities. These implementation plans are listed below followed by a brief summary of each:

1. Washington County Implementation Plan.
2. Upper Tualatin River Water Quality Implementation Project.
3. Tillamook Bay Drainage Basin Site Specific Agricultural Pollution Abatement Plan.
4. North Central Oregon Wheat Growing Region BMP Implementation Project.
5. RVCOG 1981-83 208 Project - Agricultural BMP Implementation Project.
6. Willowa SWCD Water Management Policy Statement.

WASHINGTON COUNTY IMPLEMENTATION PLAN

Washington County SWCD received Management Agency designation from the county and submitted a NPS Water Quality Management Plan to SWCC in July, 1979. The plan lays out the foundation for water quality management in the county which would insure BMP installation in the most critical areas to abate pollution and improve water quality. The development of this plan was done entirely by the SWCD with no outside funding. Implementation would require selection of priority project target areas and funding.

UPPER TUALATIN RIVER WATER QUALITY IMPLEMENTATION PROJECT

In February, 1981, the Washington County SWCD was granted \$55,905 from the U.S. EPA to address severe streambank erosion on five miles of the Upper Tualatin River. Sediment impacts municipal water supplies downstream and loss of prime agricultural land along the river is considerable. The project proposes to implement a comprehensive stream corridor management plan on valley farms.

Work on this project is expected to begin July 1981. Specific outputs will be development of eight site specific agricultural WQ conservation plans, a river corridor management strategy and special project funding applications.

TILLAMOOK BAY DRAINAGE BASIN SITE SPECIFIC AGRICULTURAL POLLUTION ABATEMENT PLAN

The special planning study conducted by the Tillamook SWCD during 1979-80 led to EPA approval of a \$65,704 grant in February 1981 to implement the water quality management plan developed during the special study. This implementation phase will result in approximately 69 agricultural water pollution abatement plans on agricultural operations within the Tillamook Bay Drainage Basin.

NORTH CENTRAL OREGON WHEAT GROWING REGION BMP IMPLEMENTATION PROJECT

Several years of nonpoint source pollution abatement planning efforts in the five-county region of North Central Oregon has led to this site specific implementation project in Umatilla County. In February, 1981, the U.S. EPA granted \$82,469 to this two year effort that proposes development of a comprehensive land and water treatment project in the high erosion hazard watershed of the Little Greasewood Creek. The plan is designed to implement BMPs in this highly visible 4,330 acre watershed so it can be used as a BMP demonstration showcase for many thousands of similar acres in the area.

RVCOG 1981-83 208 PROJECT - AGRICULTURAL BMP IMPLEMENTATION PROJECT

As a continuance of the RVCOG 1979-81 208 Project, the U.S. EPA granted \$41,091 in February 1981 for promotion of BMP installation in agricultural operations in Jackson County. The Jackson SWCD, under sub-contract with the RVCOG (Rogue Valley Council of Governments), will utilize the grant to produce conservation plans and BMP implementation in a selected priority water quality problem area in Jackson County. This agricultural project is but one element of RVCOG's extensive 208 Program which incorporates federal and local funding and support to address several serious pollution issues in the county, including subsurface sewage treatment.

WALLOWA SWCD WATER MANAGEMENT POLICY STATEMENT

In April 1977 the Wallowa SWCD proposed a water management policy involving close cooperation with the Wallowa County Court to provide water quality management leadership in a coordinated program with land owners, managers, state, federal and local units of government.

While this is not an actual WQ implementation plan, it deserves mention in this Framework Plan as an example of individual SWCD and county efforts to conserve and properly manage the water resources of the state. The Policy Statement addresses the most serious WQ problems in the county and outlines a potential clean-up program.

VII INFORMATION AND EDUCATION

The success of any program depends greatly on its ability to widely distribute information about the goals, purposes, benefits and requirements of that program. The key element of the Agricultural NPS Program is a coordinated interagency information and education program. Information and education must be directed to give landowners and water and land users an understanding of the need for both preventive and corrective action. Secondly, it should be directed towards informing the general public what needs to be done and building support for achieving the needed actions.

There is a recognized need to provide information to agricultural operators about economically feasible practices which will provide effective control of NPS pollution. The SWCC will cooperate with OSU

Extension Service, commodity, farm, wildlife and environmental organizations and other state and federal natural resource agencies in coordination of a statewide agricultural water quality management information and education program.

Information received from other groups and agencies will be published and distributed by the SWCC to Oregon's 47 SWCDs to be made available to landowners and managers and the general public. The SWCC will also provide information to the other groups and agencies as appropriate. SWCDs will be urged to place more emphasis on information and education in their contacts with the agricultural community.

Written materials, films, slide sets, news media, television and radio will be utilized wherever appropriate or possible to make the materials available to as large an audience as possible.

VIII SUMMARY

Natural resource conservation needs are constantly changing and variable from one geographic area to another. Solutions are often as varied and diverse as the problems themselves. New technology continuously develops improved techniques and practices to address specific problem situations in resource management; and the problems must undergo continuous review, revision and updating to maintain an active priority list correlated with recommended treatment measures. To be effective, this Statewide Agricultural Framework Plan must remain open and flexible to those changes.

The Statewide Agricultural Framework Plan is not a restrictive platform based on regulation. As such, it must undergo a more rigorous schedule of review and revision to keep abreast of the times. It lays down a logical foundation for statewide water quality management which incorporates past and present studies and relies on known data; the door is left open for future changes, improved conservation methods and new information.

The Statewide Agricultural Framework Plan also relies on a voluntary approach towards problem solving activities. The most obvious benefit of this voluntary program is the high level of cooperation it attains with landowners and managers, federal and state resource agencies, and federal, state and local units of government. The success of any program is reflected in the degree of cooperation it achieves with all affected and interested parties. As long as this voluntary approach is successful, it will be used by the SWCC in all of its natural resource management efforts in the state of Oregon. The concentrated information and education program described in this framework plan is designed to accelerate this cooperative spirit among interested and affected groups and the general public.

The primary key to the success of this program lies in local management. When local groups are involved in planning and implementation of a project it becomes a source of community pride which far

exceeds the overall benefits achieved through enforced regulation. Local management insures local public involvement and cooperation and logical, efficient solutions to the identified problems. Management by any other level of government will usually fail to address the real concerns and needs in a local situation.

A major task to be performed by SWCC in implementation of this statewide framework plan will be setting and maintaining a current priority list to insure that funding opportunities that arise are directed to the most critical problem areas in the state. Funding resources must be ambitiously pursued; without them the objectives and goals outlined in this plan will not be realized.

All in all, this framework plan represents the SWCC's continuing commitment to the conservation and proper management of Oregon's natural resources. Within the limits of staff and funding resources, everything possible will be done to meet clean water goals wherever attainable in the state of Oregon. This translates to pollution abatement, improved water quality and increased productivity in the agricultural community.

SWCC 208 PROGRAM IMPLEMENTATION PROJECT

WORK PLAN

INTRODUCTION AND GENERAL PROBLEM DESCRIPTION

In January 1979 the Oregon Soil and Water Conservation Commission (SWCC) was designated by the Governor as the management Agency for Agricultural Nonpoint Source Water Quality Programs within the state of Oregon. Following that designation, SWCC entered into agreements with the Oregon Department of Environmental Quality (ODEQ) to carry out management and administration responsibilities for specific water quality planning and implementation projects during 1979-80. Administration of FY 79 208 grant funds was accomplished through sub-contractual arrangements with local project management agencies. Projects were monitored and coordinated by SWCC through a 208-funded Project Coordinator Position.

Program funding under Section 208 in Fiscal Year 1981 provides additional water quality projects and extends some existing ones which focus on development of local and area-wide plans addressing specific water quality needs identified in past and present studies. Coordination of these projects and their integration into the Statewide Agricultural Framework Plan for Water Quality Management being developed by SWCC is necessary to achieve National Clean Water Goals in the State of Oregon and to fulfill SWCC's designated water quality management responsibilities.

Additionally, there is a critical need to upgrade the level of Oregon's Soil and Water Conservation District (SWCD) efforts in development and implementation of water quality plans that will result in meeting National Clean Water Goals wherever obtainable in the state of Oregon. Critical areas of the state must be identified and implementation funding resources explored to assure that water quality in the state is improved and maintained.

PROGRAM ELEMENTS AND RESPONSIBILITIES

The present SWCC 208 Project Coordinator position will be revised and extended to administer FY 81 208 grant monies. It will be a responsibility of the Project Coordinator to monitor grant-supported agricultural nonpoint source water quality projects and conduct periodic review of project schedules and outputs to assure that project goals and objectives are being met.

Projects will be coordinated to assure their successful integration with other appropriate programs into the comprehensive Statewide Agricultural Framework Plan for Water Quality Management.

Direct assistance to individual project sponsors in meeting work schedules, outputs and report requirements, including development of simplified financial management systems where needed will be a responsibility of the Coordinator, as well as providing assistance where needed in development and/or maintenance of public involvement activities.

A list will be developed targeting critical water quality problem areas within the state based on Phase I and II of Oregon's Statewide Assessment of Nonpoint Source Problems, RCA Inventory and SWCD Natural Resource Conservation Programs. It is anticipated that approximately eight areas of concern will be addressed within the scope of this task; the approximation being based on a DEQ summary of instream water quality prepared in 1980 that identifies composite water quality ratings by basin within the state. This projection may be revised when the data is further evaluated and compared with the above identified data sources.

Soil and Water Conservation Districts within the identified target areas will then be given assistance in development of water quality management plans and Management Agency Implementation Statements (MAISs), consistent with goals and objectives specified in the Statewide Agricultural Framework Plan for Water Quality Management. New and existing water quality management activities will be coordinated with statewide agricultural policy development and implementation of the Statewide Agricultural Framework Plan.

The Coordinator shall be responsible for assisting designated management agencies in the investigation of implementation options working in cooperation with federal, state and local governments and agencies. Working agreements with SWCDs, USDA-Soil Conservation Services (SCS), Agricultural Stabilization and Conservation Service (ASCS) and ASCS County Committees would be developed and coordinated with predetermined national funding priorities and contingent upon available cost-share monies. Other funding resources would have to be explored and the information supplied to management agencies to assist with their efforts to obtain Special ACP Projects, PL-566 Projects, RC&D Projects and other available and appropriate implementation resources to meet work plan funding goals.

In addition to providing assistance to management agencies in their public involvement activities, the Coordinator will prepare regular reports for presentation to the DEQ Policy Advisory Committee, Environmental Quality Commission, Soil and Water Conservation Commission, Oregon Association of Conservation Districts and other public groups and organizations as requested or appropriate. The news media will be utilized where possible to inform the general public of specific project activities and opportunities for increased public involvement. Other information and education activities will be carried out as needed or as opportunity arises.

The Coordinator will be responsible for preparation of regular quarterly reports on the SWCC 208 Program Implementation Project and for a final report at the end of the project which will include a short summary of accomplishments and success in improving water quality in the state of Oregon.

GOALS AND OBJECTIVES

1. Successful completion of specific 208 grant-supported agricultural water quality management projects:
 - A. SWCC 208 Program Implementation Project
 - B. Tillamook Drainage Basin Site Specific Abatement Plan
 - C. Upper Tualatin River Water Quality Implementation Project

- D. North Central Oregon Wheat Growing Region Site Specific Implementation Project
- E. Confined Animal Feeding Operations Waste Management Program
- F. Rogue Valley Council of Governments 1981 208 Project; Agricultural Element *

* (The above list subject to change depending on EPA funding approvals of the individual projects.)

2. Successful integration of 208 grant-supported agricultural nonpoint source water quality projects with other appropriate programs into the Statewide Agricultural Framework Plan for Water Quality Management.
3. Assure that specific project completion reports are reviewed for technical adequacy and consistency with State and Federal Water Quality Management policies.
4. Assessment of critical water quality problem areas within the state and development of target list of SWCDs (management agencies).
5. Agricultural Nonpoint Source Water Quality Plans and work schedules for implementation from target areas (output of Goal 4, above), including Management Agency Implementation Statements.
6. Evaluation of Implementation Options to obtain needed technical and financial assistance (state and local cost-sharing, tax incentives and redirection) and preparation of proposals to meet the needs.
7. Achieve working agreements with SWCDs, SCS, ASCS, and ASCS county committees for allocation of cost-share funds for problem abatement in target areas.
8. Public involvement in all projects that provides incorporation of responses into project activities and reports and builds support for the credibility and acceptance of those projects. Public involvement activities will be specifically related to designated management agencies and SWCDs involved in 208-funded projects.
9. Approval and certification of output water quality plans.

IMPLEMENTATION OPTIONS

The SWCC 208 Program Implementation Project will examine the various options available for funding the management agency responsibilities, technical assistance needs and affected public responsibilities for Best Management Practice (BMP) installation in those specific areas identified in the scope of this project. Information collected will be integrated into the Statewide Agricultural Framework Plan for Water Quality Management. Presently known potential funding sources for management agencies are:

1. FEDERAL

One of the RCA Study recommendations is that the federal government pass funds through state soil conservation agencies or directly to SWCDs. While

this potential source seems rather unlikely at the present, it will be pursued through the NACD and Oregon's Congressional Delegation, and as such it is beyond the scope of the Coordinator's responsibilities. However, should progress be made in this direction, appropriate coordination will be made with management agencies in their planning and implementation efforts.

2. STATE

State funding for SWCC and SWCD operations has been a traditional, if limited, source of funding. The state General Fund currently finances a substantial share of the cost of the Forest Practices Act's NPS Water Quality efforts. A similar commitment to the agricultural sector of the state's economy is certainly justified. This avenue will be explored in cooperation with the OACD.

3. COUNTY

SWCDs currently receive some limited funding for district operations from county sources, but this support is irregular and some districts receive more than others. Many districts provide significant service to county governments, and this role can be expanded. County funding will be explored primarily through individual SWCD Boards on the basis of service provided to the county.

4. DISTRICT

District taxing authority has been proposed through resolution by the OACD to the state legislature. If granted, and accepted by the public, tax monies could be used for management agency administrative responsibilities and project funding.

(NOTE: The Coordinator's responsibilities in exploring the various options outlined above would be in data and information gathering for utilization by the designated management agencies and 208-supported project sponsors.)

Funds for the public's share of project costs may come from several sources;

1. Traditional cost share funds from the federal government, channeled through the USDA Agricultural Stabilization and Conservation Service (ASCS).
2. Special project funding through Public Law 566; Resource Conservation and Development Projects (RC&D); Rural Clean Water Act (RCWP); and any other appropriate sources which may be available.
3. Technical assistance by the USDA-Soil Conservation Service is not an actual funding resource, but represents a very substantial contribution to BMP installation.
4. Landowner installation costs for both cost share and non-cost share BMP installation is substantial and must be expanded if progress in NPS water quality control efforts are to be successful. Many BMPs will be implemented entirely at the landowner/operator's expense.

5. Project funding through the state General Fund is being sought and this source of funds will continue to be explored in cooperation with the OACD.
6. SWCD taxing authority, as previously described herein, and county general funds may be made available.

As a part of the SWCC Statewide Framework Plan for Water Quality Management, all of these options, and any others which may become available, will be explored and the most practical ones for specific situations will be selected. The SWCC will assist the various management agencies in reviewing possible options and selecting the most appropriate and practical ones for their specific situations.

WORK STATEMENT AND TASKS

1. Assist new project sponsors with development of simplified financial management systems and familiarize them with required interim report format.
2. Coordinate interim reports, payment requests and certifications for submittal to EPA through ODEQ; providing administrative and policy assistance to sponsors as needed.
3. Maintain liaison between sponsors, citizens' water quality advisory committees, technical advisory committees, SWCC, OACD, ODEQ, EPA and ODEQ's Policy Advisory Committee (PAC).
4. Administrative, policy and management responsibilities will be carried out on the following 208 projects (contingent upon final funding approval):
 - a) SWCC 208 Program Implementation Project
 - b) Tillamook Drainage Basin Site Specific Abatement Plan
 - c) Upper Tualatin River Water Quality Implementation Project
 - d) North Central Oregon Wheat Growing Region Site Specific Implementation Project
 - e) Confined Animal Feeding Operations Waste Management Program
 - f) Rogue Valley Council of Governments 1981 208 Project; Agricultural Element
5. Periodically review grant-supported project schedules and outputs to assure that project goals and objectives are being met.
6. Review and approve project completion reports, ascertaining their technical adequacy and consistency with state and federal water quality management policies. Assist sponsors with distribution, review and coordination of comments and assist planning agencies in making necessary revisions. Evaluate and approve proposed BMPs and implementation options. Assist with agreements or MAISs required for implementation. Assist with preparation of certification documents for submittal to EPA through SWCC, ODEQ and Governor's Office.
7. Compile data from Phase I and II of Oregon's Statewide Assessment of Nonpoint Source Problems, RCA Inventory, SWCD Natural Resource Conservation Programs and other pertinent information sources to establish a list of

priority water quality problems and needs. Data compiled will be coordinated with other SWCC efforts in development and updating the Statewide Agricultural Framework Plan for Water Quality Management.

8. Develop procedure for interested and affected groups (ASCS, SCS, ODEQ, SWCC, SWCDs, OSU Extension Service, etc.) to agree on and approve list of priority water quality problem areas and schedule annual reviews to update the lists.
9. Based on output of Tasks 7 and 8, assistance will be given to SWCDs in the identified priority areas in achieving agricultural 208 water quality management agency designations. Upon designation, Management Agency Implementation Statements will be developed and submitted through the proper channels to EPA.
10. Provide direct assistance to designated management agencies in development of agricultural water quality implementation plans within the capabilities of existing management agency staff, and confirm their approaches for identification of problems and needs to assure consistency with statewide Water Quality Management goals and objectives.
11. Assess designated management agency resources and staffing needs for the priority water quality problem areas and assist in development of programs and alternatives to meet those needs.
12. Assist in the development of working agreements with ASCS state and county committees for allocation of cost-share monies to fund approved water quality implementation plans in coordination with predetermined national funding priorities and available funds. Coordination with the statewide WQM plan and other implementation options would also be necessary.
13. Provide information and data to designated management agencies in their preparation of funding applications using information sources described under "Implementation Options" (Page 28) and the working agreements developed as outputs of Task 12 (above). Resources such as ASCS, ACP Special Projects, PL-566 and RC&D will be explored.
14. Develop an annual schedule for approved WQM Plan Implementation in priority areas and coordinate implementation reviews of designated management agencies, working with EPA Region 10 to develop minimum criteria to evaluate the effectiveness of voluntary agricultural WQM programs.
15. Status and progress reports will be presented at meetings of SWCC, PAC, EQC, technical and citizen advisory committees and others as needed or requested. Assistance will be given to project sponsors in development and implementation of their individual public involvement programs as needed.

OUTPUTS

1. Regular quarterly reports on each ongoing project along with their respective expenditure reports and payment requests. SWCC will review and approve reports before submission to assure their adequacy in meeting project schedules and output requirements.

2. Approved project completion reports. SWCC will review each report for technical adequacy and consistency with state and federal WQM policies and assist in the review process and coordination of comments.
3. Approved list of priority water quality problem areas in Oregon including recommendations for problem abatement. This output will go through a review process with the interested and affected groups (ASCS, SCS, ODEQ, PAC, SWCC, and Extension Service, etc.) prior to submission.
4. Designation of SWCDs in identified priority problem areas as Water Quality Management agencies wherever possible and development of Management Agency Implementation Statements (MAISs) from each.
5. Approved water quality implementation plans from designated management agencies in priority WQ problem areas based on outputs 3 and 4. Implementation plans can only be developed in those areas which have sufficient data and information concerning the water quality problems of the area and adequate staff/funding levels to develop those plans. We anticipate that some areas will require concept work plans to seek funding for initial study projects in lieu of actual implementation programs. In these cases, assistance will be given to management agencies in correlation of data and information necessary to the development of concept papers.

Output 5 will also involve assessments of designated management agency resources and staffing needs (Task 11) which address, respectively, needs for implementation plan development and/or actual implementation projects, as appropriate.

6. Development of working agreements with ASCS state and county committees, SCS, ODEQ, SWCC and appropriate SWCDs for allocation of cost-share monies and/or other funding options which may be available to implement approved Water Quality Management plans. Coordinator will provide information and data necessary to management agencies in their efforts to secure funding support for approved projects. A major objective will be to accomplish "on-the-ground" water quality management projects in all identified priority areas; however, this must be contingent upon the unique circumstances in each individual project area and based on the resources available.
7. An annual schedule for approved WQM plan implementation in the priority areas will be developed where possible (i.e; where adequate resources exist that allow implementation plan development and funding is available.)
8. Public Responsiveness Summary: A brief summary will be written and incorporated into the SWCC 208 Program Implementation Project final report outlining the public involvement elements of the project, consistent with standard EPA requirements.
9. Final Report: This will consist of a summary of the Coordinator's activities during the project with specific focus on project accomplishments which have (or have potential for) improved water quality in the state of Oregon.

PUBLIC INVOLVEMENT

Soil and Water Conservation Districts are either sponsors of, or active participants in, each of the projects. All hold regularly scheduled monthly meetings and will have a 208 agenda item to provide the local public with status and progress of projects and opportunities for input.

Coordinator will provide status and progress reports on all project areas to scheduled meetings of the ODEQ-PAC, SWCC, OACD, EQC and others as appropriate or requested.

Coordinator will develop specific public involvement activities related to project Outputs 3 through 7 inclusive. This will involve formation of a review committee consisting of interested and affected groups as outlined in Output 3.

SWCC will conduct special meetings as necessary or participate as requested in meetings specifically related to 208 program activities. There will be particular emphasis placed upon keeping local elected officials apprised of opportunities for their involvement and participation in program development and management.

Press releases will be developed and distributed to the news media announcing all scheduled meetings pertaining to ongoing and potential 208 projects and giving general news stories on 208 activities around the state. These will be developed and released as appropriate.

Coordinator will participate in, and assist individual project sponsors with their own public involvement activities as necessary or appropriate.

AGENCIES INVOLVED

The SWCC will be the contractor and will carry out project activities as described above. ODEQ will provide lead agency supervision and assistance. Local responsibilities for individual projects will be carried out by sub-contract with the appropriate agencies upon EPA approval of individual projects. Technical assistance and review will be provided by USDA-Soil Conservation Service; public involvement and information assistance by OSU Extension Service; financial assistance by ASCS and USDA-Soil Conservation Service (PL-566 and RC&D); other financial assistance programs will be explored with the appropriate agencies and governments. Research assistance will be provided by OSU Experiment Station.

MILESTONE/PROFILE SUMMARY

This project addresses the needs of the SWCC as management agency in the State of Oregon for Agricultural Nonpoint Source Water Quality programs. It is designed to provide individual 208-supported WQM projects with the necessary program administrative and management support and assistance for successful completion of their responsibilities.

Additionally, the program will provide much needed support to management agencies in specific areas of the state which are experiencing severe water quality

problems and accomplish development of pollution abatement plans and implementation funding support for those areas.

<u>MILESTONE</u>	<u>PROJECTED OUTPUT DATE</u>
1. Project Completion Reports: *	
a. CAFO Waste Management Program.....	12-30-81
b. Upper Tualatin WQ Project.....	10-01-82
c. Tillamook Bay Pollution Abatement Plan.....	04-01-83**
d. N. Central Or. Wheat Region BMP Project.....	06-30-83
e. RVCOG - 1981 Agricultural 208 Plan.....	12-31-81***
f. SWCC 208 Program Implementation Project.....	06-30-83
*Contingent upon EPA approval and funding	
**Depending on start-up date; project proposal is for 24 month duration	
***Output date based on 1st year of project with 01-01-81 start-up date.	
2. Approved List of Priority WQ Problem Areas.....	01-15-82
3. MAISs from Management Agencies.....	03-15-82
4. Priority Area WQM Plans.....	01-30-83*
5. Assessment of Management Agency needs.....	01-30-83*
6. ASCS Agreements.....	06-30-82
7. Annual Implementation Schedule.....	03-30-83
8. Final Report.....	06-30-83

*Projected Output Date is estimated; at this time there is insufficient data to accurately predict the number of WQM plans or their scheduled completion.

SECTION 6
BEST MANAGEMENT PRACTICES

BASIS OF SELECTION

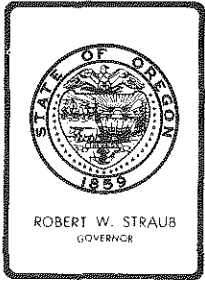
The Water Resources Committee organized a Best Management Practices subcommittee to develop a list of BMPs for the county. The committee felt it would be advantageous for the county to develop its own list of BMPs, which could then be included in the statewide BMP list.

The Soil Conservation Service's Technical Guide was the basis for the BMPs selected for Malheur County. One of the most important considerations for the practices selected was that they would be technically and economically feasible for farmers to apply. The primary goal of BMPs is the protection or improvement of water quality and a reduction in erosion and sedimentation. Expensive practices that result in little or no water quality ^{or} and soil stabilization benefits should be avoided.

LOCAL CONDITIONS

The irrigated row crop areas of Malheur County are unique because they are the most intensively cultivated land in Oregon. This uniqueness is further compounded by the semi-arid climate and the complex irrigation and drainage systems. An understanding of these unique features and their effects on water quality is mandatory when developing a list of BMPs.

Because of the semi-arid climate, farmers depend on irrigation water for the production of their crops. This irrigation water is delivered to their farms in a variety of ways. Much of the water is used and reused several times over. This repeated re-cycling of the water over and over can affect its quality. As a result, state water quality standards are too rigid for the lower Malheur Basin. The ultimate attainment of these standards with the present use of the water for intensive agricultural purposes is not possible. The beneficial uses that need to be ^{addressed} ~~managed for~~ are irrigation and warm water fishery. Malheur County ~~would~~ encourage [§] the state to reassess its standards for this area because BMPs could be applied to every acre, and the state standards, as they exist now, still could not be met.



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

DEFINITION

The term "Best Management Practices" originates with the rules and regulations developed pursuant to the "Continuing Planning Process" required by Section 208 of the Federal Water Pollution Control Act. This terminology is used extensively in water quality management plans with reference to the procedures and methods for controlling nonpoint source pollution.

The Federal Register defines BMPs as follows:

"The term Best Management Practices means a practice or a combination of practices that is determined by a state (or designated areawide planning agency) after problem assessment examination of alternative practices and appropriate (including technological, economic, and institutional considerations) means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals." (40 CFR Part 130).

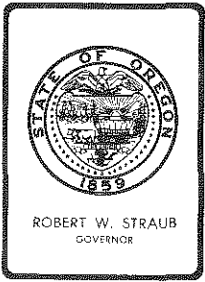
The Federal Register also states several criteria or tests that should be applied in choosing BMPs:

1. Best Management Practices should manage pollution generated by nonpoint sources.
2. Best Management Practices should be compatible with water quality goals.
3. Best Management Practices should be most efficient in preventing or reducing the amount of pollution generated.
4. Best Management Practices should be "practicable."

BMPs listed in this section are those currently recognized as being effective in treating site specific problem situations identified in this plan. As new technology develops improved techniques and practices, this list will be revised and updated, See Table 23, ~~page 104~~

IRRIGATION WATER MANAGEMENT

An important part of irrigation water management is the proper use of the water for each irrigation, which is determined by the moisture holding capacity, *and*

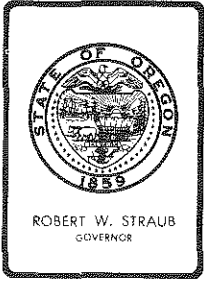


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Table 23
MALHEUR COUNTY BEST MANAGEMENT PRACTICES
CROSS REFERENCE TO SCS TECHNICAL GUIDE

Best Management Practices	Soil Conservation Service Practice	Number
Irrigation Land Leveling	Irrigation Land Leveling	464
Sprinkler	Irrigation System, Sprinkler	442
Structure for Water Control	Structure for Water Control	587
Irrigation Water Conveyance Ditch - Concrete Ditches	Irrigation Water Conveyance Nonreinforced Concrete Ditch & Canal Lining	428-A
Irrigation Water Conveyance Pipelines	Irrigation Water Conveyance Pipeline	430
Gated Pipe	Irrigation Water conveyance Rigid Gated Pipeline	430-HH
Grade Stabilization Structure	Grade Stabilization Structure	410
Debris or Desiltation Basin	Sediment Basin	350
Tailwater Recovery	Irrigation System, Tailwater Recovery	447
Filter Strip	Filter Strip	393
Surface Collection Field Ditch or Drain Ditch	Surface Drainage, Field Ditch	607
Irrigation Water Management	Irrigation Water Management	449
Water Collection Pipe with Risiers for Tailwater Control	Subsurface Drain	606
Streambank Protection	Streambank Protection	580
Critical Area Planting	Critical Area Planting	342
Range Seeding	Range Seeding	550
Brush Management	Brush Management	314
Livestock Water Development		
Springs	Spring Development	574
Ponds	Pond	378
Wells	Well	642
Pipelines	Pipeline	516
Troughs	Trough or Tank	614
Planned Grazing System	Planned Grazing System	556
Proper Grazing Use	Proper Grazing Use	528
Livestock Exclusion	Livestock Exclusion	472



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

infiltration rate of the soil and need of the crop. The water is applied at a rate and in such a manner that the crop can use it efficiently and where ~~significant~~ ^{significant} erosion does not occur. The management of irrigation water would include the timing of irrigation to meet crop needs, the control and adjustment of stream sizes to prevent erosion and maintain water quality, and the control of length of "set" to reduce losses from over-irrigation. The purpose of irrigation water management is to apply irrigation water at a level that will meet the moisture needs of the crop and achieve optimum production while minimizing losses of soil and plant nutrients. Minimizing losses of soil and plant nutrients not only improves crop production, but also maintains water quality.

The practices identified for irrigation water management are designed to control sediments in irrigation return flow. By controlling sediments in irrigation return flow, nutrients and pesticides, which are attached to ~~sediments~~ ^{soil particles}, are also controlled. The general management approaches for controlling sediments in irrigation return flow are:

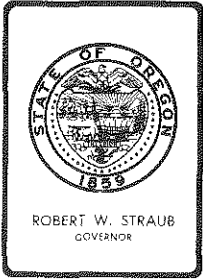
1. Careful application of irrigation water to limit or minimize erosion.
2. Removal of sediment in return flow water by controlling the tailwater and utilizing sediment detention basins.
3. Use of irrigation methods that produce a minimum of runoff.

In an irrigation system there are four basic components: (1) water source; (2) water delivery; (3) on-farm water use; and (4) water removal. The BMP subcommittee was primarily concerned with the components of water delivery, on-farm water use, and water removal.

The following list of BMPs is divided into those three categories: (1) water delivery, (2) on-farm use, and (3) water removal. The definition and purpose of each practice is at the end of the section.

Water Delivery. Alternative components may include the following:

1. Irrigation water conveyance ditch and canal lining (concrete ditches)
2. Structures for water control
3. Irrigation water conveyance--pipelines
4. Grade stabilization structures



State Department of Agriculture

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On-Farm Water Use. Alternative components may include the following:

1. Land leveling
2. Gated pipes
3. Sprinklers
4. Structures for water control
5. Irrigation water conveyance--pipelines
6. Irrigation water conveyance-- *concrete ditches*
7. Grade stabilization structures
8. Irrigation water management

Water Removal. Alternative components may include the following:

1. Structures for water control
2. Debris or desiltation basins
3. Tailwater recovery
4. Filter strip
5. Surface collection field ditch (drain ditch)
6. Grade stabilization structures
7. Irrigation water conveyance ditch or canal lining, concrete, *ditches* (for tailwater)
8. Irrigation water conveyance, pipelines (for tailwater)
9. Corrugated pipe with risers for tailwater control

Definitions and Purpose.

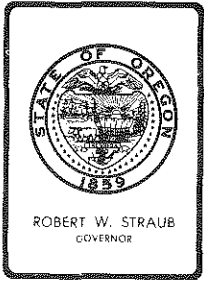
1. Irrigation Land Leveling

Definition: Reshaping the surface of land to minimize soil erosion.

Purpose: To permit uniform and efficient application of irrigation water without excessive erosion and, at the same time, to provide for adequate surface drainage.

2. Sprinkler

Definition: A planned irrigation system where all necessary facilities have been installed for the efficient application of water for irrigation by means of nozzles operated under pressure.



State Department of Agriculture

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Purpose: Sprinkler irrigation systems are installed to apply irrigation water efficiently and uniformly without excessive runoff or erosion, in order to maintain soil moisture within the range for optimum plant growth.

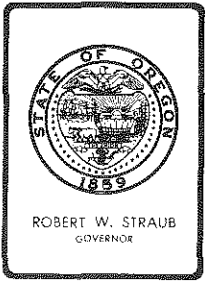
Constraint: A major consideration is the high energy demands to operate a sprinkler system

3. Structure for Water Control

Definition: A structure in an irrigation or drainage system for water management that conveys water, controls the direction or rate of flow, or maintains a desired water surface elevation in a natural or artificial channel. Also includes any structure for managing water levels for wildlife or other purposes.

Purpose: Water control structures are installed to control the stage, discharge, distribution, delivery or direction of flow of water in open channels or water use areas. This practice applies wherever a permanent structure is needed as an integral part of an irrigation, drainage, or other water control system, or channel improvement project to serve one or more of the following functions:

- A. To control erosion and delivery as water is conducted from one elevation to a lower elevation within, to, or from a ditch, channel, or canal. Typical structures: drops, chutes, turnouts, surface water inlets, head gates, pump boxes, stilling basins.
- B. To control the elevation of water in drainage or irrigation ditches. Typical structures: cement checks.
- C. To control the division or measurement of irrigation water. Typical structures: division boxes, water measurement devices.
- D. To protect pipelines from the entry of trash, debris, or weed seeds. Typical structures: debris screens.
- E. To control direction of channel flow resulting from backflow from flooding. Typical structure: drainage gates.
- F. To control water table or removal of surface or subsurface water of adjoining land, to manage water levels for



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

wildlife or recreational purposes. Typical structures: water level control structures, pipe drop inlets, box inlets.

G. To provide conveyance for water over, under, or along a ditch, canal, road, railroad, or cutouts, flumes, inverted syphons.

4. Irrigation Water Conveyance Ditch--Concrete Ditches

Definition: Concrete lining in existing or newly constructed field ditch or irrigation canal or lateral.

Purpose: The principal purposes of ditch and canal lining are to prevent erosion, to reduce water loss, and to prevent waterlogging of land.

5. Irrigation Water Conveyance--Pipelines

Definition: A pipe or closed conduit installed in an irrigation system.

Purpose: An irrigation water distribution or conveyance system that has been designed to facilitate the conservation of soil and water resources on a farm or group of farms.

6. Gated Pipe

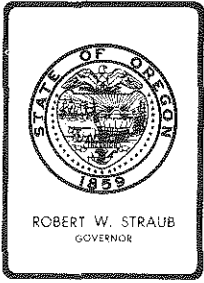
Definition: A rigid or flexible pipe with adjustable orifices to regulate the flow of water down furrows.

Purpose: To apply irrigated^{ion} water efficiently and uniformly without excessive runoff and erosion in order to maintain soil moisture for optimal plant growth, and to reduce water losses and waterlogging.

7. Grade Stabilization Structure

Definition: A structure to stabilize the grade or to control head cutting in natural or artificial channels.

Purpose: Grade stabilization structures are installed to stabilize the grade in natural or artificial channels, or prevent the formation or advance of gullies. Example is a drop pipe from field into a ditch.



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8. Debris or Desiltation Basin

Definition: A barrier or dam constructed across a waterway or at other suitable locations to form a silt or sediment basin.

Purpose: To preserve the capacity of reservoirs, ditches, canals, diversions, waterways and streams and to prevent undesirable deposition on bottom lands by providing basins for the deposition and storage of silt, sand, gravel, stone and other debris, and maintain water quality.

9. Tailwater Recovery

Definition: A facility to collect, store and transport irrigation tailwater for reuse on the farm irrigation distribution system.

Purpose: Tailwater recovery systems are installed to conserve farm irrigation water supplies and silt collection by collecting the water that runs off the surface of sloping fields and making this water available to reuse on the farm, and to maintain water quality.

Constraint: A major consideration in this practice is the high energy demand to operate the pumps. Also, the reuse of tailwater may present problems to other farmers who depend upon return flow for their irrigation water.

10. Filter Strip

Definition: A strip of suitable dense vegetation established at the edge of a field.

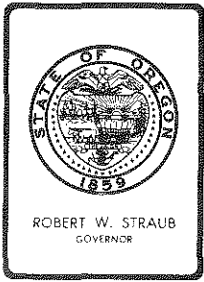
Purpose: To filter out sediment that is in irrigation tailwater and maintain water quality.

11. Surface Collection Field Ditch or Drain Ditch

Definition: A graded ditch for collecting excess water and sediment within a field.

Purpose: Surface collection field ditches are installed to:

- A. Collect or intercept excess surface water such as sheet flow from natural and graded land surfaces or channel flow from furrows for removal to an outlet, designed to not erode the corrugate.



State Department of Agriculture

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B. Collect sediments that may be in the tailwater. Mini-basins and T-slots may be needed under certain conditions to collect sediments.

12. Irrigation Water Management

Definition: The use and management of irrigation water, where the quantity of water used for each irrigation is determined by the moisture holding capacity and infiltration rate of the soil and the need of the crop.

Purpose: The accomplishment of efficient beneficial use of irrigation water according to moisture needs of the crop, to achieve optimum production while minimizing losses of soil and plant nutrients, and maintain water quality.

13. Water Collection Pipe with Risers for Tailwater Control

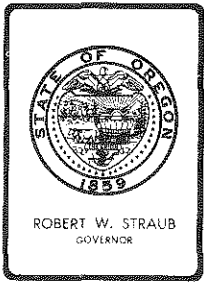
Definition: A pipe with risers installed at the lower end of a field designed to carry the tailwater off the field.

Purpose: To eliminate the convex erosion syndrome that occurs at the lower end of a field that is under furrow irrigation. By installing the corrugated pipe with risers it allows the silting up of the lower end of the field and thus eliminates the erosion and head cutting in the tailwater ditch and the corrugates.

ANIMAL WASTE MANAGEMENT

Livestock operations are a major part of Malheur County's economy, which includes both dairy and beef cattle operations. Landowners in Malheur County, as well as the rest of Oregon, are awaiting the development of a separate confined animal feeding operation waste management study being conducted by the State Soil and Water Conservation Commission. This study will outline the alternatives available for animal waste management.

Public meetings have been and will continue to be held throughout the state to gain public input into these animal waste regulations.



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

SOIL STABILIZATION

These BMPs are intended to help stabilize soil erosion along critical areas such as streambanks, road cuts and steep slopes. Streambank erosion is probably one of the major causes of sediments in the county's natural waterways.

Streambank Protection.

Definition--Stabilizing and protecting banks of streams or excavated channels against scour and erosion by vegetative and/or structural means.

Purpose--Streambank protection is established to stabilize or protect streambanks in order to:

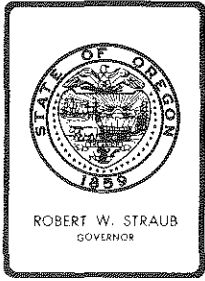
1. Reduce sediment loads causing downstream damages or improve the stream for recreational use or as a habitat for fish and wildlife.
2. Prevent damage to utilities, roads, buildings, or other facilities adjacent to the channel.
3. Maintain the capacity of the channel.
4. Control channel meander that would adversely affect downstream facilities.
5. Prevent loss of agricultural land and other land uses.

System Components. The following is a partial list of elements that may be involved in a plan for streambank protection.

1. Obstruction removal--the removal of fallen trees, stumps, debris, minor ledge outcroppings and sand and gravel bars that may cause local current turbulence and deflection.
2. Banksloping--the reduction of the slope of streambanks to provide a suitable condition for vegetative protection or for the installation of structural bank protection.
3. Riprap--placed or dumped heavy stone, properly underland with a filter blanket when necessary, to provide armor protection for streambanks.

Critical Area Planting.

Definition--Planting vegetation such as trees, shrubs, vines, grasses or legumes in critical areas.



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

Purpose--To stabilize the soil; reduce damages from sediment and runoff to downstream areas; improve wildlife habitat; and enhance natural beauty.

Where Applicable--On sediment-producing, highly erodable or severely eroded areas such as dams, dikes, mine spoils, surface mine areas, cuts, fills, levees, subdivisions, highway, streambanks, and denuded or gullied areas where vegetation is difficult to establish with usual seeding or planting methods.

RANGE MANAGEMENT

Approximately six million acres of rangeland are suitable for grazing livestock in Malheur County. This amounts of 94 percent of the land. Much of this rangeland, 75 percent of the county, is managed by Bureau of Land Management. Good range management is important for livestock grazing, stabilizing the soil and maintaining the vegetative resource.

Range management systems are a combination of practices that can help stabilize the soil and prevent vegetation loss on rangeland. They help maintain the land for grazing as well as prevent excessive soil erosion and water loss.

System Components. The following may be used in designing a range management system:

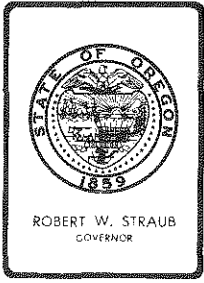
1. Range Seeding

Definition: Establishing adapted plants by seeding on rangeland.

Purpose: To (1) prevent excessive soil and water loss; (2) produce more desirable forage on rangeland; and (3) improve the natural beauty of grazing land.

2. Brush Management

Definition: Management and manipulation of stands of brush by mechanical, chemical, or biological means or by prescribed burning on rangeland, pastureland, recreational, and wildlife lands. (Includes reducing excess brush to restore natural plant community balance and manipulating brush stands through selective and patterned control methods to meet specific needs of the land and objectives of the land user.)



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

Purpose: To improve or restore a quality plant cover to (1) reduce sediment and improve watershed quality; (2) increase quality and production of desirable plants for livestock and wildlife; (3) maintain or increase wildlife habitat values; (4) enhance aesthetic and recreational qualities; (5) maintain open land; and (6) protect life and property.

3. Livestock Water Development

Definition: Springs, ponds, wells, pipelines, and troughs, etc., used on rangelands for livestock watering.

Purpose: Livestock water developments are installed to improve range conditions by providing for a better livestock distribution that will improve or maintain range forage and reduce soil erosion.

4. Planned Grazing System

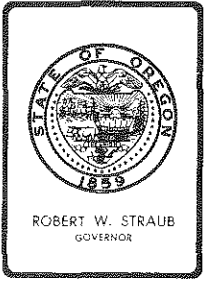
Definition: A system in which two or more grazing units are alternately rested from grazing in a planned sequence over a period of years. The rest period may be throughout the year or during the growing season of the key plants.

Purpose: (1) to maintain or accelerate improvement in plant cover while properly using the forage on all grazing units; (2) to improve efficiency of grazing by uniformly using all parts of each grazing unit; (3) to insure a supply of forage throughout the grazing season; (4) for watershed protection; (5) to enhance wildlife habitat; and (6) to improve the quality of the environment.

5. Proper Grazing Use

Definition: Grazing at an intensity that will maintain enough cover to protect the soil and maintain or improve the quantity and quality of desirable vegetation.

Purpose: To (1) increase the vigor and reproduction of key plants; (2) accumulate litter and mulch necessary to conserve soil and water; (3) improve or maintain range condition; (4) increase forage production; (5) maintain natural beauty; and (6) reduce the fire hazard on forest land.



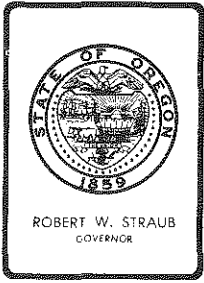
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6. Livestock Exclusion

Definition: Excluding livestock from an area where grazing is not wanted.

Purpose: The use of this practice can: protect an existing vegetative stand from grazing; protect a new seeding from grazing and give it chance for establishment; protect a critical soils area from the harmful effects of grazing and trailing; or protect a water supply from direct pollution by livestock.



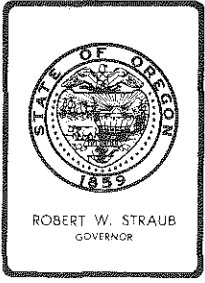
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Photo

~~SWCC Photo by Joe McGray~~

~~Malheur Reservoir near Sampling Station #17.~~



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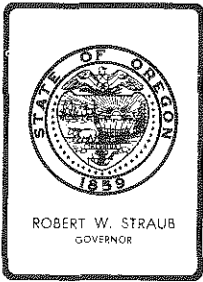
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SECTION 7

I M P L E M E N T A T I O N

SWCC Photo by Joe McCray

Mouth of Willow Creek; Sampling Station #20.

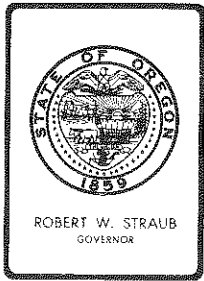


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SWCC Photo by Joe McCray

Mouth of Bully Creek; Sampling Station #24.



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SECTION 7
IMPLEMENTATION

APPROACH

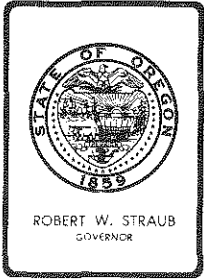
The implementation of BMPs will consist of a voluntary program and a regulatory program. The voluntary program will attempt to make people aware of: (1) the water quality program; and (2) the purpose and benefits of applying BMPs to a specific piece of land. The regulatory program is a last resort effort to enforce BMP application where needed and where the landowners are unwilling to voluntarily resolve the water quality ^{problems} ~~program~~ they are creating.

The underlying philosophy of the voluntary program is that a substantial majority of the landowners are already applying BMPs through their normal farming operations. Many more will implement BMPs as the benefits and purposes of the water quality program become more widely known. However, the county also recognizes there will be some who may have a soil erosion problem or may be creating a water quality problem and are unwilling to take any corrective action. In these instances a regulatory program will be needed.

VOLUNTARY PROGRAM

The voluntary program is designed to inform people about the water quality program, the BMPs, and the technical and financial assistance available to land-
downers and operators in applying BMPs.

Education and Information. The widespread acceptance of a new idea or concept is usually slow to come about. Farmers usually put a considerable amount of thought into a new idea before implementing it. Agricultural experiment stations have been established to develop new techniques and further technology in all phases of agriculture. As part of an existing, on-going program, the Oregon State University Extension Service program disseminates this information to landowners. This same information program will be used to inform the people of Malheur County of the water quality management program and the benefits to water quality by applying BMPs to the land.



State Department of Agriculture

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Conservation tours, newsletters, demonstration projects, and public meetings are identified as ways to inform the public of the ~~BMPs~~ that need to be applied for the enhancement of water quality.

Technical Assistance. Individual landowners need technical assistance to implement BMPs on a site-specific basis. This includes advice and specifications on both structural and nonstructural measures.

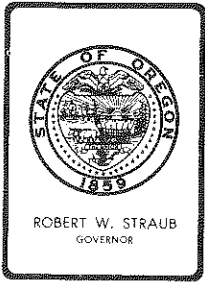
Technical assistance will be provided to the landowner in a coordinated, planned approach that will look at the entire farming operation to ensure the recommendations fit into the overall farming program. In some cases a site-specific approach may be all that is necessary. In many instances, however, a complete soil and water conservation plan will need to be developed to coordinate the implementation of BMPs. In still other cases, planning will need to be done on a group basis to ensure ^{the} ~~the~~ ^{most} ~~the~~ ^{comprehensive} necessary treatment for a given area.

Financial Assistance. The objective here is to minimize the adverse financial impact on the individual farmer or rancher who is implementing BMPs. In many instances the only thing required may be improved management practices, which will not require cost-share assistance. On the other hand, to implement practices that require financial investments, the landowner will need some type of financial assistance. This financial assistance will be on a cost-share basis. It will not be a loan program.

Congress, in 1977, amended the Clean Water Act, PL-95-217. ~~One of~~ ^{the} changes includes a cost-share program designed to encourage the implementation of BMPs. The program has been titled the Rural Clean Water Program (RCWP). Limited appropriations have been forthcoming under this amendment and specific proposals need to be developed to receive funding.

In order to deal with specific problem areas in Malheur County, financial aid will be prioritized according to critical areas identified in the nonpoint assessment section of the plan.

These targeted critical areas will also serve as a basis for developing special projects that are eligible under the Agricultural Conservation Program (ACP)



State Department of Agriculture

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Special Project, the Rural Clean Water Program (RCWP), and the Watershed Protection and Flood Prevention Act, PL 83-566.

MANAGEMENT

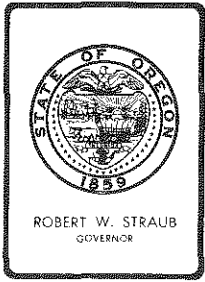
The implementation of the water quality plan will include the designation of a "lead management agency" that will be required to carry out actions necessary to achieve the goals and objectives of the plan. To be effective, the lead management agency's capabilities ^{must} will include: (1) the ability to coordinate all elements of the plan with agencies involved; (2) ^{the} ability to conduct a yearly review of the plan; (3) ^{the} ability to implement BMPs; and (4) ^{the capability} to be involved with the regulatory phase of the plan.

The Malheur County Court, composed of the County Judge and two County Commissioners, is responsible for all elements of the water quality plan. It will be their responsibility to ensure the successful implementation of the water quality plan. The Court, however, is not in a position to implement all the work as outlined in the plan. Therefore, the Court has designated the Malheur County Soil and Water Conservation District as the lead management agency to carry out the implementation of the plan. This designation does not mean the Malheur County SWCD is the final decision maker. This responsibility belongs to the Malheur County Court. The Court will review and monitor the performance of the SWCD to ensure the needs of the county are being met.

The Malheur County SWCD is composed of seven members who are elected on the general ballot to serve four-year terms. The district (Malheur County) is divided into five geographic zones, each with an elected representative. There are two representatives elected At Large.

Under ORS 568.055, the district has the authority to enter into contracts, accept and utilize grants, raise revenues, and to incur short and long term indebtedness. Under ORS 568.630-770, the district has quasijudicial capacity to enact regulations in the interest of conserving the soil and soil resources, and preventing and controlling erosion. This capacity is subject to a two-thirds voter approval within the district.

At the present time the Malheur County SWCD has no staff of its own. It does have a memorandum of understanding with USDA-Soil Conservation Service to



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

provide technical assistance to its district cooperators. For the Malheur County SWCD to fully undertake its responsibilities as outlined in this plan, district staff persons will be necessary. As funds become available these staff persons will be hired.

The responsibilities of the agencies and organizations involved in implementing the water quality plan are outlined in the following sections.

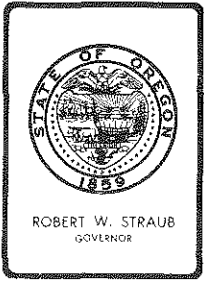
1. Management Agency's Responsibilities

Malheur County Court will:

- A. Adopt the Malheur County 208 Water Quality Management Plan.
- B. Designate the Malheur ^{County} Soil and Water Conservation District as the lead management agency.
 - (1) Require the SWCD to prepare timely reports on the status of the program.
 - (2) Review the performance of the SWCD to insure the program is meeting its purpose and objective.
- ~~C. (3)~~ Sign needed agreements with public and private groups to implement various portions of the plan.
- ~~D. (4)~~ Be the final decision maker on the water quality program, including plan revisions and update^{ing}.
- ~~E. (5)~~ Hear appeals by landowners or operators on SWCD decisions.

The Malheur County Soil and Water Conservation District will:

- A. In cooperation with the Malheur County Court jointly adopt the water quality management plan.
- B. Accept the responsibilities as the lead management agency.
- C. Establish the administration^{ve} framework for coordinating all phases of the program including educational, financial assistance, the voluntary phase, and the regulatory phase.
- D. In cooperation with the County Court jointly adopt the Best Management Practices to improve water quality.
- E. Establish criteria for prioritizing the application of BMPs to ensure that the most critical water quality problems are being addressed.



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

F. Coordinate:

- (1) The voluntary phase of implementing BMPs.
- (2) All financial programs to help implement BMPs.
- (3) Implementation of the 208 Water Quality Plan with other programs administered by the district.
- (4) Yearly program reviews and revisions as necessary.
- (5) Any further sampling programs by any agency.

The Water Resources Committee will:

- A. Function as a citizen^s advisory committee to the County Court and Soil and Water Conservation District.
- B. Review the performance of the SWCD with respect to whether the water quality plan is achieving its goals and objectives, and recommend changes as needed.

2. Support Agencies' Responsibilities

USDA-Soil Conservation Service

- A. Evaluate the BMPs for compliance with the practice standards and specifications as outlined in the technical guide.
- B. Provide technical support to the program and assist participating land^s owners or operators in developing conservation plans that incorporate BMPs.
- C. Coordinate the implementation of the water quality plan with other programs administered by SCS to ensure that all federally assisted projects, where appropriate, employ BMPs for water quality.
- D. Provide additional support as appropriate.

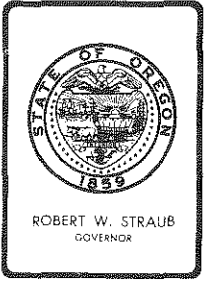
Malheur ASC County Committee

Agriculture^a Stabilization and Conservation Service

- A. Assist in coordinating the water quality plan with the Agricultural Conservation Program (ACP) and other programs administered by ASCS to help ensure that all ASCS programs, where appropriate, employ BMPs.

OSU Extension Service

- A. Work with the County Court, Water Resources Committee and the Malheur County SWCD to develop and implement an education program to inform the public about the water quality plan and BMPs for improving water quality.



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

- B. Coordinate tours to view farms applying BMPs and explain benefits derived.
- C. Develop economic analysis for individual landowners on the effects of applying BMPs.
- D. Provide additional support as necessary.

OSU Agricultural Experiment Station, Malheur Station

- A. Provide assistance to the County Court, Water Resources Committee and the Malheur County SWCD in the implementation of the water quality plan through research into new and improved farm management practices that will abate agricultural pollution and improve water quality.
- B. Establish demonstration and evaluation sites to show farmers the benefits of installing BMPs.
- C. Advise the County Court, Water Resources Committee and the Malheur County SWCD on other matters affecting agricultural activities and water quality.

Oregon Department of Fish and Wildlife

- A. Provide assistance to the County Court and the SWCD on the quality and quantity of fish and wildlife habitat in the county.
- B. Inform the SWCD as to any adverse effects on wildlife habitat/ population resulting from implementation of this water quality plan.

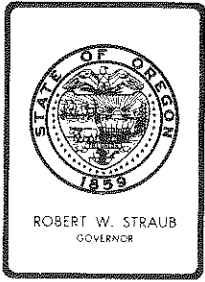
Bureau of Land Management

- A. Enter into a cooperative agreement with the County Court and SWCD for adopting and implementing BMPs on federal lands.
- B. Coordinate the water quality plan for Malheur County with BLM programs to ensure that all federally assisted projects employ BMPs.

(NOTE: See Appendix for copies of the signed memoranda of agreement between the Malheur County Court and the above named agencies.)

REGULATORY PROGRAM

The main emphasis of the implementation program is on voluntary compliance in applying BMPs where they are needed to improve water quality or protect the soil resource. The U.S. Environmental Protection Agency policy guidelines do



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310

stipulate, however, that regulatory ^{backup is} ~~programs are~~ required for nonpoint source control ^{programs} and shall be submitted for approval as part of a 208 plan where they are determined to be the most practicable method of assuring that an effective NPS program is implemented.

On this basis, the Water Resources Committee has established the following policy:

A five-year voluntary phase-in program will be utilized in Malheur County. The five-year period will begin after the Water Quality Management Plan is adopted by the County Court and approved at the state and federal levels.

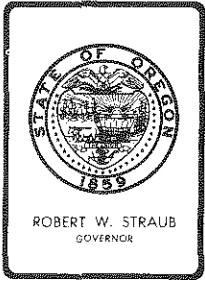
The basis for this policy is the fact that many of the farmers and ranchers are already applying BMPs in their everyday farming operations. As the educational, technical, and financial assistance elements of this plan are carried out, more and more farmers and landowners will apply BMPs. The regulatory program will be necessary only in a few instances where ~~landowner~~ landowner(s) are unwilling to correct existing problems.

According to EPA guidelines, the following is the regulatory program of the Malheur County Water Quality Management Plan.

Coverage. All lands in Malheur County shall be required to comply with Section 208 of the Federal Water Pollution Control Act, as amended.

Implementation Techniques.

1. The program shall be totally voluntary for five years after the adoption of the plan by the County Court and approved at the state and federal levels.
2. The voluntary program can be successful only if there is adequate financial and technical assistance available to the farmers to apply BMPs.
3. The Malheur County Soil and Water Conservation District will assist landowners or groups of landowners with requests for technical and/or financial assistance. It will work closely with the technical, financial, and educational agencies to coordinate any or all programs that could be beneficial in applying BMPs to the land.



State Department of Agriculture

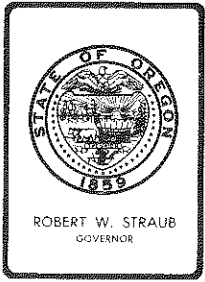
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Standards.

- The appropriate application of the*
1. Best Management Practices ^{agency} ~~adopted~~ ^{this} in the water quality management plan shall be the basis for determining whether an individual is in compliance.
2. Best Management Practices shall be incorporated into each conservation plan developed with the technical assistance of local agencies.
3. Best Management Practices shall be reviewed annually by the SWCD and the Water Resources Committee to ensure they are accomplishing the objectives of the water quality management plan.

Enforcement. Any enforcement will take place five years after the adoption of the water quality management plan by the Malheur County Court.

1. Operators would not be considered out of compliance if timely technical and/or financial assistance were not available to carry out the recommended corrective actions. This would also apply to an operator after a complaint has been filed.
2. Any written complaint can be filed with the Malheur County Court, and will be referred to the SWCD.
3. The Malheur County Court will authorize the SWCD to investigate any alleged violation of the water quality management plan.
- A. The SWCD shall determine the validity of the complaint.
- B. If the SWCD determines they are in violation, they will be required to develop a conservation plan using Best Management Practices that are economically feasible to achieve compliance. A time schedule to implement the plan will also be included.
- C. The Soil Conservation Service and other agencies will provide technical assistance in developing a conservation plan that will apply the Best Management Practices on a site-specific basis.
4. The SWCD will approve the conservation plan and review the progress of implementing the plan.
5. Lack of progress with regard to the implementation of the conservation plan will constitute a violation.
6. If the individual does not agree with the provisions of the conservation plan, the individual shall have the opportunity of a hearing before the SWCD.



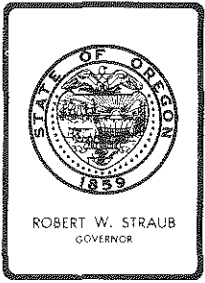
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Appeal. Any appeal from the SWCD Board decision may be made to the County Court, provided an appeal is filed with the County Clerk within 30 days of the SWCD Board decision.

1. ^{in hearing} Any appeal from the SWCD Board, ^{the County Court} shall base its decision upon a report of the SWCD proceedings and any new testimony or evidence. The decision of the Court shall be made in the form of an order and will be final.
2. Failure to comply will be subject to civil penalties.

Review. The County Court will review the water quality program no later than five years after its inception to ensure it is meeting the goals and objectives as intended.



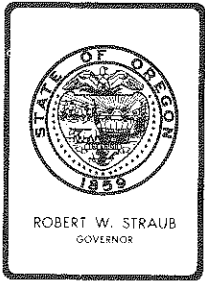
State Department of Agriculture

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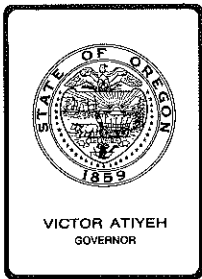
~~SWCC Photo by Joe McCray~~

~~Malheur River at Butte Drive; second year sampling station.~~



State Department of Agriculture

AGRICULTURE BUILDING, SALEM, OREGON 97310



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item T, August 28, 1981, EQC Meeting

Request By The Lane Board of Commissioners To Postpone
Progress Under Certain Conditions of The River Road/Santa
Clara Intergovernmental Agreement.

Background and Problem Statement

1. On September 18, 1980, the Lane County Board of Commissioners and the Environmental Quality Commission signed an Intergovernmental Agreement to effect long-term groundwater quality improvements in the River Road/Santa Clara area.
2. Some progress has been made pursuant to the Conditions of the Agreement. A more complete recounting of history and specific progress is described in Attachment 1.
3. In a June 3, 1981 letter to Bill Young (Attachment 2), the Lane Board of Commissioners requested postponement of further progress until approximately January, 1982. The principal reasons cited for the delay were:
 - a. County fiscal constraints.
 - b. Continued "progress" as described in the original Intergovernmental Agreement may interfere with real progress in light of certain recent events. Such recent events include an LCDC compliance order (probably to be issued in September, 1981) for Lane County, and resolution of House Bill 2521 relating to incorporation of cities. At this writing, the Governor has not signed the Bill.
4. On August 6, 1981, LCDC adopted DLCD's staff report offering a 120 day continuance to the City of Eugene, the City of Springfield, and Lane County to revise the Metropolitan General Plan. This



Contains
Recycled
Materials

action by LCDC causes a potential conflict with certain dates in the original Intergovernmental Agreement, if certain dates in said Agreement remain the same.

Alternatives and Evaluation

1. The Department or EQC alternatives include do nothing; prepare a staff response of approval or denial; refer to the Environmental Quality Commission.
2. Since the Intergovernmental Agreement is signed by the Environmental Quality Commission, a Commission response is appropriate. The Director advised the Lane Board of this recommendation in his June 23, 1981 letter (Attachment 1).
3. Excerpts of language from the LCDC staff report Acknowledgement of Compliance Eugene/Springfield Metropolitan Area, Recommendation Section under Goal 11, Public Facilities and Services which will affect the Agreement include:
 - a. "2. Lane County must amend its version of the Metro Area Plan consistent with the Eugene-Springfield version with respect to Policy 7 . . . Policy 12 . . . and Geographic Phasing . . . Lane County must delete Policy 17, which permits development on "alternative forms" of sewage disposal systems."
 - b. "3. Eugene, Springfield and Lane County must amend the Metro Area Plan to include a long-term master sewerage plan for River Road/Santa Clara, consistent with requirement "2" above. This plan must include the layout and location of any required pump stations, interceptors and trunk lines, and a strategy and schedule for implementation. The existing CH2M Hill plan is a sufficient basis for this master sewerage plan, if it is updated to reflect existing conditions."
 - c. "6. Eugene, Springfield and Lane County must amend the Metro Area Plan to require that development on private sewage disposal systems in the unincorporated area within the UGB be permitted only under the following conditions (See also Goal 14):
 - a. lot divisions shall be regulated to assure retention of large lot sizes in urbanizable areas (a ten acre minimum lot size is sufficient to meet this criterion); and
 - b. the siting of residences shall be reviewed to ensure that development to full planned densities can be achieved when sanitary sewer service is available.Lane County must amend its zoning and land division codes to carry out this requirement."

4. Condition VII of the Intergovernmental Agreement states that the "EQC shall conduct a public hearing by no later than January 1, 1982 to evaluate progress."

To ensure coordination between the LCDC Compliance Order and the Lane Board-EQC Intergovernmental Agreement, this public hearing date should be delayed until May, 1982.

Lane County would have to continue making progress under the voluntary Intergovernmental Agreement in order to comply by March, 1982 with the LCDC Continuance Order.

5. The Director advised the Lane Board in his August 12, 1981 letter (Attachment 3) that to adequately address LCDC-EQC coordination and be responsive to the Board's earlier postponement request, dates in Agreement Conditions II, (III is dependent upon II) and VII would need modification. Further, that the July 1, 1981 progress report (Condition VI) ought not be submitted. These recommendations to the EQC are contained in this staff report.

Summation

1. On June 3, 1981, the Lane Board of Commissioners requested a postponement of progress under the River Road/Santa Clara Intergovernmental Agreement until January, 1982.
2. This request has been impacted by recent events, most particularly a Compliance Order from LCDC which would affect the subject area and require compliance with Statewide Planning Goals by March, 1982.
3. Condition VII of the Intergovernmental Agreement states that the EQC will conduct a public hearing to review progress by no later than January 1, 1982. To ensure coordination with the LCDC Continuance Order, this public hearing should be postponed until May, 1982.

Director's Recommendations

Based upon the Summation:

1. It is recommended that the Commission extend or waive dates in Conditions II, (III would remain dependent upon II) VI and VII of the Intergovernmental Agreement and amend those Conditions as follows:
 - a. Condition II: Lane County agrees to adopt a long-term urban master sewerage plan for the River Road/Santa Clara area no later than the compliance date in the September 1, 1981 LCDC Compliance Order or March 26, 1982, whichever comes first. Such plan

shall utilize or amend the existing "Eugene-Springfield Metropolitan Area Treatment Alternatives 208 Plan" of April, 1977. This master sewerage plan shall specify the method of management, collection, treatment and disposal of sewage.

- b. Condition III: Compliance date remains dependent upon Condition II.
 - c. Condition VI: The July 1, 1981 progress report is hereby waived.
 - d. Condition VII: The EQC will review the semi-annual progress reports mentioned in paragraph VI, above. The EQC shall conduct a public hearing by no later than May 15, 1982 to evaluate progress. Upon review of said progress reports, at the public hearing, or at any other time the EQC may comment, assist, or take action outside the Intergovernmental Agreement including but not limited to that described in Oregon Revised Statutes (ORS) 222.850 through 222.915, ORS 454.235(2), and/or ORS 454.685.
2. It is further recommended that the Commission seek concurrence by the Lane Board of Commissioners regarding the extension of Condition VII. If such concurrence is not received, then the extension of Condition VII should not be made.



William H. Young

Attachments: (4)

- 1. June 23, 1981 letter from Department of Environmental Quality Director, William H. Young.
- 2. June 3, 1981 letter from Lane Board of Commissioners' Chairman, Harold Rutherford.
- 3. August 12, 1981 letter from Department of Environmental Quality Director, William H. young.
- 4. Intergovernmental Agreement showing proposed changes.

JEB:wjr
378-8240
August 12, 1981



Department of Environmental Quality

522 S.W. 5th AVENUE, BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-

June 23, 1981

Mr. Harold H. Rutherford, Chairman
Lane County Board of Commissioners
Public Service Building
125 East 8th Avenue
Eugene, Oregon 97401

RE: WQ-River Road/Santa Clara
Lane County
Request For Agreement Extension

Dear Harold:

Regarding your request that progress on the River Road/Santa Clara Intergovernmental Agreement be postponed until approximately January, 1982, I must defer that judgement to the Environmental Quality Commission.

In the way of review, dates contained in the Agreement and their respective status are as follows:

1. Condition II; Adopt long-term master sewerage plan by December 19, 1981.

Status: Lane County circulated a draft River Road/Santa Clara Master Sewerage Plan Alternatives to Lane County staff and agencies for review on March 16, 1981, thus beginning this process.

2. Condition III; Develop and adopt an "Interim sewage collection, treatment and disposal ordinance" six months later.

Status: Dependent on Condition II; yet to be accomplished.

Mr. Harold H. Rutherford

June 23, 1981

Page 2

3. Condition IV; Consider a "Plat control program" by July 1, 1981.

Status: County staff is currently having discussions with area planners. Draft is not yet prepared and may be significantly impacted by potential LCDC compliance order on or after June 26, 1981.

4. Condition VI; Submit semi-annual progress reports beginning January 1, 1981.

Status: The January, 1981 status report was received and reviewed by the Environmental Quality Commission on March 13, 1981 (Agenda Item P). The July, 1981 status report will be waived subject to the discussion below.

5. Condition VII; Environmental Quality Commission conduct a public hearing to review progress by January 1, 1982.

Status: Not yet due.

6. Condition IX; Attempt to secure a tri-party agreement by December 1, 1980.

Status: Circulation of informational "River Road Tabloid" by the City of Eugene in November, 1980 partially fulfills this condition.

7. Condition XII; Environmental Quality Commission adopt final groundwater quality protection policy by March, 1981.

Status: Public hearings commenced in March, 1981. Another hearing will be held June 30. Target adoption by Environmental Quality Commission is July 17, 1981.

I gather from discussions between your staff and mine that progress will continue under some of the Conditions above, e.g., Condition IV and VI, even if the postponement is granted. Therefore, your postponement request is limited to Condition II and related Condition III.

In any event, considering your recent descriptive letters and postponement request, I see no need for a July 1, 1981 progress report (Condition VII).

Mr. Harold H. Rutherford
June 23, 1981
Page 3

I have instructed my staff to prepare a report along these lines for presentation at the July 17 Environmental Quality Commission meeting. The meeting will be in Portland at the Oregon Department of Fish and Wildlife hearing room.

Sincerely,

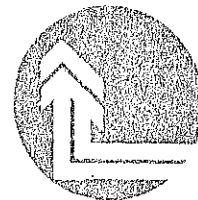
*Signed by WHY
June 24, 1981*

William H. Young
Director

JEB:ts

Attachment: June 3, 1981 letter from Harold Rutherford

cc: Joe Richards, Chairman, EQC, w/att
Craig Greenleaf, Department of Land Conservation and Development, w/att
Lane County Board of Commissioners
George Morgan, Lane County General Administrator
Bill Pye, MWMC
Diane Nechak, Lane Boundary Commission
Garrett Rosenthal, Lane Council of Governments
Willamette Valley Region, Eugene, DEQ
Water Quality Division, DEQ



BOARD OF COMMISSIONERS

Vance Freeman
Scott Lieuallen
Gerald Rust, Jr.
Otto t'Hooft
Harold Rutherford

June 3, 1981

Mr. William Young, Director
Department of Environmental Quality
522 SW 5th
Portland, Or 97204

Re: River Road/ Santa Clara Sewerage Planning

Dear Bill:

Pursuant to paragraph XIII of the River Road/Santa Clara stipulated agreement dated January 13, 1981, Lane County requests an alteration to the initially established time schedules.

Fiscal constraints have resulted in significant, County-wide staff reductions. Personnel currently committed to the stipulated agreement must be temporarily reassigned to other higher priority projects. Further, it is the consensus of the Lane County Board that an interruption of the stipulated agreement work schedule is in the public interest. Specifically, the agreement work should be interrupted until the Eugene/Springfield Metropolitan Plan is resubmitted to LCDC. As you know, the sewerage of the RR/SC area is one of many inter-related urbanizing issues that will be addressed in acknowledgement of the Metro Plan. Clearly, a comprehensive approach is desirable rather than initiating a "single" issue public involvement process which would result from continuation of the current agreement work plan. In addition, this interruption will permit resolution of legislation regarding incorporation currently before the State Legislature. Both of the above items could significantly influence the jurisdictional and financial segments of the Sewerage Plan.

We concur with the conclusion in your May 13, 1981 letter that the collection system (i.e. pipes) should not be substantially altered from the current staff's draft. Thus, prior to the end of this month the technical portion of the draft Sewerage Plan will be reviewed by the Board.

We anticipate this review to be beneficial in our preparation for resolution of remaining issues in the Metro Plan. The Board and County staff appreciates the efforts of your staff and cooperation of all the agencies who commented on our draft Sewerage Plan.

Based upon these considerations and County fiscal constraints, it is the desire of the Board that progress on the stipulated agreement be postponed until approximately January 1982 by which time the Metro Plan should have been resubmitted. Subsequent to the Metro resubmittal a revised work schedule will be forwarded to you for your review.

Your consideration of this request and the conditions which have prompted it is appreciated.

Sincerely,



HAROLD H. RUTHERFORD, Chairman
Lane County Board of Commissioners

HR/ta

cc: Lane County Commissioners
George Morgan, General Administrator
Rich Owings, Environmental Management
John Bordin, DEQ
John Porter, City of Eugene
Bill Pye, MWMC
Diane Nechak, Boundary Commission
Garrett Rosenthal, L-Cog



Department of Environmental Quality

522 S.W. 5th AVENUE, BOX 1760, PORTLAND, OREGON 97207

August 12, 1981

Honorable Harold H. Rutherford, Chairman
Lane County Board of Commissioners
Public Service Building
125 East Eighth Avenue
Eugene, Oregon 97401

Re: WQ-River Road/Santa Clara
Lane County
Request for Agreement Extension

Dear Harold:

As you know, Lane County's request to postpone progress of our Inter-governmental Agreement was not heard at the July 17, 1981 Environmental Quality Commission (EQC) meeting in Portland. We felt this was appropriate since the Eugene, Springfield, Lane County Metropolitan Area General Plan was then before the Land Conservation and Development Commission (LCDC) and LCDC's compliance action would have impacted our responses to your request.

On August 6, 1981, LCDC adopted a Department of Land Conservation and Development (DLCD) staff report recommending that a 120 day continuance be given for the revision of the Metropolitan Area General Plan.

The planning process would be enhanced if we coordinated the requirements of our Agreement and the LCDC Metropolitan Area General Plan Compliance Order. Accordingly, I have directed my staff to prepare a report to the EQC which will recommend a delay in Conditions II and III of our Agreement, as per my June 23, 1981 letter to you. This delay will allow for your completion of Condition II by March 26, 1982 or the date set in the expected LCDC's September 1981 Compliance Order, whichever comes first.

The date of Condition III of our Agreement would remain six months after the completion of Condition II. It should be noted that Lane County will have to coordinate Condition III of our Agreement and LCDC requirements. Condition III should not be construed to be less restrictive than LCDC's Compliance Order.

We will also be recommending a waiver of your July 1, 1981 progress report pursuant to Condition VI.

INTERGOVERNMENTAL AGREEMENT

WHEREAS, the Lane County Board of Commissioners and the Environmental Quality Commission recognize that public health must be protected and that a high-quality environment be maintained in the area generally known as River Road/Santa Clara, and

WHEREAS, Lane County recognizes that the River Road/Santa Clara area will eventually receive urban services including but not limited to sanitary sewers, and

WHEREAS, recent studies indicate that portions of the shallow groundwater in the area are affected with bacteria and nitrate-nitrogen, and

WHEREAS, studies indicate that significant pollutants may result from septic tank discharges from current developments, and

WHEREAS, Lane County and the Environmental Quality Commission agree that sanitary sewers are effective long-term means to reduce the level of contaminants in the River Road/Santa Clara area and,

WHEREAS, Lane County recognizes that the sewage treatment needs of the area should be provided by the Metropolitan Wastewater Management Commission's Sewage Treatment Facility, and

WHEREAS, Lane County and the City of Eugene have not jointly determined the most appropriate jurisdiction to provide sanitary sewage collection facilities to the area, and

WHEREAS, both jurisdictions recognize the planning and installation of long-term sanitary facilities in the area requires resolution of the question of jurisdictional responsibility, and

WHEREAS, Lane County and the EQC agree that concerted governmental effort to enhance the public health should be initiated prior to resolution of the jurisdictional question,

THEREFORE BE IT HEREBY RESOLVED:

- I. Lane County hereby agrees to remove its current subdivision moratorium which was originally implemented on June 9, 1971 after the following have been accomplished:
 - A. Lane County adopts a long-term urban master sewerage plan as described in Paragraph II.
 - B. Lane County develops and adopts an interim sewage collection, treatment and disposal ordinance as described in Paragraph III.
 - C. Lane County considers a plat control program as described in Paragraph IV.

Becomes March 26, 1982 or per LCDC order, etc.

- II. Lane County agrees to adopt a long-term urban master sewerage plan for the River Road/Santa Clara area no later than 15 months after approval of this agreement. Such plan shall utilize or amend the existing "Eugene-Springfield Metropolitan Area Treatment Alternatives 208 Plan" of April 1977. This master sewerage plan shall specify the method of management, collection, treatment and disposal of sewage.
- III. Lane County *(Remains dependent on Condition II, above)* agrees to develop and adopt an "Interim sewage collection, treatment and disposal ordinance" for the River Road/Santa Clara area no later than six months after adoption of the master sewerage plan described in Paragraph II above. Interim facilities are defined as temporary, and are to be replaced by permanent regional facilities when available.

Interim facilities shall include, but are not limited to, standard subsurface sewage disposal systems, mechanical oxidation facilities, sewage stabilization ponds, sand filters or others as described in Oregon Administrative Rules 340-71-005 through 71-045.

The ordinance shall at a minimum specify:

- A. Minimum criteria for facilities siting and construction.
 - B. Who will own and operate the facilities.
 - C. Under what circumstances and time schedules the facilities shall be salvaged or abandoned.
- IV. Lane County agrees to consider a new "Plat control program" no later than July 1, 1981, to facilitate reasonable development in the area.

The purpose of a plat control program is to maintain desired ultimate development density potential in areas where development may occur at lower densities prior to provision of full urban services. Developing areas outside of cities rely upon on-site sewage disposal. The large parcel sizes necessary to accommodate on-site sewage disposal can diminish ultimate density potentials and preclude the economical provision of urban services if plat control is not implemented.

- V. Lane County agrees to continue a public education program originally implemented on February 21, 1980.
- VI. Lane County agrees to provide semi-annual progress reports to the EQC to indicate the status of these programs and the interagency jurisdiction question. The first report is due January 1, 1981. *July 1, 1981 report waived*
- VII. The EQC will review the semi-annual progress reports mentioned in paragraph VI., above. The EQC shall conduct a public hearing by no later than January 1, 1982 to evaluate progress. Upon review of said progress reports, at the public hearing, or at any other time the EQC may comment, assist, or take action outside the intergovernmental agreement including but not limited to that described in Oregon Revised Statutes (ORS) 222.850 through 222.915, ORS 454.235(2), and/or ORS 454.685.

Becomes May 15, 1982 subject to Lane Board concurrence.

- VIII. Lane County agrees to work with the public, and affected public agencies during the planning and implementation of the public education, plat control, and alternative interim sewage programs.
- IX. Lane County and the Environmental Quality Commission agree that resolution of the jurisdictional question will hasten improvement in groundwater quality and thereby enable further development of the area. A separate tri-party agreement among Lane County, the Environmental Quality Commission, and the City of Eugene is needed to define a joint process to distribute information regarding jurisdictional alternatives to area residents. In particular the City is encouraged to develop positions on, and disseminate information pertaining to a) annexation procedures, b) available city services, c) costs of identified services, and d) optional strategies to deliver services including but not limited to phased delivery of city services and phased financial mechanisms. A tri-party agreement including provisions identified above should be completed no later than December 1, 1980.
- X. Upon a delineation of the appropriate jurisdiction to provide long-term sanitary services, Lane County agrees to develop or to work closely with appropriate public agencies to develop a plan to provide sanitary facilities.
- XI. The EQC agrees to offer Lane County technical staff assistance on call as expeditiously as possible. To enhance local program capabilities, this assistance from the EQC will not be less than one-fourth FTE position.
- XII. The EQC agrees to adopt a final groundwater quality policy, as discussed on 18 April, 1980, on or before March 1981.
- XIII. Lane County and the Environmental Quality Commission agree that timely implementation of this agreement may be impacted by federal and state regulations, litigation, and financial conditions. Therefore, Lane County reserves the right to request from the EQC alterations to initially established time schedules.

Board of County Commissioners
of Lane County, Oregon

Environmental Quality Commission
of Oregon

By: *Albert H. Densmore*
Otto t'Hooff, Chairman

By: *Joe B. Richards*
Joe B. Richards, Chairman

Harold Rutherford
Harold Rutherford, Vice
Chairman

Albert H. Densmore, Vice
Chairman

Vance J. Freeman
Vance Freeman

Ronald M. Somers

Gerald Rust
Gerald Rust
NO NO NO NO
WHERE ARE THE CITIZENS
CONSTITUTIONAL RIGHTS?
Archie Weinstein

Fred J. Burgess
Fred J. Burgess

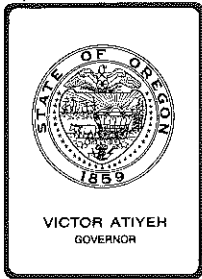
Mary V. Bishop
Mary V. Bishop

Date

09-19-80
Date

Terese Wilton 9-11-80
Approved as to Form

Approved as to Form



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. U , August 28, 1981, EQC Meeting

Proposed Adoption of Temporary Rule Amending Rules
for On-Site Sewage Disposal, OAR 340-73-055

Background and Problem Statement

At its March 13, 1981 meeting the Commission adopted a comprehensive set of Administrative Rules for On-site Sewage Disposal. OAR 340-73-055 sets standards for effluent pumps, controls, alarms, and dosing siphons. Certain of the standards affect electrical components on pumps, alarms and controls. It has recently come to the Department's attention that these standards conflict with the explosion-proof requirements of the State of Oregon electrical code. The electrical code requires electrical equipment installed in a potentially explosive atmosphere to be "intrinsically safe." Methane gas within pumping chambers is potentially explosive. The electrical equipment required in Appendix E does not meet the "intrinsically safe" requirement. Conversely, equipment that is intrinsically safe is prohibited by this rule. At this time any pumps, alarms or controls installed will be in violation of either the Department's rules or the State Electrical Code.

Alternatives and Evaluation

Several of the new alternative systems depend upon the use of pumps, alarms and controls. In addition, the number of alternative systems being approved is increasing rapidly. As a result of rule conflicts, we are at a standstill in approval of systems with electrical components. The State Fire Marshall will not approve changes to the State Electrical Code; therefore, it is necessary that the Department propose amendments to OAR 340-73-055 to alleviate the situation. Reliable equipment for use in sewage disposal systems and which meet electrical code requirements is available, however costs will be greater. Department rules need to be amended to allow its use.

Summation

1. The Commission adopted OAR 340-73-055, which sets standards for pumps, alarms and controls.
2. Some of the requirements of Appendix E conflict with the State Electrical Code for explosive atmospheres.
3. The conflict between the Department's rules, OAR 340-73-055 and the State Electrical Code, can be resolved by adoption of a temporary rule.

Findings

The Environmental Quality Commission finds that failure to act promptly will result in serious prejudice to the public interest or the interest of the parties concerned, in that on-site sewage disposal systems utilizing electrical components cannot be approved without being in conflict with the State Electrical Code.

Director's Recommendation

Based upon the findings in the Summation, it is recommended that the Commission adopt the proposed temporary rule amending OAR 340-73-055 as set forth in Attachment C.

Bill

William H. Young

Attachments: 5

- | | |
|----------------|--|
| Attachment A-1 | Memo of April 2, 1981, to Walt Keyes, Chief Electrical Inspector, from Pat Franzen, Chief Deputy |
| Attachment A-2 | Letter of June 10, 1981, from Orenco Systems, Inc. to Walt Keyes, Chief Electrical Inspector |
| Attachment A-3 | Letter of July 10, 1981, from Orenco Systems, Inc. to Sherman Olson of the Department of Environmental Quality |
| Attachment B | Statement of Need for Rulemaking |
| Attachment C | Proposed Temporary Rule |

T. Jack Osborne:l
XL457 (1)
229-6018
August 12, 1981

ORENCO SYSTEMS Inc.

1205 S.E. Court Avenue
 Roseburg, Oregon 97470
 503 673-0165

June 10, 1981

State of Oregon
 DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
 JUN 12 1981

Mr. Walt Keyes
 Chief Electrical Inspector
 Mr. Carl Koenig
 Assistant Chief
 Building Codes Division
 401 Labor & Industries Building
 Salem, OR 97310

WATER QUALITY CONTROL

Re: Electrical equipment in Sewage Lift Stations

Gentlemen:

Thank you for meeting with me last Friday, June 5. I very much appreciate your cooperation.

As you know, I was surprised at the application of the ruling made for Sewage Lift Stations, as contained in the memo to you from the State Fire Marshal, dated April 2, 1981. As Class 1 Division 1 locations, electrical equipment would have to be explosion proof as defined in NEC 100-A, or may be intrinsically safe, NEC 500-1.

This ruling substantially impacts all companies supplying equipment for pressure sewer or pressurized on-site sewage disposal systems, including Orenco. To better acquaint you with pressure sewers, an article is enclosed: "Pressure Sewer System Proves Effective, Economical", reprinted from the March issue of Public Works magazine. With either a pressure sewer or pressurized on-site sewage disposal, a sump pump is used to pump septic tank effluent. Is this to be construed as a "Sewage Lift Station", thereby to be included under the April 2 memo? I know of only two sources of intrinsically safe relays: DeLaval (Gems) and B/W. Information on these two products is enclosed.

The Gems Device is UL listed. It is CSA and FM approved. The list price is about \$90, and 2 are required, for a materials price of \$180. They would be installed in an enclosure mounted on the outside wall of the home. They are rated for an ambient temperature range of from 0° to 120° F. We have measured temperatures within typical electrical enclosures, and they substantially exceed 120°

ORENCO SYSTEMS Inc.

sometimes even ranging over 150°. In some Oregon climates, temperatures well below 0° would be expected.

The B/W intrinsically safe relay is FM approved. The list price is \$200, and two are required, for a total materials price of \$400. This unit cannot be used in UL assembly without adding an isolation transformer and ground fault interrupter.

The typical price for a septic tank effluent pump controller and level control system presently might range from \$75 to \$250. It appears that intrinsically safe provisions will more than double the cost, and the unit may be more maintenance intense.

Department of Environmental Quality (DEQ) regulations enclosed require that level controls be mercury switch with a mercury tube rating of 12 amps at 115 VAC. These regulations are not in compliance with the April 2 memo if septic tank effluent pumps are included in the definition.

Article 2.4. of the April 2 memo states that flexible cord may be as specified in NEC 501-11. The pumps used are supplied with SJO cable, rated for hard usage (NEC table 400-4). NEC 501-11 would require type SO cable, rated for extra hard usage. The pump manufactures will not allow us to change the cord without invalidating the pump warranty. Mercury switches that we use have SJTO cord. I know of none available with SO cord.

We now have a number of pumps in stock with SJO cable, and more on order. Materials are presently on order to build 100 UL listed but not intrinsically safe control panels, and many of the materials have been received. You can easily see how Orenco is affected. I would expect other suppliers to be affected to the same degree or worse.

The memo of April 2 refers to Sewage Lift Stations. I can accept the memo as it relates to conventional, municipal Sewage Lift Stations. Explosions can and do occur in these occasionally, due to the seep of spill of gasoline or other explosive substances into the gravity sewer, from industrial and sometimes commercial sources. Sewer gases such as methane and hydrogen sulfide can be explosive in certain concentrations and when combined with certain oxygen ratios, but this very rarely if ever occurs.

The risk of explosion is much less in septic tank - effluent pump vault than in a conventional, municipal Sewage Lift Station. No gravity collection sewer is used, to receive seepage of flammable substances. Pressure sewers and on-site systems usually serve homes, not industry. The

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DEPARTMENT OF ENVIRONMENTAL QUALITY
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WATER QUALITY CONTROL

ORENCO SYSTEMS Inc.

NEC specifically allows consideration of the "record of the industry" with respect to explosions in determining the classification of location (NEC 500-4-b footnote). Accordingly, many agencies have exempted pressure sewer equipment from the Class 1 Division 1 requirements applying to Sewage Lift Stations (reference Mr. J. F. Kreissl, U.S. EPA, Cincinnati, OH 513-684-7614). It is important also to note that the additional cost is insignificant when considering a Sewage Lift Station costing from \$20,000 to \$200,000, but it is not trivial to a septic tank effluent pump installation costing about \$2,500.

We intend to comply with your requirements. We favor relaxing the rule with regard to Septic tank effluent pumps, but more than anything else, we need a ruling: ARE SEPTIC TANK - EFFLUENT PUMP LOCATIONS REGARDED AS "SEWAGE LIFT STATIONS" PER MEMO OF APRIL 2, 1981? If so, a DEQ rule change will be necessary. And, we will hope that this can be made known, so others will not unknowingly market the non complying equipment.

Thank you for your time and consideration of our concerns. Should you wish to discuss this matter, I would be pleased to meet with you at nearly any time. We will hope for a prompt reply, as materials now on order are placed on hold.

Very truly,



W. C. Bowne, P. E.

WCB ts

Enclosures

cc: Mr. Bill Young, Director, Department of Environmental Quality
Mr. Cliff Morrison, Advanced Control Technology
Mr. Walt Warner, Warner Engineering
Mr. Jim VanDomelen, Department of Environmental Quality
Mr. Sherman Olson, Department of Environmental Quality
Office of State Fire Marshal

ORENCO SYSTEMS Inc.

1205 S.E. Court Avenue
 Roseburg, Oregon 97470
 503 673-0165

July 10, 1981

Mr. Sherman Olsen
 Department of Environmental Quality
 P.O. Box 1760
 Portland, OR 97207

Dear Sherman:

You will recall our recent conversations and that the State Fire Marshal has interpreted the code that sewage wet wells are a Class 1 Division 1 hazardous atmosphere (NEC Article 500). The State Electrical Inspector has buttressed this opinion, and by phone extended that interpretation to apply to the pumping of septic tank effluent at residences. A copy of the Fire Marshal memo is attached.

The electrical control panel we where building was to retail at \$250. The addition of intrinsically safe relays will add \$375 to the price. Additionally, the panel will be less reliable. If the resistance between terminals on the ISR falls to below 100,000 ohms, the ISR will trip. This happens due to condensation, or even fog. The ISR is rated for an ambient air temperature of 0°F to 120°F. The panels may be as hot as 160°F (or hotter), when in the direct sun. Temperatures colder than 0°F can be expected in Oregon. Intrinsically safe wiring should be twisted to avoid picking up "noise". And, it must be run in a separate conduit.

My personal view of a septic tank atmosphere is that it should not be classified as hazardous. The US EPA shares in this opinion. They regard sewage wet wells as Class 1 Division 1, but exempt individual home units. For further information, you may contact Mr. Jim Kreissl, Cincinatti, (513) 684-7614 or Mr. Jim Wheeler, Washington D.C. (202) 426-8976.

The On-Site Sewage Disposal Rules, DEQ March 13, 1981, contain requirements contrary to the State Electrical Inspectors position. In appendix E, part C, and appendix B II, part D 2, an easy means of electrical disconnect is required. I know of no practical way to accomplish this and also comply with Class 1 Division 1 requirements. The typical means would be to route the wiring through a sealed conduit to a pull box located outside the atmosphere, where a water tight, underground splice is made. In appendix E, part F, the State of Oregon DEPARTMENT OF ENVIRONMENTAL QUALITY

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ORENCO SYSTEMS Inc.

be 12 amps at 115 volts AC. This is in contradiction to hazardous location practice.

I urge you to discuss the matter with the State Electrical Inspector and State Fire Marshal. Hopefully, the interpretation that effluent pump wells at individual residences is hazardous can be revised to coincide with more common national practice (EPA). If this attempt is not successful, the DEQ rules will have to be changed. What will be done in the interim, in order to supply pumping equipment to meet both your requirements and theirs?

Once the matter is resolved, it is important that the rules be known state wide.

Please feel free to contact me if I can be of any assistance.

Very truly,



W. C. Bowne, P. E.

WCB ts

Enclosures

CC: State Fire Marshal
State Electrical Inspector
DEQ - Mark Ronayne
DEQ - Jim VanDomelen

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the Matter of the Adoption of) Statutory Authority,
Temporary Rule Amending) Statement of Need,
OAR 340-73-055) Principal Documents Relied Upon
) and Statement of Fiscal Impact

1. Citation of Statutory Authority:

ORS 454.625, which requires the Environmental Quality Commission to adopt such rules as it considers necessary for the purpose of carrying out OAR 454.605 to 454.745.

2. Need for the Rule:

Some of the requirements of OAR 340-73-055 conflict with the State Electrical Code for Explosive Atmospheres. At this time on-site sewage disposal systems utilizing electrical components cannot be approved legally. A temporary rule is necessary to alleviate the situation.

3. Documents Relied Upon in Proposing the Rule:

- a. Memo of April 2, 1981, to Walt Keyes, Chief electrical Inspector, from Pat Franzen, Chief Deputy
- b. Letter of June 10, 1981, from Orenco Systems, Inc. to Walt Keyes, Chief Electrical Inspector
- c. Letter of July 10, 1981, from Orenco Systems, Inc. to Sherman Olson of the Department of Environmental Quality

The above documents are available for public inspection at the office of the Department of Environmental Quality, 522 S.W. Fifth, Portland, during regular business hours, 8 a.m. to 5 p.m., Monday through Friday.

4. Fiscal and Economic Impacts:

Fiscal and economic impacts fall upon individual applicants for alternative systems which utilize electrical components. These individuals cannot use their systems until approved by the electrical inspector.

Date: August 12, 1981

William H. Young, Director
Department of Environmental Quality

XL457.A (1)

ATTACHMENT C

Proposed Amendments to OAR 340-73-055

EFFLUENT PUMPS, CONTROLS & ALARMS, AND DOSING SIPHONS

OAR 340-73-055

- (1) Pumps, Controls, and Alarms: Electrical components used in on-site sewage disposal systems shall comply with State of Oregon Electrical Code, and the following provisions:
 - (a) Motors shall be continuous-duty, single-phase with [built-in automatic reset-]overload protection. [on a separate starting winding.]
 - (b) Pumps shall have durable impellers of bronze, cast iron, or other materials approved by the Department.
 - (c) Submersible pumps shall be provided with an easy, readily accessible means of electrical and plumbing disconnect, and a noncorrosive lifting device as a means of removal for servicing.
 - (d) Except where specifically authorized in writing by the Director, the pump shall be placed within a corrosion-resistant screen that extends above the maximum effluent level within the pump chamber. The screen shall have at least twelve (12) square feet of surface area, with one-eighth (1/8) inch openings.

- [(d) Pumps shall be capable of passing a three-quarter (3/4) inch solid sphere, and have a minimum one and one-quarter (1 1/4) inch discharge.]
- [(e) Pumps shall be placed a minimum of six (6) inches above the dosing tank bottom.]
- (e) [(f)] Pumps shall be automatically controlled by sealed mercury float switches with a minimum mercury tube rating of twelve (12) amps at one hundred fifteen (115) volts A.C. or by an approved equivalently reliable switching mechanism. The switches shall be installed so that approximately twenty (20) percent of the projected daily sewage flow is discharged each cycle.
- (f) [(g)] An audible[.] and visual high water level alarm with manual silence switch shall be located in or near the building served by the pump. The audible alarm only may be user cancelable. Alarm and pump controls shall be on separate circuits. [If the alarm is located inside the building it shall be an audio-visual type of silence switch.] The [mercury float switch] switching mechanism controlling the high water level alarm shall be located so that at time of activation the dosing tank has at least one-third (1/3) of its capacity remaining for effluent storage.

[(h) An electrical permit is required for all electrical connections and components.]

[(i) When the projected sewage flow for the system exceeds twelve hundred (1200) gallons per day, or when the static lift is greater than one hundred (100) feet, the Department may exercise reasonable judgment in varying from the minimum pump requirements identified in this rule.]

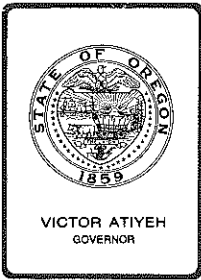
(2) Dosing Siphons. Dosing siphons used in on-site sewage disposal systems shall comply with all of the following minimum requirements:

(a) Shall be constructed of corrosion-resistant materials.

(b) Shall be installed in accordance with the manufacturer's recommendations.

NOTE: Underlined _____ material is new.

Bracketed [] material is deleted.



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. V , August 28, 1981, EQC Meeting

Request for a Variance from OAR 340-15-315(lb),
Veneer Dryer Visible Emissions; and OAR 340-21-015
and 340-21-020(1), Fuel Burning Equipment Visible
Emissions and Particulate Emissions, for Roseburg
Lumber Company's Dillard Mill Complex near Dillard

Background and Problem Statement

Roseburg Lumber Company owns and operates a wood products manufacturing complex consisting of a dimensional lumber sawmill's particulate board plant and plywood plant near the community of Dillard in Douglas County. The Company utilizes five hogged fuel boilers to supply heat energy and generate electrical power for the facilities. Air emissions from three of the boilers and seven veneer dryers are controlled by water using (and recirculating) systems (wet scrubbers).

On August 20, 1981, Roseburg Lumber Company submitted a request for temporary relief from Air Contaminant Discharge Permit Performance Standards and Emission Limits of all sources utilizing wet scrubber air emission controls. The company gave reasons that the source of wet scrubber make-up water, the South Umpqua River, has reached a critical point of minimum flow as prescribed by the State Water Resources Board. The company claims that as a result of the reduced water allocations, they will be faced with the necessity of drastically curtailing operations unless authorization is given by the Commission to operate certain air emission sources without benefit of existing wet scrubber air control units. Roseburg Lumber Company also indicates there would be an ultimate effect on all or part of the approximately 3,600 employees because of an economic upset should a system such as the steam boilers go down because of lack of operational water.

The Commission is authorized by ORS 468.345 to grant variances from the Department's rules if it finds that strict compliance is inappropriate because, among other options: conditions exist that are beyond the control of the persons granted such variance or strict compliance would result in substantial curtailment or closing down of a business, plant or operation.

Alternatives and Evaluation

The Roseburg Lumber Company Dillard Mill Complex has been operating in substantial compliance with the conditions of the Air Contaminant Discharge Permit. Total air emission control on those sources utilizing wet scrubbers cannot be maintained because of a lack of available water for operation. This condition became a reality on August 17, 1981 when the flow of the South Umpqua River reached the 1958 minimum flow of 60 cubic feet per second (cfs) set by the State Water Resources Board. Along with other water users, part of Roseburg Lumber Company's water appropriation rights was suspended.

Following a summer plant vacation shutdown, the company commenced to operate again on August 17, 1981. With concurrence of the Department's Southwest Regional office and the submittal of a variance request, the mills have been functioning with intermittent operation of wet scrubber air emission controls.

Because of the slowdown in the wood products industry, the plant has been operating at about 80% of normal capacity. A recent inspection disclosed that the boilers can operate at less than 40% opacity without scrubbers.

The company's position, as one of the largest industrial water users on the river, is that they should reduce their water withdrawal to the greatest extent practicable since other users are looking toward Roseburg Lumber Company "to lead the way".

The normal company use of river water is 1845 gallons per minute (gpm). The water is used as boiler feedwater make-up, cooling water make-up, glue mixing, washdown and air emission control equipment make-up. Eleven hundred sixty (1160) gpm are utilized in plant process operations and 685 gpm is accountable as air emission control systems make-up water.

The company's senior water-right, which pre-dates the 1958 minimum flow restriction, allows for the withdrawal of 1500 gpm. After 1160 gpm is used in process operations, the remaining 340 gpm of the appropriation could be available for air emission control requirements (685 gpm is necessary for all existing control units to function).

In order to satisfactorily preserve the normal function of the wet scrubbers, by preventing pitch build-up, Roseburg Lumber Company has found it necessary to use some water in the units from time-to-time. This is especially applicable to veneer dryer scrubbers.

There are no other water sources, such as wells, available to the company.

As a result of implementing the current State Water Resources Board ruling (1958 year minimum flow of 60 cfs), other water users are affected and include: the City of Canyonville, City of Glendale, South Umpqua Water Association, Clarks Branch Water Association, Roberts Creek Water District, and various agricultural irrigation systems.

Some municipalities and special use domestic water suppliers have initiated emergency water conservation measures. These include restrictions on watering lawns and washing of vehicles or buildings.

Roseburg Lumber Company, in past years, designed and constructed permanent facilities for conserving water through recirculation of cooling water, veneer dryer washdown systems, glue mixing and emission control devices.

At the July 29, 1977 EQC meeting, the Commission granted Roseburg Lumber Company a variance when a similar extremely low water situation occurred. At that time only part of the facilities' sources had achieved emission compliance and fewer wet scrubbers were effected. The variance was granted for 120 days. The river recovered to normal flow and emission controls were put back on line on September 26, 1977 (60 days from variance approval). During this period there were no public complaints or significant observable adverse effects on the area or air shed.

ORS 468.345 allows the Commission to grant a specific variance if conditions exist beyond the control of the source or strict compliance with the rule or standard would result in curtailment or closing down of the plant.

The following alternatives were considered:

1. Deny the variance request and require strict compliance with the rules and standards.

Such action could result in a substantial curtailment of plant operations. Air quality would be maintained and actually improved as fewer point sources would be emitting contaminant.

2. Grant a variance to temporarily suspend operation of part of the air emission control units. Require operation of units to the extent of maximum allowable water appropriation rights as dictated by the low flow criteria.

Visible and particulate air emissions would increase. The "excess" allowable water available for scrubber make-up water would be used to operate part of the emission control units. The river flows would be impacted slightly by use of the allowable water in the boiler scrubber.

3. Grant a variance to temporarily suspend operation of all wet scrubbers on boilers and veneer dryers.

This action would result in an increase of emissions from the plant site. The characteristic blue haze from veneer dryers would be present and particulate emissions from the hogged fuel boilers could double. There would be some benefit to river flows. Improved factors on such items as down stream water quality availability for other users and a more favorable environment for fish and other normal aquatic life would exist. The company would have the flexibility to use available water, as required, to maintain the wet scrubbers for normal operating conditions when stream flow becomes adequate.

Summation

1. Roseburg Lumber Company has requested a temporary variance from Visible Air Contaminant Limitations OAR 340-21-015 and OAR 340-25-315(1) and Particulate Matter Limitations OAR 340-21-020(1) for the Dillard mill complex located near Dillard in Douglas County.
2. Normal water withdrawals from the South Umpqua River, necessary for mill process operations and wet scrubber air emission control units, have been reduced as a result of the river dropping below the minimum flows established by the State Water Resources Board.
3. A recent observation of visible emissions from boiler no. 1 while operating without the benefit of wet scrubber emission controls demonstrated about 30% opacity. Based on experience of a similar conditional variance granted to the plant in 1977, the Department does not expect a critical air degradation situation or any public complaints.
4. Roseburg Lumber Company reports that strict compliance with air control standards would result in drastically curtailing operations.
5. The Commission has the authority under ORS 468.345 to grant a variance from a rule if conditions exist beyond the control of a company or if strict compliance would cause a substantial curtailment or closing of a plant.

Director's Recommendation

Based upon the findings in the Summation, it is recommended that the Commission grant a variance to Roseburg Lumber Company from

OAR 340-15-315(lb), Veneer Dryer Visible Air Contaminant Emissions; and
OAR 340-21-015, Visible Air Contaminant Emissions (Fuel Burning Equipment)
and OAR 340-21-020(1), Particulate Matter Emissions for Fuel Burning
Equipment, for the Dillard mill complex subject to the following
conditions:

1. The variance is valid, for whichever occurs first, 120 days commencing on August 28, 1981 or until flow conditions of the South Umpqua River are sufficient to allow full operation of the boiler and veneer dryer scrubbers.
2. Visible emissions from the boilers shall not exceed 40% opacity for more than three minutes in any one hour.
3. If the Department determines that emissions from the now uncontrolled boilers or veneer dryers are causing a significant adverse impact on the community or airshed, this variance may be revoked.



William H. Young

Attachments: Variance Request

FAS:a
AA1303 (1)
229-6414
August 26, 1981

ROSEBURG

LUMBER CO.

Reply to: P. O. Box 218
Coquille, OR 97423-0218
Phone: 396-2131

P. O. BOX 1088 · ROSEBURG, OREGON 97470 PHONE (503) 679-8741

August 19, 1981

TO: Environmental Quality Commission
c/o Department of Environmental Quality
1234 S. W. Morrison
Portland, Oregon 97205

FROM: Mr. Henry A. Dotter, Jr.,
Corp. Invironmental Systems Officer
Roseburg Lumber Company

SUBJECT: Variance to Roseburg Lumber Company -
Air Contamination Discharge Permit No. 10-0025.

The Dillard operations of the Roseburg Lumber Company located on and drawing water from the South Umpqua River is facing the very serious and urgent problem of partial or complete curtailment of its 3,600 employees unless it can reduce its water requirement.

The water flow of the South Umpqua River within the last two week period has been dropping at an alarming rate; having dropped from 77.5 cu. ft. per sec. to 52.7 cu. ft. per sec. within the last week, bypassing the 60 cu. ft. per sec., which until recently was set as the minimum allowable flow of the river by the Water Resources Board.

With the river level dropping as it is, and with no improvement in sight, it becomes imperative for water users along the river to drastically reduce their needs. Since Roseburg Lumber Company is the largest user of water at 1,845 GPM, all users along the river are looking toward Roseburg to lead the way. Without a reduction on our part, it is doubtful that others will do anything, thereby hastening the point of shutdown of the Dillard operation.

The Roseburg Lumber Company has installed water recovery facilities such as cooling ponds and reuse systems as a means of minimizing river water requirements, with the result that, of the total water drawn from the river, 56.9% is make-up water for its boiler systems, 37.1% is make-up water for the boiler and dryer scrubber systems, with only 6.0% used for other plant requirements.

August 19, 1981

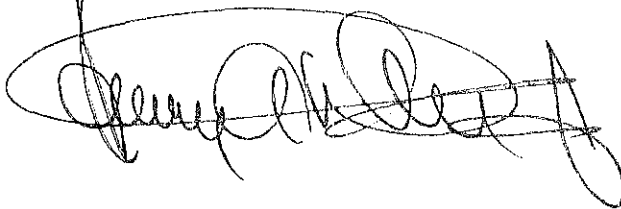
Since the boiler system produces steam to operate each of the plants on the facility, a reduction at this point creates a chain reaction which affects the productivity of other onsite operations and therefore is a mandatory part of a continued operation. This leaves the site scrubber systems, which utilize approximately 685 GPM to service nine boiler scrubbers and six dryer scrubbers, as the only area of reduction open to the operations without creating plant curtailment.

We are therefore respectfully requesting that the Environmental Quality Commission give serious consideration of a variance to Roseburg Lumber Company Air Contamination Discharge Permit No. 10-0025, allowing boiler and dryer operation without benefit of scrubber systems during the water-shortage emergency period.

I would like to stress again the fact that the South Umpqua River flow rate is extremely low and dropping fast, giving us very little time to present our case.

I want to thank each member of the Commission for allowing me to outline the immediate-urgent problem facing the Roseburg Lumber Company and sincerely hope that you find it in your power to issue the asked for variance.

Thank you.

A handwritten signature in dark ink, appearing to be "Henry H. [unclear]", written in a cursive style. The signature is enclosed within a large, hand-drawn oval.

ROSEBURG

LUMBER CO.

Reply to: P. O. Box 218
Coquille, Oregon 97423-0218
Phone: 396-2131

P. O. BOX 1088 · ROSEBURG, OREGON 97470 PHONE (503) 679-8741

August 19, 1981

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
AUG 24 1981

AIR QUALITY CONTROL

Department of Environmental Quality
Southwest Region
1937 W. Harvard Blvd.,
Roseburg, Oregon 97470

Attn: Mr. Ron Baker

Re: AQ - Douglas County
Roseburg Lumber Company
Permit No. 10-0025

Dear Mr. Baker:

The South Umpqua River at the point of Roseburg Lumber Company withdrawal, has now reached the critical point of minimal flow prescribed by the Water Resources Board. This means that, unless the Water Resources Board reduces the allowable minimal flow, Roseburg Lumber Company will be faced with the necessity of drastically curtailing operations unless it is given permission to operate without use of installed boiler and dryer scrubbers.

The lack of water in any onsite operation such as the boiler system for example, creates a chain reaction which affects the productivity of practically all other onsite operations, with the extent of curtailment of equipment and manpower dependent upon the severity of the water shortage; needless to say, any curtailment upsets the economic flow of the whole. Since Roseburg Lumber Company employs approximately 3,600 people on the Dillard site, all or part could be affected by a water-shortage created curtailment.

As you will note from the following breakdown of river water requirements at our Dillard operation, scrubber use requires approximately 37.1% of total water taken from river.

Boiler requirement (make-up water)	1050 GPM
Boiler scrubbers (a total of nine scrubbers on three boilers)	595 GPM
Dryer scrubbers (a total of six scrubbers on six dryers)	90 GPM
Miscellaneous plant use (including glue mixing water, cooling water make-up and washdown water make-up)	110 GPM
Total Requirement	<u>1845 GPM</u>

August 19, 1981

You are well aware of the water recovery facilities such as cooling ponds and reuse systems, used by Roseburg Lumber Company as a means of minimizing river water requirements, with the result that the primary part of our demand is make-up water to replace losses through evaporation.

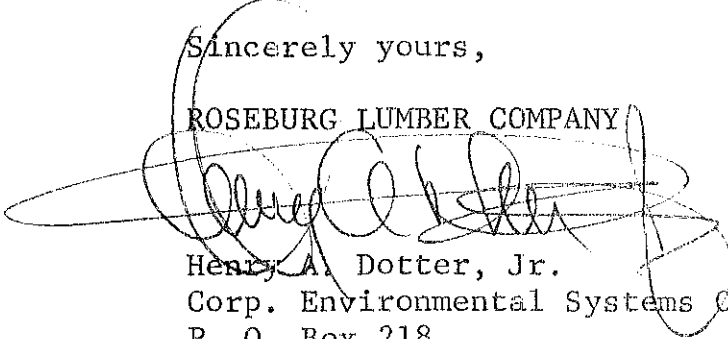
As previously indicated, the Roseburg Lumber Company at Dillard will be faced with a mandatory reduction in its necessary water supply by reason of minimal flow in the South Umpqua River, a reduction which will force the company into a drastic curtailment pattern, creating lay-off and operating conditions which could prove extremely hazardous to the area and company economies.

With this extremely unpleasant picture facing the Roseburg Lumber Company operations, we are herewith respectfully requesting that you give very serious consideration to the issuance of a variance to Air Contamination Discharge Permit No. 10-0025, permitting operation of our boiler without benefit of scrubbers during this period of emergency and further that the six Burley scrubber units now installed in our plywood plants be allowed to operate dry during this emergency period.

Your help in this matter is gratefully appreciated since the need is urgent. I would appreciate it greatly if you would forward the original of the attached memo to the EQC for further fast action. If more information is needed please contact me. Thank you for your consideration.

Sincerely yours,

ROSEBURG LUMBER COMPANY

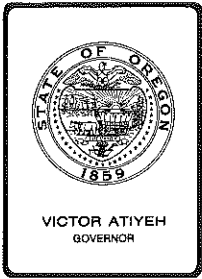


Henry A. Dotter, Jr.
Corp. Environmental Systems Officer
P. O. Box 218
Coquille, Oregon 97423-0218

HAD:rh

cc: John Knapp

encl. Letter to Environmental Quality Commission.



Water Resources Department

JUSTICE BUILDING, Rm. 104, ROSEBURG, OREGON 97470 PHONE 672-3311, Ext. 255

FIELD OFFICE: COOS COUNTY ANNEX, Rm. 117

270 NORTH CENTRAL, COQUILLE, OREGON 97423 PHONE 396-5342

August 21, 1981

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
AUG 25 1981

Don Neff
DEQ Air Quality Division
P.O. Box 1760
Portland, Oregon 97207

AIR QUALITY CONTROL

Dear Mr. Neff:

Flows of the South Umpqua River at the gage near Winston:
(measured in cfs and read at 0800 each day)

August 10	77.5
11	62.3
12	63.6
13	57.3
14	55.0
17	56.2
18	57.3
19	52.7
20	57.3
21	47.4

Sincerely,

Garyl Ball

Gary L. Ball
Watermaster, District #15

GLB/dd

No type

cc EJM
DN

8-21-81

FAS

HMP

AP- Douglas County Roseburg Lbr Co, Dillard

Ray Underwood called and advised that based upon his review of rules including upset/maintenance and malfunction that the only way to handle the water shortage/cutoff scrubber problem was the Variance Procedure.

Please prepare a report to EDC in accordance with prior note!

FAS

HMP

HMP's

8-21-81

cc EJW

AP - Douglas County Roseburg Lbr. Dillard
Variance Request - Water Shortage
EQC - item

Following our conversation on 8-20 I discussed
this matter with W.H.Y.

1. W.H.Y. is amenable to putting the variance request before the EQC. Before he makes a final decision, he wants to
 - (1) have received the variance request.
 - (2) be assured that there is no other alternative method of handling
 - (3) the exact status of Roseburg Lbr restriction. Is it in effect? Have boiler scrubbers been cut? Have V. Dryers been cut? If not when scheduled
 - (4) Estimated length of cut etc
 - (5) Impact & or extent of water shortage - i.e. cities, restaurant/commercial, industry, individuals.
 - (6) any other pertinent info.
 - (7) Ray Underwood's input
2. I called Ray Underwood and gave him the background. Ray appeared to be of the opinion that the upset condition / scheduled maintenance / malfunction of equipment rules would not be applicable. He will review the whole matter and get back to us on Monday for a final decision.
3. Don Neff is still looking for the letter. If the letter doesn't arrive by Monday noon - have Roseburg office dictate to Hazel for typing.

4. I told Don Neff to get in touch with Roseburg office and whomever else I find out impacts and or extent of water shortage etc.
5. Gary Grimes called & related that the Douglas County Health Officer had called him relative to water shortage. Some restaurants are using bottled water etc. He was calling us relative to this matter. I advised him of Roseburg ltr problems, that WNY had been advised etc.
6. Gary Grimes is coming in Thursday & could drive by Pillard to observe conditions at that time. I told Gary we would be back in touch with him and advise him of status.
7. Don Neff has gathered information & will be getting more & may be able to get Roseburg office to look at area (assessors on boilers & YDs are down) so Gary Grime may not have to look at unless you see benefit.
8. I told Don Neff a staff report (for any which way we go) would have to be prepared and he should be gathering information for it.

In summary it appears to me a Variance Request is forth coming & a staff report to the EOC will be required.

matter from becoming airborne. Such reasonable precautions shall include, but not be limited to the following:

(a) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;

(b) Application of asphalt, oil, water, or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;

(c) Full or partial enclosure of materials stockpiles in cases where application of oil, water, or chemicals are not sufficient to prevent particulate matter from becoming airborne;

(d) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;

(e) Adequate containment during sandblasting or other similar operations;

(f) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;

(g) The prompt removal from paved streets of earth or other material which does or may become airborne.

Stat. Auth.: ORS Ch.

Hist: DEQ 37, f. 2-15-72, ef. 3-1-72

Upset Conditions

Introduction

340-21-065 Emission of air contaminants in excess of applicable standards as a result of scheduled maintenance or equipment breakdown shall not be considered a violation of said standards provided the conditions of rules 340-21-070 and 340-21-075 are met.

Stat. Auth.: ORS Ch.

Hist: DEQ 37, f. 2-15-72, ef. 3-1-72

Scheduled Maintenance

340-21-070 (1) In the case of shutdown of air pollution control equipment for necessary scheduled maintenance, the intent to shutdown such equipment shall be reported to the Department at least twenty-four (24) hours prior to the planned shutdown. Such prior notice shall include, but is not limited to the following:

(a) Identification of the specific facility to be taken out of service.

(b) The expected length of time that the air pollution control equipment will be put out of service.

(c) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period.

(d) Measures, such as the use of offshift labor and equipment, that will be taken to minimize the length of the shutdown period, and where practical, minimize air contaminant emissions.

(e) The reasons that it would be impractical to shut down the source operation during the maintenance period.

(2) Additionally, in the case of maintenance scheduled more frequently than one time in a 90 day period, requiring shutdown of air pollution control equipment, or for any maintenance requiring shutdown of air pollution control

equipment for a time period longer than 48 hours, prior approval of the maintenance program may be required by the Department. Application for approval shall be submitted in writing within 30 days after a request by the Department and shall include, in addition to subsections (a) through (e) in section (1) of this rule, specific information as to the frequency and the necessity of the scheduled maintenance. Approval of the program by the Department shall be based upon a determination that the proposed maintenance schedule is necessary and that all reasonable precautions have been taken to minimize the extent and frequency of air contaminant emissions in excess of applicable standards.

(3) No scheduled maintenance resulting in the emission of air contaminants in violation of applicable standards shall be performed during any period in which Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency has been declared.

Stat. Auth.: ORS Ch.

Hist: DEQ 37, f. 2-15-72, ef. 3-1-72

Malfunction of Equipment

340-21-075 In the event that any emission source, air pollution control equipment or related facility malfunctions or breaks down in such a manner as to cause the emission of air contaminants in violation of applicable standards, the person responsible for such equipment shall:

(1) Notify the Department, by telephone or in person, of such failure or breakdown within one (1) hour of the occurrence, or as soon as is reasonably possible, giving all pertinent facts including the estimated duration of the breakdown.

(2) With all practicable speed, initiate and complete appropriate action to correct the conditions, and to reduce the frequency of such occurrences.

(3) Cease or discontinue operation of the equipment or facility no later than 48 hours after the beginning of the breakdown or upset period if the malfunction is not corrected within that time. The Director may, for good cause shown, which shall include but not be limited to, equipment availability, difficulty of repair or installation, and nature and amount of the emission, authorize the extension of the operation period beyond 48 hours under this section for a reasonable period of time as determined by him to be necessary to correct the malfunction or breakdown.

(4) In the event an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency is declared, or in the event the nature or magnitude of emissions from malfunctioning equipment is deemed by the Department to present an imminent and substantial endangerment to health, immediately proceed to cease or discontinue operation of the equipment or facility.

(5) Notify the Department when the condition causing the failure or breakdown has been corrected, and upon request, submit a written statement of the causes and the action taken to prevent future similar upset or breakdown conditions.

Stat. Auth.: ORS Ch.

Hist: DEQ 37, f. 2-15-72, ef. 3-1-72



STATE OF OREGON

INTEROFFICE MEMO

TO: L. D. Brannock

DATE: August 21, 1981

FROM: H. M. Patterson

SUBJECT: AP - Moving

This confirms that the schedule allows you to begin to move immediately and begin storing material in 4(a) etc.

In the event that you can't get moved to the new configuration and new location by Wednesday noon, SLE and I, with help from others, will assist you, but guidance will be needed as to where various materials should go.

The objective is to clear 21 (your current location) and arrange to the extent practicable in the new configuration. We will then be moving all that can be moved (without telephone company) tables, etc. from 25 (the current computer room) to 21 (new room).

I have already spoken to Jim Herlihy regarding moving out of Dave Berger to another location, but not directly to Dave yet.

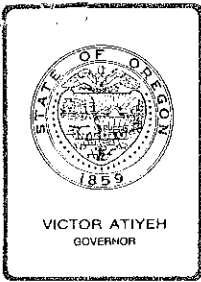
cc: Jim Boydston
Spence Erickson

ENVIRONMENTAL QUALITY COMMISSION

August 28, 1981

BREAKFAST AGENDA

- | | |
|---|----------------------|
| 1. EQC attendance at Goals & Objectives sessions | Young |
| 2. Discussion of OAR 340-71-130(11). (Case of home on one lot and sewage system on adjoining lot under same ownership.) | Somers/
Underwood |
| 3. Superfund - briefing | Reiter |
| 4. Field burning update | Weathersbee |



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Richard Reiter, Supervisor
Hazardous Waste Operations

Subject: Superfund - Briefing

Over the last two years, Region 10-EPA and DEQ have been trying to identify uncontrolled and/or abandoned hazardous waste sites in Oregon that may present an actual or potential hazard to public health or the environment.

As of March 31, 1981, 86 investigations had been started. In 56 cases we have concluded no actual or potential problem existed. Thirty investigations continue. In two of these cases, company-financed ground water monitoring programs have been installed, while in a third case a monitoring program is being proposed. Also, some 17 generators financed a voluntary cleanup of the former collection/treatment facility operated by Caron Chemical near Monmouth.

During the course of our on-going efforts, Congress passed the Comprehensive Environment Response Compensation and Liability Act on December 11, 1980 (commonly referred to as Superfund or CERCLA). CERCLA establishes a 1.6 billion dollar emergency response, removal and remedial action fund to clean up hazardous material/waste spills or threats to public health or the environment. CERCLA is not a grant program, however, in that EPA/Justice are to seek cost recovery from identified responsible parties.

CERCLA also contained a site notification requirement which to date has resulted in 42 submissions in Oregon. Investigations are being scheduled for the 31 sites that didn't duplicate ones previously investigated.

CERCLA intends that states play an active role in designating sites for cleanup; contracting with EPA for monitoring cleanup projects; assuring the availability of authorized disposal sites for cleanup debris; assuming the long-term maintenance of sites receiving remedial action and providing 10% cost share on any remedial cleanup projects.

The trigger on expending monies is EPA's publishing a revised National Contingency Plan (NCP) which will contain a prioritized listing of 400 sites in need of remedial action. If at all possible, the top 100 sites shall contain at least one site from each state. The list of 400 shall be revised annually.

By December 11, 1981, Oregon is to submit its list of potential sites, having ranked them according to a degree of hazard model developed by the Mitre Corporation under contract to EPA. The NCP will apparently require states to hold a "public meeting" for the purpose of receiving public comment on the list prior to submitting it to EPA.

Because of EPA's delay in publishing the NCP (was due in 180 days or June 11, 1981), our opportunities for public involvement are limited. Unless you direct otherwise, it would be our intent to bring this to the public's attention in the form of an action item at your November 20, 1981 meeting. Public notice on this item would follow standard procedures for EQC agenda items.

Under the time limitations, the only other option is to schedule a separate public hearing in advance of your November 20, 1981 meeting. In that case, the public would have two opportunities to comment, separated in time by 20-30 days.

RPR:o
ZO792 (1)

WRITTEN TESTIMONY

FOSTER & PURDY

ATTORNEYS AT LAW

P.O. BOX 1667 - 201 W. MAIN STREET, SUITE 4A
MEDFORD, OREGON 97501

TELEPHONE
A/C 503 770-5466

STUART E. FOSTER
WILLIAM G. PURDY
THOMAS D. MELLUM
KAREN C. ALLAN
GARY C. PETERSON
KEVIN A. BURRILL

May 4, 1981

Environmental Quality Commission
P. O. Box 1760
Portland, OR 97207

Re: Proposed plant site emission limit rule

Dear Commission Members:

Enclosed herewith please find an original and five copies of written testimony which is intended to supplement the oral testimony we presented to the commission on Friday, April 24, 1981.

Sincerely,



Stuart E. Foster

SEF/msd
Enc.

cc: Medford Corporation

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

R E C E I V E D

MAY 7 1981

OFFICE OF THE DIRECTOR

WRITTEN TESTIMONY OF MEDFORD CORPORATION
REGARDING THE PROPOSED
PLANT SITE EMISSION LIMIT RULE

MAY 1, 1981

THE DISCUSSION CONTAINED HEREIN IS LIMITED TO THE IMPACT OF THE PROPOSED PLANT SITE EMISSION LIMIT RULE (PSEL) ON THE MEDFORD-ASHLAND AQMA (AQMA).

APPROXIMATELY ONE YEAR AGO MEDFORD CORPORATION FILED A PETITION FOR A DECLARATORY RULING IN REGARD TO THE APPLICATION OF THE PSEL RULE CONTAINED IN DIVISION 30 OF OAR CHAPTER 340. SUBSEQUENTLY WE HAVE HAD NUMEROUS MEETINGS WITH STAFF IN AN ATTEMPT TO WORK OUT A RULE THAT IS MUTUALLY ACCEPTABLE TO BOTH STAFF AND MEDFORD CORPORATION. WE APPRECIATE THE COOPERATION OF THE STAFF AND FEEL THAT WE HAVE MADE SUBSTANTIAL PROGRESS.

WE HAVE NO PROBLEM WITH THE CONCEPT OF PLANT SITE EMISSION LIMITS. WE DO HAVE A PROBLEM WITH THE PROPOSED RULE AS IT IS PRESENTLY DRAFTED.

UNDER THE PROPOSED RULE PSELS WOULD BE BASED ON ACTUAL EMISSIONS OR THE EMISSION LIMITS SET FORTH IN THE SIP, WHICHEVER IS LOWER. SUCH A RULE PUNISHES THE RESPONSIBLE PROGRESSIVE COMPANIES THAT AS OF 1977 AND 1978 HAD PLACED POLLUTION CONTROL EQUIPMENT ON-LINE. IT REWARDS THE FOOT DRAGGERS WHO HAVE DELAYED THE INSTALLATION OF THEIR POLLUTION CONTROL EQUIPMENT.

THE OTHER CRITICAL FACTOR IN THE PROPOSED RULE IS THAT IT IS BASED UPON THE AVERAGE PRODUCTION OF THE FACILITY DURING THE BASE LINE PERIOD. SUCH A RULE IS WASTEFUL OF PLANT CAPACITY

AND OF THE CAPITAL INVESTMENT MADE BY INDUSTRY IN ITS PLANTS. A FACILITY MAY OR MAY NOT BE RUNNING AT DESIGN CAPACITY DEPENDING UPON MANY FACTORS, NONE OF WHICH WOULD BE CONSIDERED TO BE "HIGHLY ABNORMAL MARKET CONDITIONS." FOR EXAMPLE: A PLANT MAY BE OPERATING AT LESS THAN DESIGN CAPACITY BECAUSE OF PRODUCT MIX, OR BECAUSE OF A GENERAL SOFTENING OF THE MARKET OR BECAUSE OF NORMAL OPERATIONAL PROBLEMS.

AVERAGING COMPOUNDS THE PROBLEM IN THAT IF THE MILL OPERATED AT DIFFERENT PRODUCTION LEVELS IN 1977 AND 1978 THE AVERAGING WILL RESULT IN A REDUCTION IN THE ALLOWABLE PRODUCTION BELOW THAT OF THE HIGHER OF THE TWO YEARS.

THE CAPITAL INVESTMENT MADE BY MEDFORD CORPORATION AND OTHER COMPANIES IN THEIR INDUSTRIAL PLANTS AND THEIR POLLUTION CONTROL EQUIPMENT WAS MADE ON THE BASIS THAT SUCH PLANTS COULD BE OPERATED AT THEIR DESIGN CAPACITY. THE PROPOSED RULE IN MOST CASES WOULD RESULT IN THE LOSS OF A PORTION OF A PLANT'S CAPACITY. OF CRITICAL IMPORTANCE IS THE FACT THAT IT IS THAT SAME MARGIN THAT COULD VERY WELL MEAN THE DIFFERENCE BETWEEN MAKING A PROFIT OR A LOSS.

IT IS ABSOLUTELY CRITICAL TO THE OPERATIONS OF MEDFORD CORPORATION THAT THE COMPANY BE ABLE TO OPERATE ITS FACILITIES UP TO THE CAPACITY TO WHICH THEY WERE DESIGNED IN 1978 PLUS ANY ADDITIONAL CAPACITY WHICH WAS APPROVED BY THE DEPARTMENT SUBSEQUENT TO 1978.

MEDFORD CORPORATION HAS NO PROBLEM WITH A PSEL RULE IF THE PLANT SITE EMISSION LIMIT IS DETERMINED BY MULTIPLYING

THE APPROPRIATE EMISSION FACTOR SET FORTH IN THE SIP BY THE 1978 PLANT CAPACITY OF THE SOURCE PLUS ANY NEW CAPACITY APPROVED BY THE DEPARTMENT AFTER 1978.

PLANT CAPACITY SHOULD BE DEFINED AS FOLLOWS: THE MAXIMUM POTENTIAL HOURLY PRODUCTION OF A SOURCE IN 1978 MULTIPLIED BY THE NORMAL OPERATING HOURS OF THE SOURCE DURING THE 1977-78 BASELINE PERIOD. FOR EXAMPLE, IF THE SOURCE NORMALLY OPERATED ON A THREE-SHIFT FIVE DAY-A-WEEK BASIS DURING THE BASELINE PERIOD, THE NORMAL WEEKLY OPERATING HOURS OF THE SOURCE WOULD BE 120.

SUCH A RULE CREATES AN OBJECTIVE TEST THAT DOES NOT PUNISH THE GOOD GUYS, DOES NOT PENALIZE THE MILLS THAT OPERATED AT LESS THAN FULL CAPACITY FOR VARIOUS REASONS IN 1977-78, IS CONSISTENT WITH THE PROVISIONS IN THE PROPOSED RULE ON NEW SOURCES AND CAN BE APPLIED AND ENFORCED ON AN EQUITABLE BASIS.

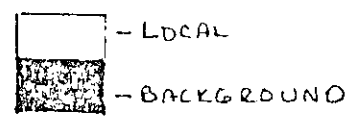
AS WE POINTED OUT IN THE HEARING, THIS MATTER SHOULD BE PLACED IN ITS PROPER PERSPECTIVE IN REGARD TO THE CURRENT TSP PROBLEM IN THE AQMA. WE HAVE ENCLOSED WITH THIS TESTIMONY TWO PIE CHARTS DEVELOPED BY THE DEPARTMENT SHOWING INDUSTRY'S SHARE OF TSP IN 1984 ASSUMING ALL CONTROLS MANDATED IN THE PRESENT SIP ARE INSTALLED AND NO OTHER STRATEGIES ARE DEVELOPED.

AS YOU CAN SEE FROM THE PIE CHART ON TOTAL EMISSIONS, 10.7% OF THE TOTAL PARTICULATE PROBLEM IS ATTRIBUTABLE TO INDUSTRIAL EMISSIONS OF WHICH 1.8% IS BACKGROUND INDUSTRIAL EMISSIONS. IN COMPARISON, VEGETATIVE BURNING, WHICH INCLUDES WOOD STOVES, ACCOUNTS FOR 39.3% AND SOIL AND ROAD DUST, 30.9%.

THE PIE CHART ON RESPIRABLE PARTICLES INDICATES THAT INDUSTRY WILL CONTRIBUTE 11.6% AND VEGETATIVE BURNING (WOOD STOVES) WILL CONTRIBUTE 55.9%.

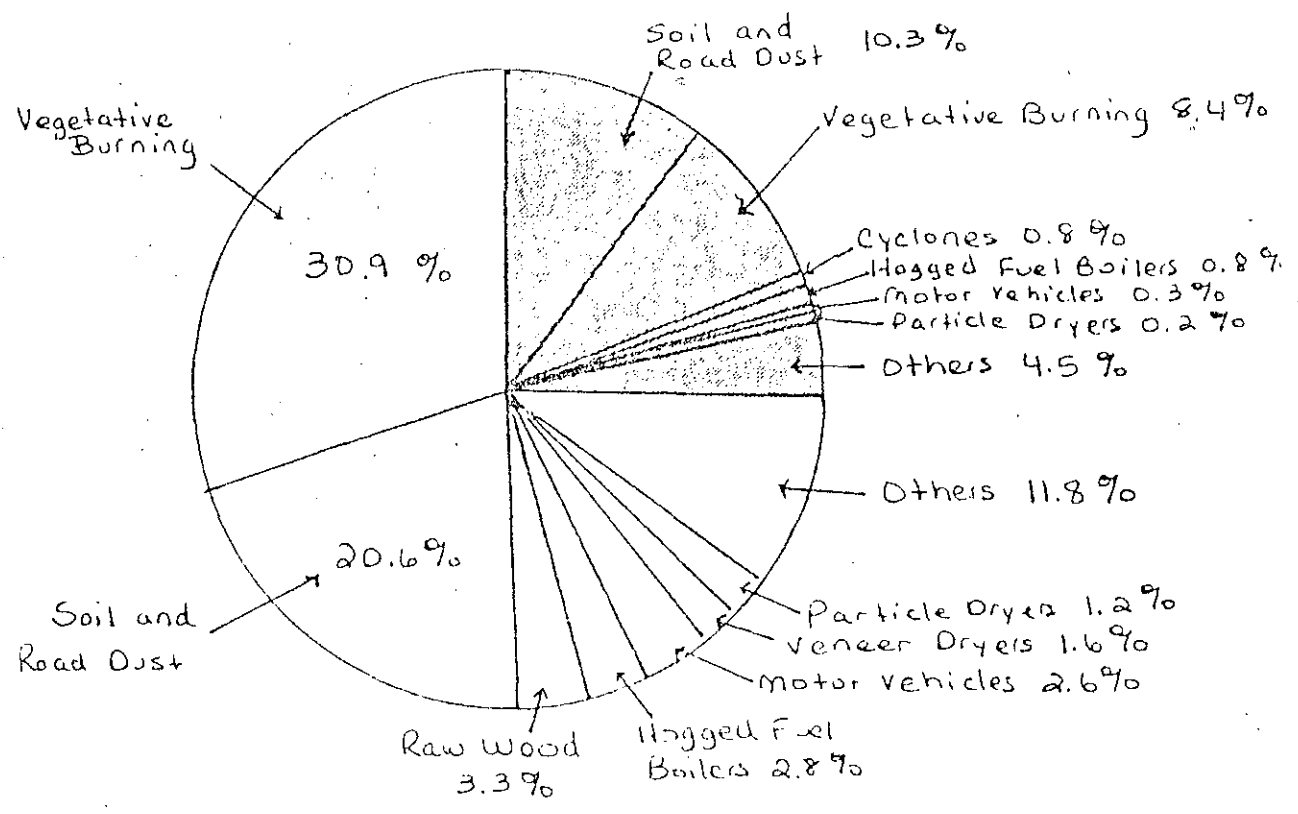
IT IS OUR BELIEF THAT THE RULE AS PROPOSED BY MEDFORD CORPORATION WOULD HAVE LESS THAN A ONE PERCENT IMPACT ON THE TSP EMISSIONS IN THE AQMA. THE DEPARTMENT'S PROPOSED RULE WOULD HAVE A FAR-REACHING IMPACT ON THE PROFITABILITY OF INDUSTRY IN THE AQMA.

1984 ANNUAL TSP - DOWNTOWN MEDFORD



TSP WITHOUT RECOMMENDED STRATEGIES *

TSP = 93.3 $\mu\text{g}/\text{m}^3$

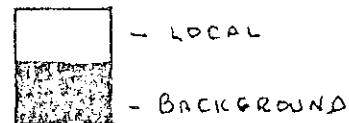
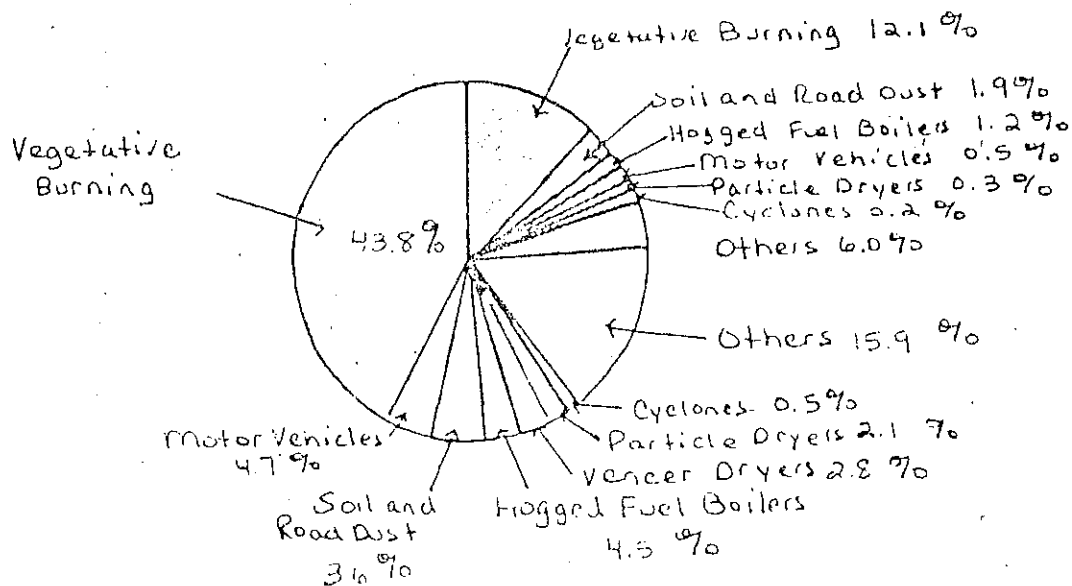


* Includes Adopted Strategies From 1978 SIP

1984 ANNUAL RESPIRABLE PARTICULATE (RP) DOWNTOWN MEDFORD

RESPIRABLE PARTICULATE WITHOUT RECOMMENDED STRATEGIES

RP = 53.8 $\mu\text{g}/\text{m}^3$



* Includes Adopted Strategies from 1978 SIP



Jackson County Oregon

COUNTY COURTHOUSE / MEDFORD, OREGON 97501

BOARD OF
COUNTY COMMISSIONERS
Commissioners Office 776-7231

April 29, 1981

Mr. Joe Richards, Chairman
Environmental Quality Commission
P.O. Box 1760
Portland, Oregon 97207

Dear Mr. Richards:

The Jackson County Board of Commissioners, after reviewing the Department of Environmental Quality's proposal for new source review rules, plant site emissions limits, prevention of significant deterioration, and the banking of emission reduction credits, would like to submit for the record the following comments:

- 1) We oppose the banking of emission reduction credits from sources within the Medford-Ashland airshed, until approved attainment strategies are adopted.
- 2) We support the bubbling concept as being environmentally and economically compatible, however, the plant site emission limits should be based on the plant's potential to emit at design capacity during the 1977-78 time period.
- 3) We oppose the inclusion of the Medford area volatile organic compound growth increment until an attainment strategy for the state ozone standard has been adopted.
- 4) We support the Department of Environmental Quality's assuming the prevention of significant deterioration (PSD) permit program from the Environmental Protection Agency.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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OFFICE OF THE DIRECTOR

Mr. Joe Richards
Environmental Quality Commission
April 29, 1981
Page 2

5) We recommend the following amendments to the proposed PSD program:

A) Significant emission rates, Table I, page 11, should be established for each of the state's airsheds to reflect each airshed's ability to assimilate those emissions.

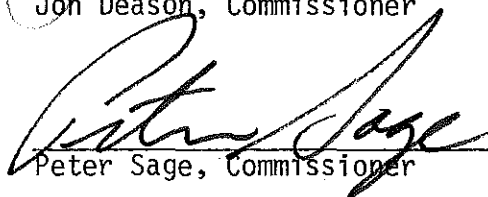
B) The state PSD rule, like the state offset rule, should have more stringent criteria for application in, or near, the Medford-Ashland Air Quality Maintenance Area.

We urge these suggestions be worked into the proposals being considered. We appreciate the opportunity to provide these comments.

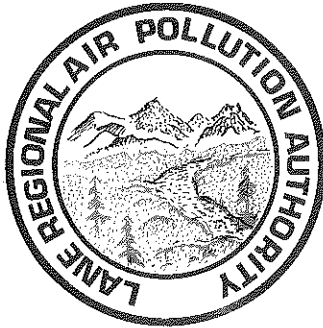
Sincerely,

JACKSON COUNTY BOARD OF COMMISSIONERS


Jon Deason, Commissioner


Peter Sage, Commissioner

JD/PS/cf



May 1, 1981

MEMORANDUM

TO: Environmental Quality Commission
FROM: Donald R. Arkell, Director, Lane Regional Air Pollution Authority
SUBJ: Proposed Rules - Plant Site Emission Limits and New Source Review

The following is a summary of LRAPA's position on the above referenced rule making.

- I. Adoption of PSEL and NSR Rules. LRAPA urges adoption of the proposed rules, incorporating the concepts of Offsetting, Bubbling, and emission reduction credits (Banking). It is LRAPA's intent to incorporate similar provisions into its own rules, as the foundation for the emissions growth management portion of the AQMA Plan.
- II. Need for Flexibility in AQMA's.
 - A. Emission Growth from Non-Major Sources. It is probable that most new or expanded industrial sources locating in the Eugene/Springfield AQMA, after application of HBPT, BACT, or LAER, will fall into the non-major source category (less than 10 T/Y particulate emissions). If so, the NSR provisions should be extended to include these sources in the AQMA, in order to manage the kinds of emissions growth most likely to occur.

It is recommended that where a need is determined, NSR requirements extend to non-major sources. We suggest that the following phrase be inserted at 340-20-220, paragraph 2, after the first sentence: "..., except where determined necessary in AQMA's to implement the emissions growth management plans."
 - B. Additional Requirements for Sources in AQMA's. It is recommended that language be inserted to allow for policy development as the New Source Review process is implemented. At 340-20-240, following the first sentence, "Additional Reasonable requirements may be added, consistent with approved emissions growth management plans in non-attainment areas."

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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- C. Demonstration of Net Air Quality Benefit. Strict adherence to the provision which allows respirable particulate of less than 3ug to be offset only with particulate in the same size range places severe limits on availability of emissions offsets in non-attainment areas. Similar limitations would occur in Banking and Bubbling. There is very little regulatory basis for Fine Particulate control.

What is presently required is to demonstrate Reasonable Further Progress, and finally attainment of a Total Particulate standard, as measured by the High-Volume sampler. Sources of particulate which contribute to non-attainment or which impact PSD increments should be eligible for use as offsets.

Nonetheless, fine particulates are of much greater concern because of health effects, and there is a clear need for a regulatory foundation which defines limits of fine particulate. There is justification for dealing with the perceived health problem, even though its magnitude has not yet been defined.

It is recommended that:

- 1) For the time being, the requirement for absolute Fine Particulate offset be discretionary - to be preferentially required when available;
- 2) If the applicant demonstrates non-availability from similar sources, an appropriate offset ratio (1.5 to 1) be required; and
- 3) Dissimilar point sources and fugitive sources such as paved and unpaved roadways, street cleaning programs be allowed for use as offset.

These requirements could be adjusted, as appropriate, once a standard for Fine Particulate is established and the status of attainment or non-attainment determined.



CrownZellerbach
Environmental Services

WBY Young
EQC
Weathersbee

May 1, 1981

Mr. Bill Young
Department of Environmental Quality
P. O. Box 1760
Portland, Oregon 97207

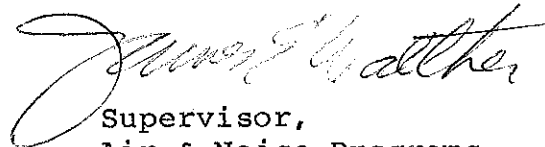
Dear Mr. Young:

Please find attached further testimony regarding the Plant Site Emission Limit and New Source Review Regulations.

I appreciate the extended period to submit written testimony allowed by the Commission and hope that this information will prove beneficial in allowing all parties concerned to arrive at a fair and equitable set of regulations.

Very truly yours,

JAMES E. WALTHER/lg


Supervisor,
Air & Noise Programs

cc:
Dr. H. R. Amberg - ESD

Attachment

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
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OFFICE OF THE DIRECTOR

Public Testimony Regarding the Proposed State of Oregon
Department of Environmental Quality Plant Site Emission
Limit (PSEL) and New Source Review Regulations.

After attending the Commission meeting on April 24, 1981, and listening to all the testimony that was provided by concerned industries, civic and municipal organizations, environmental groups and private citizens, it was not appropriate to prolong the oral testimony at that time with comments from Crown Zellerbach. However, the Company feels that several important points need still be made to assist the Commission in developing a responsible position on these proposed regulations.

First, there is no federally mandated justification for a Plant Site Emission Limit (PSEL) Regulation. In fact, EPA purposely avoided such remedial regulations in their August 7, promulgation of the present PSD program. The following quote is from the preamble of those promulgated regulations:

"At present, increment violations due to allowed but unreviewed emissions increases and consequent construction delays are only potential problems. EPA has therefore concluded that it is premature to promulgate remedial regulations to prevent such theoretical violations. EPA, however, encourages States to be alert to emissions increases that affect the increment. EPA urges States to closely monitor emissions increases from baseline sources and from new or modified sources not subject to PSD review which affect the available increment. States should consider requiring sources to report any emissions increases after the baseline date, including increases reflecting changed operating conditions that will continue for an extended period of time, perhaps six months. States would then learn of increases that consume increments and could take those increases into account in PSD permit reviews and periodic increment assessments. In addition, states are encouraged to revise SIP's and/or issue operating permits so that SIP requirements and permits reflect actual source operating conditions. This will protect against large unreviewed emissions increases. While EPA is not promulgating a reporting requirement today, it will reconsider the need for a notification system if it finds that unreviewed emissions increases are causing or contributing to increment violations.

Source: Federal Register, Volume 45, No. 154, Thursday, August 7, 1980, Rules and Regulations, page 52721.

In the preceding paragraph EPA "urges States to closely monitor emissions increases from baseline sources....." This is already being done as a result of most present permit reporting requirements. If needed, a simple PSD based notification procedure could be developed without the complex and confusing ramifications of the present proposed PSEL rule.

Most commenters objected to the PSEL rule because of its' inequity between new and existing sources which is primarily based on existing sources losing their presently permitted potential to emit. Unfortunately, an example of unabated ambient air standards violations was given as a probable result of sources being allowed their presently permitted potential to emit. This is not a good representation of the facts. Figure 1 illustrates the impact of a well controlled facility in an attainment area for any pollutant and represents the general case for many wood products facilities in the State of Oregon. The present proposed PSEL rule would limit an existing source to the actual baseline emissions. Most commenters wanted the presently permitted potential to emit, and the Northwest Pulp and Paper Association (NWPPA) proposed a compromise between the two - allowing for a PSEL to be established 20% above the baseline emissions as long as this did not exceed the potential to emit.

Ideally, the Department should establish and adopt rules which track PSD increment consumption but which do not indiscriminately rescind presently permitted conditions of source operation. The present proposed PSEL rules have the potential to unnecessarily restrict the operations of existing sources and cause significant financial and administrative burdens on industry and government alike. Excess boiler capacity was permitted and installed at our Wauna Mill to allow for future converting operations or to generate electrical power if needed. This industrial capacity could be lost or subject to time delaying and expensive permit procedures which could discourage such cogeneration projects or other plant expansions. The compromise, reconstructed PSEL rule proposed by NWPPA will ease but not alleviate the burden of the PSEL rule; however, it provides a system that is workable.

Finally, the proposed banking system received much criticism with little substance offered for improvement. Nationwide, there are three Emission Reduction Credit (ERC) banks in operation today. Some of their progressive features directly respond to much of the criticism presented at the public hearing.

To give the Commission some perspective regarding banking in other areas, the Company sites the following examples:

Many commenters responded unfavorably to the lack of security and guarantees in the proposed Oregon bank. The Bay Area Air Quality Management District (BAAPCD) responded to this problem by creating a regulatory relief provision in their bank. For the first three years of ERC deposit, the credits are exempt from any discounting, modification or alteration. After the exemption period the ERC's are subject to any non-attainment strategy development such as a uniform discounting procedure.

Many commenters felt that the time limit on deposits represented a disincentive to banking. Puget Sound has responded to this problem by auctioning off the unused ERC's after eight years of deposit with the proceeds reverting to the original owner. The auction process permits a retribution to the original owner at the fair market value and enables an Air Quality Management District to acquire ERC's for attainment plans in a fair and equitable manner.

Commenters also mentioned that the "good guys", the industries that cleaned up early, are being penalized by the proposed PSEL and NSR rules. In order to provide relief for these good guys, Puget Sound has allowed applications for ERC's retroactively to 1977. To qualify for an ERC the reduction in emissions must be actual and greater than that required for compliance with the State Implementation Plan or Puget Sound rules and regulations. As an example, a source in 1978 which was required to meet .1 gr/scf on a boiler stack (which was equivalent to 250 tons/yr at normal operating conditions) but which met .05 gr/scf may receive an emission reduction credit of 125 tons/year. Without the retroactive credit, the source is in effect penalized for doing better than required.

In summary, the Company understands what the DEQ is trying to accomplish with the proposed Plant Site Emission Limit and New Source Review Rules. However, we believe that there are more equitable and efficient ways to accomplish the desires of the Department without unduly complicating and burdening both the air quality staff and industry. We are willing to assist the Department in developing regulations which provide for the protection of human health and welfare, yet treat industry in a fair and equitable manner.

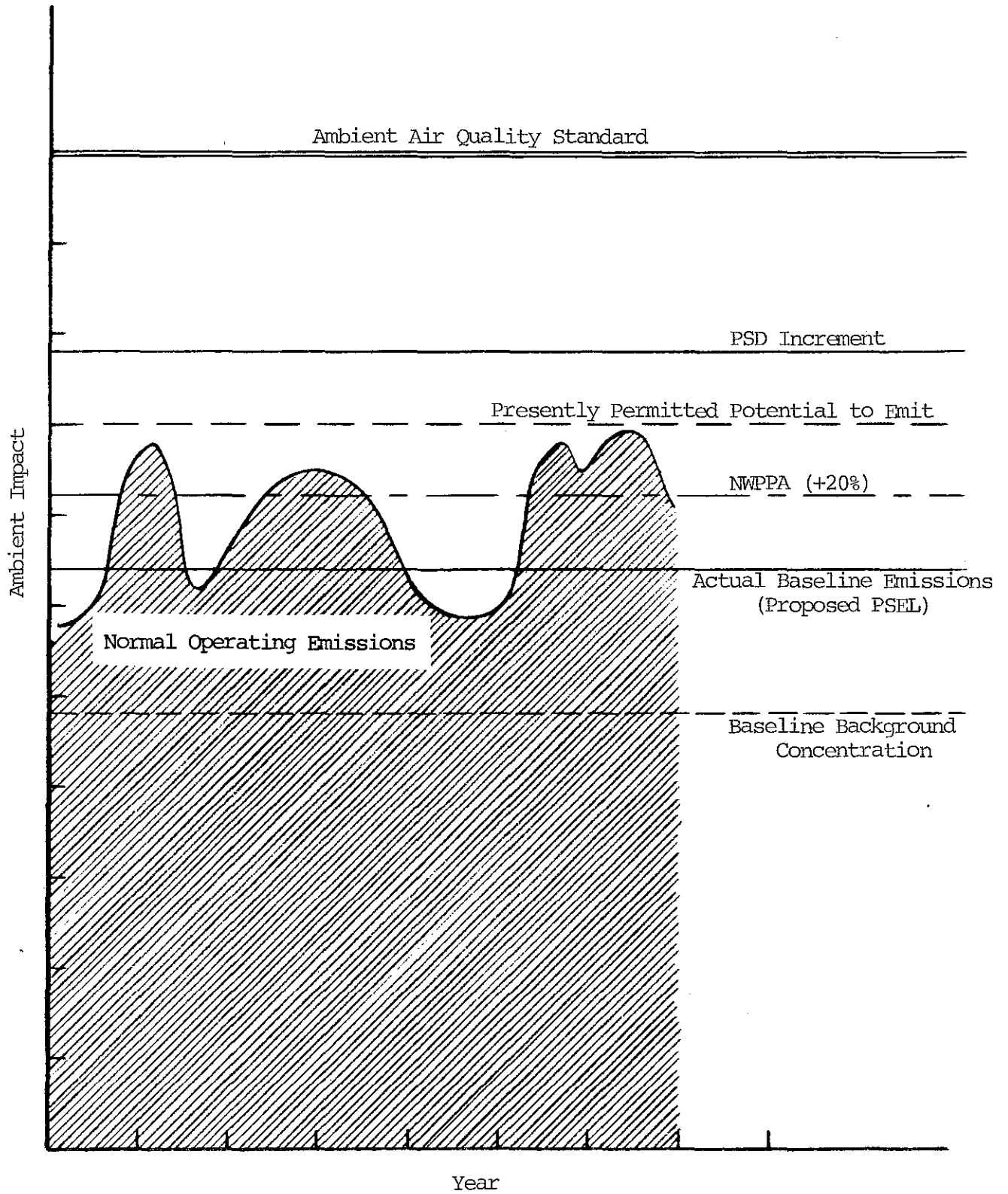


Figure I: Example Air Quality Impact in Attainment Area

Simpson

Simpson Timber Company

Chemicals Division 2301 N. COLUMBIA BLVD., P.O. BOX 17307
PORTLAND, OREGON 97217 (503) 289-1111
TWX-910-464-5063

May 1, 1981

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
MAY 6 1981

AIR QUALITY CONTROL

Dept. of Environmental Quality
Air Quality Division
Box 1760
Portland, Or. 97207

Gentlemen:

The attached is written testimony to accompany the record of Public Hearing, agenda item L., Environmental Quality Commission meeting April 24, 1981.

Sincerely,



John H. Ruddick
Environmental Manager

/dw

cc: Wayne Meek
Ted Reeve

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 4 1981

OFFICE OF THE DIRECTOR

SIMPSON TIMBER COMPANY
Chemicals Division
2301 N. Columbia Blvd.
Portland, Oregon 97217

The following is written testimony to accompany the record of Public Hearing, Agenda item L., Environmental Quality Commission meeting April 24, 1981.

We are concerned with the disallowance of emission reduction credits for selected categories of VOC sources in the Portland special Air Quality Maintenance area, as expressed in proposed OAR 340-20-280.

It is our understanding that, to date, the Portland AQMA has logged 2 consecutive years in which no violations of the National Ambient Air Quality Standard for Ozone has been violated and it is our understanding that a repetition of this performance in the upcoming summer season will adequately demonstrate compliance of this airshed with the NAAQS for ozone.

According to data presented by the Metropolitan Service District, 12/15/80, the attainment of these standards may have been due, in part, to 1) moderate ambient atmospheric conditions, 2) decreased manufacturing activity, 3) decreases in transit and stationary source VOC emissions and 4) an adjustment to the calibration procedure involved in the ambient air monitoring technique for ozone.

From these considerations, and from the negative slope of the graph of ozone concentration vs. time, we feel that the data does not support the conclusion that Portland will continue to be classified as an ozone non-attainment area. If this is indeed the case, a more stringent State implementation plan for VOC control is unnecessary. Promulgation at this time of regulations that disallow emission reduction credits and their banking is unwarranted and will present unnecessary restrictions on business.

Since the data for the 1981 summer season should be in hand by the end of 1981, we propose that OAR 340-20-280 be stricken from the proposed regulations and its adoption deferred until such time as the data indicates that a more stringent SIP is required. This could be accomplished without additional rule making since the discounting of reduction credits required by new, more stringent air quality regulations as expressed in proposed OAR 340-20-265 paragraph 5 would allow the ready adjustment of any and all VOC sources, without the needless redundancy of OAR 340-20-280.



Port of Portland

Box 3529 Portland, Oregon 97208
503/231-5000
TWX: 910-464-6151

June 3, 1981

Mr. Joe B. Richards
Environmental Quality Commission
P.O. Box 1760
Portland, OR 97207

Dear Mr. Richards,

At the April 24, 1981 Environmental Quality Commission meeting commission members requested that a workshop be held with the Department of Environmental Quality staff to address questions raised at the meeting regarding DEQ's New Source Review Rule and Plant Site Emissions Limit Rule. These are scheduled for adoption at the June 5, 1981 EQC meeting.

DEQ has not held a workshop and has instead scheduled a workshop session to be held during the June 5 meeting. DEQ staff has not stated if public comment will be allowed at this meeting. Due to the length and complexity of the testimony presented at the April 24 hearing, we believe it is critical that the Commission allow public comments at the June 5 meeting.

Sincerely,

I. James Church
Deputy Executive Director

cc: Bill Young
Lloyd Kostow

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101



EPA 45 625

JUN 8 1981

William H. Young
Director
Department of Environmental Quality
P.O. Box 1760
Portland, OR 97207

JUN 08 1981
Region Operations Office
P.O. Box 1760
Portland, OR 97207

Dear Bill:

We greatly appreciate the opportunity to have worked with your staff in the development of your new source review, bubble and banking program. We feel that the DEQ has prepared an exceptional and innovative approach to managing air quality. With the correction of only three problems which are discussed in Enclosure 1, the May 15, 1981 draft regulations can be approved by EPA as revisions to the Oregon SIP. There are also several areas of your program which we feel are approvable but for which we will need to develop a demonstration of equivalency with the help of your staff. These are discussed in Enclosure 2. Finally, many aspects of the DEQ program have been designed to satisfy EPA requirements which have been or soon will be proposed for revision. Although final approval of the DEQ program may have to await final EPA action on these revisions, we intend to expeditiously approve your program, acting concurrently with the national changes and if necessary (and possible) proposing the national policy change as part of the Oregon approval action.

It is our understanding that the DEQ wishes EPA to approve the New Source Review Regulation (including Emission Reduction Credit Banking), the Plant Site Emission Limit Rules (including Alternative Emission Control) and the Air Contaminant Discharge Permit Rules so that nearly all State actions taken under these programs are recognized as federally enforceable upon issuance, thereby eliminating the current requirement for case-by-case SIP revisions. The only situations under these programs which would continue to require separate SIP submittals would be true SIP relaxations (including variances) and Alternative Emission Controls (bubbles) for sources with Plant Site Emission Limitations greater than 100 tons per year for TSP and SO₂. All other situations (netting or voluntary controls for new source review, offsets for nonattainment permits, banking emission reductions and most bubbles) will no longer need EPA approval as SIP revisions.

127

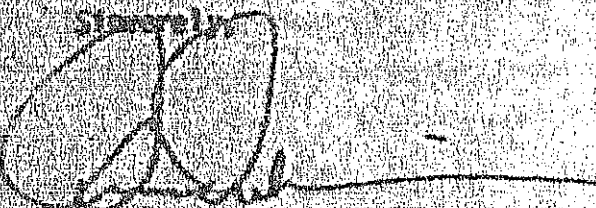
Our approval action will therefore be premised on the following:

1. Since EPA will no longer be individually approving each of these State actions which revise the SIP, we will need to receive information copies of each action in order to have available to EPA and the public the current SIP requirements for each source. We understand that the DEQ will promptly provide us with all Air Contaminant Discharge Permits which are issued or revised pursuant to the final EPA approved regulations.
2. Since EPA will no longer be providing a public comment period through the Federal Register on these actions, the state must provide the opportunity for comment. Although the Air Contaminant Discharge Permit rules do not contain such a requirement, we understand that the DEQ will continue to follow its Notice Policy (OAR 340-20-150) and provide an opportunity for comment on each permit.
3. The DEQ program must require as a condition of the PSD permit, compliance with all applicable SIP, NSPS and NESHAPs requirements. However, the DEQ regulation (OAR 340-20-235) only requires compliance with DEQ regulations and NSPS and NESHAPs programs for which the state has requested and received delegation. We understand that the DEQ will retain up-to-date delegation of all NSPS and NESHAPs and that if proposing to relax the federally approved SIP (i.e. new DEQ requirements would be less stringent than the current SIP) would continue to require compliance with the current SIP until such time that the relaxation is approved by EPA.

Again, I wish to compliment you and your staff for combining several complicated Clean Air Act programs into a unified and workable program. The resolution of those problem areas identified in Enclosure 1 will allow us to approve the regulations. Some additional comments on changes which we feel may strengthen the regulations, but are not necessary for our approval, are contained in Enclosure 3.

If you have any questions or desire any assistance in resolving our few remaining concerns, please do not hesitate to call me.

Sincerely,



Charles P. Dubois
Regional Administrator

gog?

ENCLOSURE 1

The following concerns must be adequately resolved in order for the regulations to be approved:

1. An important requirement for emission trades within and between sources (bubbles and offsets), is that the traded emissions have the same or reduced impact on ambient air quality. The DEQ rules require such in 340-20-315(3) and 340-20-260 but fail to include provisions as to how it is to be demonstrated. The DEQ rules must require appropriate dispersion modeling for TSP and SO₂ trades with a sophistication which is dependent upon the type and location of the trades involved.
2. Existing sources in nonattainment areas must employ, at a minimum, Reasonably Available Control Technology (RACT) for the nonattainment pollutants. To be approved, the state bubble rules (OAR 340-20-320) must require that the baseline emissions for bubbling in nonattainment areas be equivalent to RACT on a plant-wide basis.
3. New and modified major stationary sources may construct only if they either employ Best Available Control Technology (BACT) or meet the Lowest Achievable Emission Rate (LAER) whichever is applicable. However, sources may avoid these requirements by accepting voluntary permit limitations on their hours of operation or production rates or both provided that they will be required to retrofit BACT or LAER should they ever desire to rein the original limitations on hours of operation or production rates. The DEQ definition of "major modification" in OAR 340-20-225(14) requires such retrofit control. However, the DEQ has in OAR 340-20-250(3) inappropriately exempted these sources from BACT. The language in 340-20-250(3) must be changed so that it does not exempt from BACT requirements those sources which are proposing increases in hours of operation or production rates above levels which were used to avoid BACT requirements in the first place.

367

ENCLOSURE 2

Certain aspects of the DEQ program appear to be approvable. However, because the approaches differ substantially from the CAA and EPA programs, the equivalency of the DEQ program must be demonstrated or if so desired, the regulations could be revised.

1. The DEQ has chosen to adopt a substantially different approach to "baseline date," "baseline area" and "baseline concentration" for the PSD program. While EPA is amenable to different, but equivalent, approaches it is not clear that certain of the CAA requirements are adequately covered by the DEQ program. Specifically:

a. The CAA defines baseline area as each area designated as attainment or unclassifiable under Section 107(d)(1)(D) and (E) and baseline date as the time of the first PSD application after August 7, 1977. The DEQ defines the "baseline area" as the entire state and the "baseline date" as January 1, 1978. Having a fixed date for the entire state rather than a different date for different areas can result in different effects on available growth increments. Whereas area and minor source growth after January 1, 1978 will consume increment under the DEQ program, it would be considered part of the baseline until a permit application is received under the CAA program. Conversely, any improvements in air quality after January 1, 1978 will make more growth increment available under the DEQ program while such improvements would lower the baseline under the EPA program. The DEQ must show that their program is equivalent or more stringent on an overall state basis.

b. The CAA in Section 169(4) and EPA regulations in 40 CFR 51.24(b)(13) provide specific provisions for major stationary sources and major modifications which commenced construction before and after January 6, 1975, respectively. The allowable emissions from sources constructed before January 6, 1975 are to be included in the baseline if they were not in operation as of the baseline date. The actual emissions of sources constructed after January 6, 1975 are to be counted against the available increment. It appears that in CAR 340-20-225(2)(a) the DEQ may be inappropriately including in the baseline concentration, actual emissions from major sources or modifications which commenced construction after January 6, 1975 and which were in operation by January 1, 1978. Also, in 340-20-225(2)(b), the time period for "actual emission increases" is not specified: does it refer to only the units for which construction commenced before January 6, 1975 or all future units added to the

437

plant? Does it refer to the actual emissions as of initial start-up or does it include future increases in hours of operation or production rates? The DEQ must show that their regulation adequately covers such sources and modifications with respect to their impact on baseline concentrations and available increments.

2. EPA regulations in 40 CFR 51.18(j)(1)(vii) and 51.24(b)(3) define the term "net emissions increase," including how such netting is done and what emission decreases and increases are to be considered. The DEQ definition of "major modification" (OAR 340-20-225(14)) includes the same concept but does not include any specific provisions regarding the baseline for determining credit for emission decreases. The DEQ must show that procedures similar to those in OAR 340-20-255 "Baseline for Determining Credit for Offsets" and 340-20-260(4) will be used in evaluating "net significant emission rate increases" for major modifications.
3. EPA has defined a "major stationary source" as all pollutant emitting activities which belong to the same "Major Group" (i.e. same two-digit SIC code), are located on one or more contiguous properties, and are under the control of the same person. The DEQ has chosen not to include the SIC "Major Group" limitation. The effect of this is to include more emission points within the source, thereby possibly subjecting more new and modified sources to review. By providing a broader base for offsets, it may also exempt some modifications from review which would have been covered by EPA regulations. The DEQ must show that their overall program will be equivalent or more stringent with regard to the existing and potential source configurations in Oregon.
4. EPA regulations in 40 CFR 51.24(f)(4)(iii) and Appendix S, Section IV.B, provide certain exemptions for portable facilities which are major stationary sources subject to PSD and attainment area permit requirements. The exemptions in OAR 340-20-260(2) for the DEQ new source review regulations are broader than allowed by EPA requirements. The DEQ must show that the remaining new source review requirements, combined with applicable requirements of their Air Contaminant Discharge Permit Rules, are equivalent to EPA's requirements.
5. EPA regulations in 40 CFR 51.18(j)(1)(vii)(f) and 51.24(b)(3)(vii) allow a reasonable shutdown period, not to exceed 180 days, when both an original unit and replacement unit can operate simultaneously. The DEQ rule in OAR 340-20-260(4) provides no time limit on the shutdown period. The DEQ must show that their restriction on no net emissions increase during the shutdown period is equivalent or more stringent than the EPA requirement.

590

ENCLOSURE 3

The following additional comments and suggestions are provided for your information and consideration.

1. The definitions of "significant emission rate" (OAR 340-20-225(22)) and "significant air quality impact" (OAR 340-20-225(23)) should indicate that the regulated pollutant is ozone but that "volatile organic compound" emissions are used as a measurement of significance.
 2. The public participation requirements (OAR 340-20-230(2)(b)(B)) should be revised to indicate that the information will be available in the region where the source would be constructed or at least at the nearest DEQ office.
 3. The first paragraph of the PSD program (OAR 340-20-245) should be expanded to better clarify pollutant applicability. For example, PSD applies to a major stationary source or major modification for each pollutant emitted in significant amounts for which the area is designated attainment or unclassifiable. Also, it is not clear whether both PSD and Part D permit requirements apply for the nonattainment pollutant in a nonattainment area if the source is subject to PSD for another pollutant.
 4. The provision which allows the DEQ to accept less than one year of pre-application ambient monitoring (OAR 340-20-245(5)(a)) should be revised to specify that it shall be for no less than four (4) months.
 5. The provisions for sources impacting Class I areas (OAR 340-20-245(7)) should be revised to indicate that the DEQ will forward to EPA a copy of the permit application and subsequent notice of each action taken with regard to such application.
 6. The provision allowing precursor offsets (340-20-260(3)) should be expanded and clarified as to which pollutants are covered and what will be required for the technical demonstration of net air quality benefit in the area impacted by the proposed new source or modification.
 7. The DEQ has two different definitions of the term "source": in OAR 340-20-225(24) for the purposes of the New Source Review Regulation and in Table A, OAR 340-20-155 for the purposes of the Air Contaminant Discharge Permit (ACDP) program. It is not clear which definition of the term source is to be used in the Plant Site Emission Limit (PSEL) Rules. It appears that the DEQ intends to use the broader definition in OAR 340-20-225(24), even though the PSEL is incorporated into the ACDP.
 8. All banked emission credits must be treated as though they are still being emitted when conducting the air quality reviews for
- 152

new or modified sources. The DEQ regulations should include such a provision.

9. The banking rule requires that sources notify the DEQ when emission reduction credits are transferred but does not require prior DEQ approval of each transfer (OAR 340-20-265(10)). The regulation should be clarified to indicate that the use of emission reduction credits involving netting, bubbles or offset will require specific DEQ approval.
10. The banking rule does not include any discussion with regard to the use of banked emission reduction credits. It should be clear that transactions for bubbles or offsets will be evaluated in terms of their ambient impact, not just on a ton-for-ton basis. In effect, an emission reduction credit is not only a quantity of tons, but includes the ambient impact characteristics of those emissions as well.
11. The DEQ should keep a formal registry of banking transactions. EPA feels that this is the only way to keep a good handle on the use of banked credits as well as providing information to sources in search of offsets.
12. The Oregon ambient air quality standard for lead (OAR 340-31-055) is not as stringent as the NAAQS and should be revised.
13. The "Restrictions on Area Classification" (OAR 340-31-120(3)(a)) are not consistent with the CAA with regard to Class I or II designation of certain federal lands. All national monuments, primitive areas, preserves, recreational areas, wild and scenic rivers, wildlife refuges and lakeshores or seashores which exceed 10,000 acres in size may only be redesignated Class I or II regardless of whether they were created before or after August 7, 1977. Although EPA can approve the DEQ provision at this time since we are unaware of any areas which could be adversely affected, the provision should be revised before it would inappropriately allow Class III designation for lands which the CAA restricts to Class I or II.
14. The Air Contaminant Discharge Permit Rules (OAR 340-20-140 to 165) do not include any criteria which must be met to receive a permit (e.g. compliance with applicable emission limitations, not cause or contribute to NAAQS violations, etc.) nor does it include any administrative procedures for issuing permits. The DEQ should submit the "daily adopted procedures" referenced in OAR 340-20-170 for inclusion in the SIP.
15. EPA has not yet promulgated regulations to implement Section 123 of the CAA. As such, the terms "good engineering practice stack height" and "dispersion technique" have not been defined for the purposes of SIP requirements. EPA, therefore, will not be acting (neither approval or disapproval) on the DEQ's definitions of those terms in OAR 340-20-225.

OREGON STEEL MILLS

June 5, 1981

STATEMENT BEFORE THE ENVIRONMENTAL QUALITY COMMISSION BY THOMAS C. McCUE
OF OREGON STEEL MILLS, PORTLAND, OREGON.

The proposed plant site emission limit and new source review rules now under consideration for adoption by the Commission require comment by industry.

Oregon industry has long held the "good neighbor" attitude toward air pollution and has made continual efforts to improve air quality in the community. The Portland Aerosol Characterization Study (PACS) of 1979 has clearly supported this position by identifying the industrial point source contribution to total suspended particulates (TSP) as only 2.9% ⁽¹⁾ in the Portland-Vancouver Air Quality Maintenance Area (AQMA). The major emission sources were identified as population related or area sources. The greatest of these is road dust at 47% of the locally generated TSP and vegetative burning such as residential wood burning at 20-40% of the TSP.

Oregon Steel Mills has invested over \$10.1 Million in pollution control equipment at the Rivergate facility which amounts to nearly \$11,000 per employee or 13% of the total capital investment. In 1980 alone we spent \$330,000 for air pollution control equipment improvements and \$1.1 Million for operation and maintenance of pollution control equipment. Oregon industry has made large investments in process emission controls. According to Oregon's

State Implementation Plan (SIP)⁽²⁾ "...Analysis of additional industrial process emission control strategies indicate that all major sources were controlled to the RACT (reasonably available control technology) level. All additional reasonable controls on industry in combination would only reduce daily concentrations by $1 \mu\text{g}/\text{m}^3$ at the maximum impact site at a cost of \$2.6 Million per year".

Industry has suffered the increases in operational costs from raw material increases, to utility rate hikes, yet we have still reduced emissions into the airshed. We have carried the burden of cleaning up the air, and at only 2.9% of the TSP there is little else we can contribute without closing our doors. If industry is to survive in the '80's, we must remain competitive against foreign imports by reinvesting capital into new technologies and processes. We cannot remain competitive when Oregon chooses to ignore their own findings in PACS and control programs in the SIP.

The Oregon SIP proposes that ".....Programs to control particulate concentrations focus largely on area sources not because those sources will be easy to control, but rather because those sources are primarily responsible for the exceedances of standards in the Portland Metropolitan Area for many area sources, control technology has been neither well-defined or verified".⁽²⁾

Projections for the 1977-1987 period indicate increases in tons particulate per year of 11,169 for road dust and residential space heating from wood.

Projections for the industrial point source contribution for 1977-1987 amount fo a 964 tons reduction based on control equipment already installed during the 1977-1979 period.⁽³⁾

Clearly, the efforts of the regulatory agencies should be directed toward population related area sources if any improvement in air quality is to be achieved in the next decade. Yet, currently proposed plant site emission limit rules and new source review rules restrict industry's ability to survive. First, the establishment of an absolute ceiling on plant site emissions based on actual emissions during an arbitrarily chosen base year does not reflect actual design capacity or market fluctuations. Any industry must have the ability to respond to changes in market conditions both for its own survival and for economic stability of the local community. Therefore, we at Oregon Steel Mills recommend plant site limits based on actual design capacity of the facility.

Secondly, the emission reduction credit banking rules proposed in the New Source Review Regulations are overly restrictive by disallowing shutdowns and curtailments to be banked, discounting banked emissions and placing time limits on the banking period. The DEQ suggests that elimination of discounting provisions would establish unlimited airshed "rights" to industry, yet industry has clearly restricted emission limits in existing air contaminate discharge permits.

The DEQ maintains banked emissions from source shutdown or curtailment would allow ".....valuable banking credit to the owner without any investment in equipment to control emissions....". Yet we at Oregon Steel Mills have invested over \$10.1 Million willingly and have controlled emissions to the best practical level and more in an effort to be a "good neighbor" to the community.

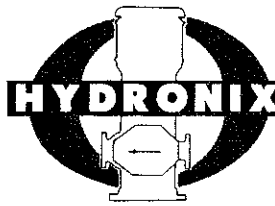
We, at Oregon Steel Mills, recommend allowing emissions from shutdowns and curtailments to be banked without time limits. At only 2.9% of the total suspended particulate locally generated by industry in the Portland-Vancouver AQMA, industry is not the major emission source popularly thought.

If the proposed regulations are approved as written, the regulated community of industry will be forced to finance its own emission reduction as well as population related area sources. How much longer can industry support the clean-up of an airshed which is largely unregulated and still stay solvent. Even the simplest cost/benefit analysis of these regulations would conclude that the cost to industry will be very high and the benefits are almost non-existent.

- (1) Portland Aerosol Characterization Study (PACS). April 23, 1979
by John A. Cooper and John G. Watson for Portland Air Quality
Maintenance Area Advisory Committee and Oregon Department of
Environmental Quality.

- (2) 4.1.0.2 Portland-Vancouver Air Quality Maintenance Area (Oregon
Portion) State Implementation Plan for Total Suspended Particulates.

- (3) 4.1.2.1 Oregon SIP Table 4.1.1-2.



HYDRONIX Inc.

2425 S.E. OCHOCO STREET

• PORTLAND, OREGON 97222

• 503-659-6230

August 28, 1981

- OREGON ENVIRONMENTAL QUALITY COMMISSION
Box 1760
522 Southwest 5th Avenue
Portland, Oregon 97207

SUBJECT: AGENDA ITEM U, E.Q.C. MEETING, 8-28-81

Regarding the proposed adoption of temporary Rule Amending Rules for on-site sewage disposal, OAR #340-73-055, I must agree that if the State Fire Marshal and the State Electrical Department classify Effluent Systems as Class I Division I atmosphere, changes to the existing rules are necessary.

My main concern is, will "The baby be thrown out with the bathwater?" or will proven standards, which have been successful in the past and understood by the field people, be totally sacrificed.

I will address the proposed amendments to OAR #340-73-055 as they appear in attachment C.

It appears that many of the present standards would restrict the use of a well pump as an effluent pump and the changes which would allow for their addition, in turn, removes some of the standards of quality built into the rules.

- 1 - (Old A) This Paragraph totally stricken, removes any control over the quality of motor supplied. I suggest it be rewritten to meet present needs not deleted.

(New A, Old B) O K

(New B, Old C) O K

(New C, Old D & E) New C adds the use of a screen to allow for the use of a well pump; old "D" and "E" are deleted as the well pump cannot pass a 3/4" sphere and does not need the '6" restriction as the motor is below the pump.

I feel that, rather than strike the old "D" and "E", state that when using a well pump which cannot meet the sphere requirements, a screen, as described, is required.

(New D, Old F) The deletion of Mercury Float Switches for reasons unknown to me and leaving the rules open to anyone's interpretation, could be disastrous, to say the least., i.e. A Purex bottle with a rope and pulley connected to a light switch, could qualify.

AGENDA ITEM U

Pg. 2

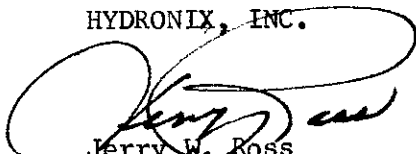
(New E, Old G) O K, except for better definition of switching mechanism.

(New F, Old H) O K, but should state that all controllers should be U. L. Labelled, in addition, for the owner's protection.

Thank you for this opportunity to express my opinions.

Yours truly,

HYDRONIX, INC.



Jerry W. Ross
Operations Manager

JWR/jt



NORTHWEST PULP & PAPER

August 25, 1981

Mary V. Bishop
01520 S. W. Mary Failing Drive
Portland, OR 97219

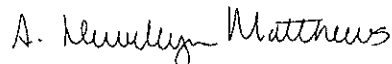
Dear Commissioner Bishop:

Enclosed is a copy of a letter to Chairman Richards pertaining to several aspects of the proposed PSEL rule which are scheduled for additional consideration at the August 28th EQC meeting.

The members of NWPPA have been very concerned about the proposed PSEL rule because of its potential impact on existing productive capacity of Oregon mills; burdensomeness of the review which could be required to accommodate temporary changes (hours of operation, production and fuel switching); and the impact on the cogeneration potential. The new proposed policy statement is helpful; however specific additional protection should be provided. For this reason I would like to call your attention particularly to the recommendation highlighted on page 2 of the attached letter.

Throughout the process of developing this regulation, the members of NWPPA have remained concerned that the statements of intent made in the meetings be reflected in the actual language of the regulation. For this reason, your consideration of the proposed addition is appreciated.

Sincerely,



A. Llewellyn Matthews
Executive Director

ALM:jc
Enclosure



NORTHWEST PULP & PAPER

August 25, 1981

Mr. Joe Richards, Chairman
Environmental Quality Commission
P. O. Box 10747
Eugene, OR 97401

RE: PSEL - Remaining unaddressed items

Dear Chairman Richards:

At the July 17, 1981 EQC meeting the proposed Plant Site Emission Limit and the New Source Review Rules were considered and it was decided that a number of unaddressed items and the application of tax credits to the offset and banking provisions would be discussed further at the August 28, 1981 EQC meeting. Also you indicated that you would be willing to entertain additional factual information on some items raised at the last meeting. The following comments pertain to these categories of remaining issues.

I. POLICY STATEMENT - NEED FOR ADDITIONAL PROVISIONS REGARDING EXPENDIENCY OF REVIEW

The latest draft of the proposed Plant Site Emission Limit Rules contains the draft preamble proposed by Mr. Tom Donaca. This will do much to alleviate concerns that the proposed rules will affect existing industrial capacity.

However, the effect of the proposed rules is partly a function of intent (as now expressed in the new policy statement) and timing of regulatory reviews and actions pursuant to the proposed rule. The latter can affect production capacity as surely as the former. The need to address timing in the proposed PSEL rule can be demonstrated in the following two examples:

A. Timing Problems Associated with Temporary Changes in Operations

The proposed rules provide for temporary increases in the PSEL for "voluntary rule switching or other cost or energy saving proposals" (340-20-320). This would presumably accommodate changes in hours of operations, or production levels as well as fuel switching.

Changes of this type may be short-term, yet the proposed PSEL rule would seem to require a full PSD type of review in order to effect a change in the "baseline emission rate". A PSD review is a complex, costly and time consuming type of review (often requiring one year of monitoring data). Under the federal regulations, this type of review is only required for relatively permanent major modifications. (The EPA definition of "Major Modification" specifically excludes changes in hours of production, the production rate, or fuel switching). Under a strict interpretation of the proposed PSEL rule, the time required for review could exceed the time for which a relatively temporary change would be in effect.

B. Cogeneration

Many industrial boilers were installed with excess boiler capacity for future expansion or now have excess capacity as a result of energy conservation and efficiency improvement measures. Electrical turbine generators can be added to these boilers to cogenerate power for the plant or for sale to the grid. The new rule could require such projects to undergo review similar to the procedures required for new major sources. Such reviews, which could require one year of ambient monitoring, will cause delays which could discourage cogeneration projects. Also, existing cogeneration facilities, the operation of which fluctuates with electrical demand, would be subject to a review which could result in limits on the annual power generation.

The DEQ staff has indicated that it will act as expeditiously as possible to review and grant revised PSEL for the situations described above pursuant to the provisions for "temporary PDS increment allocation". While this verbal statement of intent is reassuring, it is not reflected in the actual language of the regulation.

This statement of intent could be incorporated into the proposed PSEL rules by adding the following statement to 340-20-320:

SUGGESTED ADDITION (following "d.")

"When such demonstration is being made for changes to the PSEL, it shall be presumed that ambient air quality monitoring shall not be required of the applicant for changes in hours of operation, changes in production levels, voluntary fuel switching or for cogeneration projects unless extraordinary circumstances exist."

P. 9

Land
in a permit
DEQ

II. NO OTHER STATE HAS SEEN THE NEED FOR A PSEL RULE; COMPARISON TO WASHINGTON STATE PROPOSED REGS

It has been recognized that the PSEL rule is not a Federal requirement or even a recommendation. Further, it should be noted that no other state has developed a PSEL rule of this type. (NWPPA survey in late 1980 with update in June, 1981).

Generally, other states set limits in operating permits or air discharge permits which are tied to maximum rated capacity. Baseline emissions for the purpose of the administration of Emission Offset, Banking and Bubble Programs are established as a result of individual negotiations between the source and the regulatory agency.

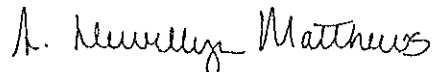
In the July 17th EQC meeting, the DEQ indicated that Washington State is contemplating a regulation similar to Oregon's proposed PSEL. However, the proposed Washington regulation is not in fact analogous. The proposed Washington regulation would require operating permits based on "maximum rated capacity," or if applicable, source specific standards in 40 CFR 60 and 61. A baseline emission rate based on past "actual emissions" is only established for the purpose of administering emission offset, banking and bubble programs. Thus, the Washington approach would avoid the "paper emissions" problem cited by the EQC in the administration of these innovative programs.

III. ISSUE #3 - CONTROL STRATEGY BASELINE FOR PLANT SITE EMISSION LIMITS

The DEQ narrative indicates that "control strategy regulations developed for the non-attainment areas may be used as the baseline for establishing the Plant Site Emission Limit." A control strategy is analogous to source specific mass emission limits. We hope that the decision in this case indicates a willingness to utilize control strategies and/or source specific mass emission limits in developing PSEL in similar cases in the future. This result would be consistent with the new policy statements (340-20-300).

Thank you for the additional opportunity to make these comments.

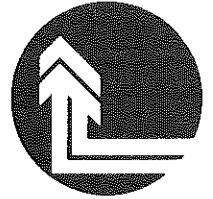
Sincerely,



A. Llewellyn Matthews
Executive Director

ALM:jc

cc: Wallace B. Brill
Ronald M. Somers
Fred J. Burgess
Mary V. Bishop



BOARD OF COMMISSIONERS

Vance Freeman
Scott Lieuallen
Gerald Rust, Jr.
Otto t'Hoof
Harold Rutherford

August 24, 1981

Mr. William Young, Director
Department of Environmental Quality
522 S.W. 5th
Portland, OR 97204

RE: River Road/Santa Clara
Sewerage Planning

Dear Bill,

This letter is to confirm our conversation with Mr. Bordon at a meeting conducted August 21, 1981. Mr. Bordon discussed the EQC staff report and recommendation for the Friday, August 29, 1981 EQC meeting.

While I cannot support elements of the report I do feel that postponement of the EQC public hearing from January, 1982, as currently required, to May, 1982 as proposed is most appropriate.

A number of issues related to incorporation and metro plan compliance which affect the area are still pending resolution. We will continue to extend every effort to meet the needs of Lane County citizens in attempting to resolve this complex problem.

Sincerely,

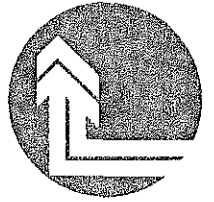


HAROLD H. RUTHERFORD, CHAIRMAN
LANE COUNTY BOARD OF COMMISSIONERS

HHR/jbw

Item T (written testimony)

lane county



August 19, 1981

John Borden
DEQ
1095 25th Street
Walker Plaza
Salem, OR 97310

RE: EQC Agenda Item on RR/SC Agreement

I have reviewed your draft on same. My review indicates the item is well written and accurately informs your Commission of the current events and relevant issues. Further, it appears the "Director's Recommendations" if accepted by the EQC as proposed should be acceptable to the Lane County Board of Commissioners with the one revision we discussed yesterday. Specifically, recommendation 1a requires adoption of the sewerage plan by the date of the LCDC Metro Area Compliance Order or March 26, 1982. Since we have not adopted a work plan for completion of the LCDC Order, we cannot in good faith commit to the March 26th date. I recognize how you determined that date, i.e. over 150 days beyond the issuance of the LCDC Order. However, practically speaking, the LCDC Order requirements will take longer than 150 days to complete. This means the three Metro jurisdictions will seek continuance of the LCDC Order at the appropriate time. With regards to the EQC responsibility to protect the ground water in the RR/SC area I see no "real" gains by including the March 26th date in their conditions.

Again speaking on a practical level, there will be a logical sequence and timing of the political and technical decisions needed to resolve all the issues raised in the Metro Plan review. Thus, to impose the March 26th completion date presents the County with an unknown. This is not to say a March 26th date would or could not be accomplished. It is simply we cannot commit to that date prior to the EQC August meeting.

I suggest the following three alternatives for resolution:

- 1) Revise recommendation 1a to require adoption of the sewerage plan no later than the LCDC Order or any extension of the Order granted by LCDC. Clearly, the EQC and DEQ will have an opportunity to comment on impacts of any such extension since consideration of any extension will be at public hearings.

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John Borden
Page 2
August 19, 1981

- 2) Delay EQC consideration of this matter until October, by which time the Metro work plan for completing the LCDC Order will be known.
- 3) Leave recommendation 1a as proposed in the draft and seek revision, if needed, at the proposed May, 1982 EQC public hearing and progress report on this matter.

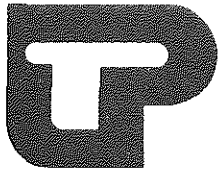
My support for the alternatives above are in the order presented. I will not be available to attend the EQC meeting or your proposed visit with individual Board members to review this matter, however, I have discussed this matter with Roy Burns and he will represent me at those meetings.

Sincerely,



Richard Owings
Director

dkb
cc: Commissioner Rutherford
Commissioner Lieuallen
George Morgan
Roy Burns



TIMBER PRODUCTS CO.

Executive Office

POST OFFICE BOX 269
SPRINGFIELD, OREGON 97477
PHONE 503/747-3321

EQC
Young
Grimes
Downs

August 24, 1981

Oregon Environmental Quality Commission
Department of Environmental Quality
522 S. W. Fifth Ave.
P. O. Box 1760
Portland, Oregon 97407

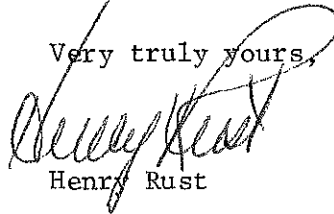
Attn: Joe Richards-Chairman

Dear Sir:

I request that item "M" on the agenda for the August 28 commission meeting be moved up to assure consideration in the morning session. An early hearing will assure that representatives of Timber Products Co. can meet early afternoon travel commitments.

Thank you for your consideration in this matter.

Very truly yours,



Henry Rust

HR/bw

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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OFFICE OF THE DIRECTOR

OREGON WHEAT

503/276-7330

OREGON WHEAT GROWERS LEAGUE • 305 S.W. 10TH • P.O. BOX 400 • PENDLETON, OREGON 97801

EQC
Young
Weatherbee
Downs
Underwood

August 24, 1981

MEMORANDUM

TO: Environmental Quality Commission

Subject: Exemption of
Agricultural Open Burning
in Eastern Oregon

Please forgive the form letter to contact you, but accept it as an efficient method of giving our thoughts to all of the members of the Commission.

We have received the announcement of the Department of Environmental Quality (DEQ) August 28 meeting and the proposed exemption of open burning in Eastern Oregon.

You may be aware that the OWGL opposed the regulation of agricultural burning in Eastern Oregon at various hearings conducted during March. We are still opposed to this action and are pleased that your proposed regulation will exempt this area.

We have reviewed the proposed regulation and support this proposed action.

If you have any questions, please let us know.

Sincerely,

OREGON WHEAT GROWERS LEAGUE



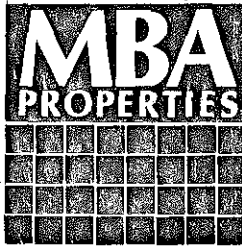
Stan Timmermann, President

ST:ip
cc: William H Young
Oregon area legislators
OWGL officers

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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AUG 27 1981

OFFICE OF THE DIRECTOR

EQC
Young
Weatherbee



MBA Properties, Brackman-Fullerton, Inc., Realtors
9454 Southwest Allen Blvd., • Beaverton, Oregon 97005 • 245-6693

August 26, 1981

Governor Vic Atiyeh
State Capitol Bldg.
Salem, Oregon 97310

Dear Governor Atiyeh:

On Sunday evening, August 23, 1981, the Portland metropolitan area was inundated with smoke from field burning in the Willamette Valley. This condition existed for about six hours and created an intolerable air quality condition. I found my eyes and throat burning. It is absolutely ridiculous that a million people in our metropolitan area would have to put up with this kind of air pollution. I urge you to put a stop on field burning. We can no longer afford to put this kind of smoke into our air shed.

Sincerely,

Neal Hribar
Sales Associate

NH/jb

cc: Mayor Frank Ivancie
Environmental Quality Commission ✓

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

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OFFICE OF THE DIRECTOR



METROPOLITAN SERVICE DISTRICT
527 S.W. HALL ST., PORTLAND, OR . 97201, 503/221-1646

EQC
Young
B.J. Smith
Jones
Underwood

Rick Gustafson
EXECUTIVE OFFICER

Metro Council

Jack Deines
PRESIDING OFFICER
DISTRICT 5

Betty Schedeen
DEPUTY PRESIDING
OFFICER
DISTRICT 7

Bob Ofeson
DISTRICT 1

Charlie Williamson
DISTRICT 2

Craig Berkman
DISTRICT 3

Corky Kirkpatrick
DISTRICT 4

Jane Rhodes
DISTRICT 6

Ernie Bonner
DISTRICT 8

Cindy Banzer
DISTRICT 9

Bruce Ellinger
DISTRICT 10

Marge Kafoury
DISTRICT 11

Mike Burton
DISTRICT 12

August 21, 1981

Mr. Joe B. Richards, Chairman
Environmental Quality Commission
P.O. Box 1760
Portland OR 97207

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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AUG 27 1981

OFFICE OF THE DIRECTOR

Dear Joe:

Re: Construction Grants Priority List for FY 82.

The task of maintaining the State's Sewerage Works Construction Grant Program, given the uncertainties of funding and the efforts to reform the program at the federal level, is extremely difficult. The Department of Environmental Quality staff should be commended for their efforts to keep the program operational, so in the event of renewed funding, monies can be transferred to local projects as quickly as possible.

Two alternatives have been proposed: 1) based on the criteria adopted by Environmental Quality Commission (EQC) on September 19, 1980, including revised policies on transitioning and segmentation; 2) based on the September 19, 1980, criteria but with modification to the transition policy.

The September 19, 1980, criteria were based on the best knowledge and assumptions concerning continuing "201" funds available at that time. They were the topic of several public hearings and received considerable testimony, pro and con, prior to adoption by the EQC. Unfortunately, these assumptions appear to be incorrect. The second alternative is an attempt to modify the criteria based on new assumptions.

Both alternatives proposed are an attempt to second guess the federal reform legislation currently proposed and both

Mr. Joe B. Richards
August 21, 1981
Page Two


may prove wrong. As a third alternative, I would like to offer the following recommendations developed by Metro's Water Resource Policy Alternatives Committee:

1. Postpone action on Alternatives 1 and 2.
2. Extend the current (FY 81) priority list and criteria until federal reform legislation has been adopted and future funding levels established.
3. Develop new criteria and list as appropriate based on the revised legislation and funding appropriations and hold new public hearings at that time.

In any event, new hearings should be held concerning any revisions to the priority list which may result from legislation or program funding changes.

Thank you for your consideration of these recommendations. We welcome your questions or comments.

Sincerely,



Rick Gustafson
Executive Officer

RG:JL:srb
3986B:D3

cc: Bill Young, DEQ

My Young
FEQC
Weathersbee 6937 SW 31 Ave.
Portland, Or. 97219
Aug. 23, 1981

Dept. of Environmental Quality
522 S.W. 5th Ave.
Portland, Ore - 97207

Dear Janet Gillaspie,

Thank you for the mailing of
Aug. 19 regarding your Aug. 28th
meeting. I will be unable to
attend but would like to reiterate
my support for continued back
yard burning on a daily
approved basis.

I also believe a yearly
program - on a daily basis -
would eliminate the volume
that is burned at the
beginning of the spring and
fall seasons -

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

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AUG 25 1981

OFFICE OF THE DIRECTOR

Sincerely,

Barbara Krieg
(Mrs. Ann E.)



CITY OF
**COTTAGE
GROVE**

400 E. Main Street, Cottage Grove, Oregon 97424

*EQC
Young
Weathersbee*

August 17, 1981

OFFICE OF THE MAYOR

Mr. Joe Richards
Chairman, E.Q.C.
P. O. Box 1760
Portland, Oregon 97207

Dear Mr. Chairman,

I ask your permission to speak to the Staff recommendation for back yard burning regulations at your meeting Friday, August 21. Although I am Vice Chairman of the Lane Regional Air Pollution Authority I am authorized to speak only as Mayor of the City of Cottage Grove and for the Lane County Fire Defense Board.

I will trust your judgement as to the appropriateness of this request.

Sincerely,

William Whiteman
Mayor

WW:bm

P. S. Although requested some time ago, I have not yet received a copy of the Staff report or recommendations to the board.

Finally received it today 9/19/81

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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AUG 21 1981

OFFICE OF THE DIRECTOR

EQC
B.J. Smith
Young



METROPOLITAN SERVICE DISTRICT
527 S.W. HALL ST., PORTLAND, OR. 97201, 503/221-1646

Rick Gustafson
EXECUTIVE OFFICER

Metro Council

Jack Deines
PRESIDING OFFICER
DISTRICT 5

Betty Schedeen
DEPUTY PRESIDING
OFFICER
DISTRICT 7

Bob Oleson
DISTRICT 1

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DISTRICT 3

Corky Kirkpatrick
DISTRICT 4

Jane Rhodes
DISTRICT 6

Ernie Bonner
DISTRICT 8

Cindy Banzer
DISTRICT 9

Bruce Etlinger
DISTRICT 10

Marge Kafoury
DISTRICT 11

Mike Burton
DISTRICT 12

August 21, 1981

Mr. Joe B. Richards, Chairman
Environmental Quality Commission
P.O. Box 1760
Portland OR 97207

Dear Joe:

Re: Construction Grants Priority List for FY 82.

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Both alternatives proposed are an attempt to second guess the federal reform legislation currently proposed and both

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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Mr. Joe B. Richards
August 21, 1981
Page Two

may prove wrong. As a third alternative, I would like to offer the following recommendations developed by Metro's Water Resource Policy Alternatives Committee:

1. Postpone action on Alternatives 1 and 2.
2. Extend the current (FY 81) priority list and criteria until federal reform legislation has been adopted and future funding levels established.
3. Develop new criteria and list as appropriate based on the revised legislation and funding appropriations and hold new public hearings at that time.

In any event, new hearings should be held concerning any revisions to the priority list which may result from legislation or program funding changes.

Thank you for your consideration of these recommendations. We welcome your questions or comments.

Sincerely,



Rick Gustafson
Executive Officer

RG:JL:srb
3986B:D3

cc: Bill Young, DEQ



*why Young
EQCC
Downs
Weatherbee*

DEPARTMENT OF JUSTICE

PORTLAND DIVISION
500 Pacific Building
520 S.W. Yamhill
Portland, Oregon 97204
Telephone: (503) 229-5725

August 25, 1981

Mr. William H. Young, Director
Department of Environmental Quality
522 S.W. Fifth Avenue
Portland, Oregon 97204

Re: Proposed PSEL, NSR Rules--Tax Credits

Dear Bill:

You have requested that I write you more fully of my concern, which we have briefly discussed, regarding rule making by the Commission to limit or revoke tax credits for pollution control equipment in those instances where the resultant emission reductions are sold or traded by the recipients of the tax credits.

My question relates to the sufficiency of the statutory authority of the Commission to limit or revoke such tax credits in the absence of express authorization to do so in the tax credit or pollution control statutes. There is presently no such express statutory authorization.

ORS 468.185(1) provides a procedure for the Commission to revoke a tax credit certification if, after a contested case opportunity for the tax credit applicant, it makes a finding that:

"(a) The certification was obtained by fraud or misrepresentation; or

"(b) The holder of the certificate has failed substantially to operate the facility for the purpose of, and to the extent necessary for, preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes, or used oil as specified in such certificate."

ORS 307.405(4), 316.097(10) and 317.072(10)--relating to the use of a tax credit for real property tax, personal income tax or corporation excise tax benefits, respectively--each includes the following identical provision:

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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OFFICE OF THE DIRECTOR

Mr. William H. Young
August 25, 1981
Page No. 2

"Upon any sale, exchange, or other disposition of facility, notice thereof shall be given to the Environmental Quality Commission who shall revoke the certification covering such facility as of the date of such disposition."

Other than the foregoing, I find no statutory provisions expressly authorizing the Commission to limit or revoke a previously issued tax credit certification.

It has been suggested that there might be implied statutory authority for the Commission to adopt a rule precluding the issuance of a tax credit certificate, or the limitation or revocation of such a certification, on account of emission reductions that are sold or traded. The statutory basis for that suggestion is ORS 468.170(4), which provides that a tax credit may only be certified by the Commission if the "facility is necessary to satisfy the intents and purposes of" the pollution control statutes and rules thereunder. Thus, it is opined, that a Commission rule limiting tax credit certification for emission reductions sold or traded could lawfully preclude the full, or any, tax credit certification.

I am concerned that a court would find that the Commission was not acting within the policy or intent of the tax credit legislation, but was itself by rule attempting to adopt independently a new policy limiting the application of the tax credit statutes beyond the contemplation of the tax credit legislation. Further, I am concerned that the court might apply the rule of statutory construction that, where a general and particular provision are inconsistent, the latter prevails over the former; that is, a specific intent controls over a general one that is inconsistent with it. Here the general statute referred to is ORS 468.170(4) and the specific statutes are ORS 468.185(1), 307.405(4), 316.097(10) and 317.072(10). Further, the court might apply another rule of statutory construction that the more specific statutes provide the exclusive means of limiting or revoking tax credit certificates. Lafferty v. Newbry, 200 Or 685, 268 P2d 589 (1954). This is a rule that the expression of one thing implies exclusion of other things. Thus, the court might rule that the specific provisions of the tax credit statutes as to the revocation of such certificates would be governing because the statute meant to exclude any

Mr. William H. Young
August 25, 1981
Page No. 3

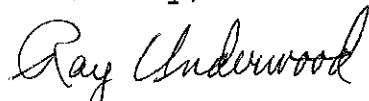
other means of limiting or revoking issued tax credit certificates. In view of these legal questions, if the Commission wishes nevertheless to adopt such a rule, I suggest that:

(1) A formal attorney general's opinion first be sought as to the Commission's statutory authority to adopt such a rule; and

(2) If that opinion states that there is such authority, the Commission consider the adoption of such a rule separate and apart from the current rulemaking now in progress regarding plant site emission limits and new source review requirements.

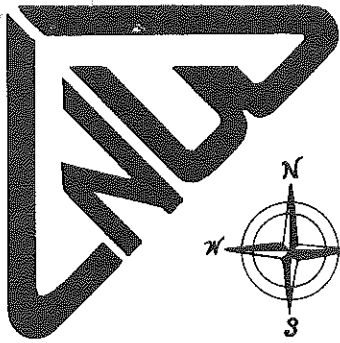
Please let me know if I can be of further assistance in this matter.

Sincerely,



Raymond P. Underwood
Chief Counsel

bc



CONSULTANTS NORTHWEST, INC.

907 W. Highland Avenue

P.O. Box 759, Redmond, OR 97756

tele: (503) 548-6136

August 11, 1981

81-00.0

Environmental Quality Commission
Box 1760
Portland, OR 97207

Subject: Agenda Item No. E (1) & E (2)
July 17, 1981, EQC Meeting

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

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AUG 12 1981

Gentlemen:

OFFICE OF THE DIRECTOR

The following written comments are being submitted for your consideration at the 8 September 1981 public hearing as per the Department's recent notice.

Agenda Item No. E. (1)

In the immortal words of one of this country's great leaders, the proposed modification of the September 19, 1980 Rules, "SUCKS." We strenuously object to modification of this rule in favor of the City of Bend, City of Portland and MWMC projects. Except for some token consideration for the remainder of the State, grant funds for other than these three areas would be non-existent for 5 to 6 years (depending on cost overruns on these projects). In fact, if one were to delete the (81) funds and the set aside funds (MWMC hasn't figured out how to get their hands on these funds YET), other than the three communities mentioned above, the entire State would be void of grant funds until FY 86 which is over 4 years from this date.

Adoption of this policy is in complete conflict with Agenda Item No. E (2) which we will comment on later in this report. Which communities have the ability to construct facilities over an appropriate time span with 100% local funds? Is it the community with over 50,000 population or under?

The adoption of this revised policy would also serve to eliminate small contracting firms, suppliers and consulting engineering firms. Many of these businesses are versatile, and may be able to change direction or emphasis with a minimum of employee layoff and financial turmoil. For those that can't make the change, they can close their doors and look elsewhere. After all, who cares?

Young
EQC
B.J. Smith

We believe that during FY 82, in which no funds are expected, the EQC should suspend all design work on the Portland, Albany, Madras, Cottage Grove, Corvallis, Deschutes Co./Terrebonne, Klamath Falls, Tri-City, and MWMC projects and request that these communities develop "a financing plan which will assure that future sewerage works construction and operation needs can be fully financed by local revenues." We would suggest that all the (81) funds on these projects which have been withheld be utilized by the Department to finance the construction of the Monroe, Silverton and Rhodo-Welch projects which are now ready to proceed, and as a result of previous EQC action on the Bend project, including the award of a "hardship grant", we would suggest the final funding of this project. If the Medford/Foothills and Roseburg/Rifle Range projects do not involve the extension of an interceptor to serve "new development", these two projects (interceptors only) could also proceed to construction.

All of these projects would result in the expenditure of \$4,370,000 versus the \$5,099,000 now planned which would allow for some cost overrun and/or additional projects, or the possible funding of the "financial planning studies".

In particular, we believe the expenditure of grant funds for design of any project at this time with construction not planned for 4, 5 or 6 years or more down the road is ridiculous. A design document which is 3 months old often needs substantial revision, let alone one that is 6 years old.

The following table indicates the affects of the adoption of the proposed Alternate I & II funding list in their current form:

	ALT. I						ALT. 2					
	SMALL CITY ¹			BIG CITY ²			SMALL CITY ¹			BIG CITY ²		
	81	83	86	81	83	86	81	83	86	81	83	86
STUDY	2	0	0	0	0	0	2	0	0	0	0	0
DESIGN	8	1	0	14	0	0	8	0	1	14	0	0
CONSTRUCTION	0	17	5	1	1	5	0	1	14	1	3	5

FOOTNOTE:

1. Small cities include entire State except for communities listed in footnote 2.
2. Big cities include MWMC, Portland & Tri-City only.

Environmental Quality Commission
Re: Agenda Item No. E (1) & E (2)
July 17, 1981, EQC Meeting

August 11, 1981
Page 3

As one will note, the modification of the September 19, 1980 rule entirely favors the big cities. We would ask that you consider whether this policy would truly be in the best interest of the citizens of Oregon.

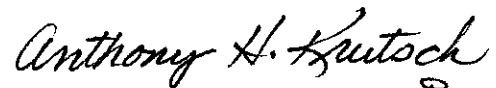
Agenda Item No. E (2)

We would concur in the basic philosophy of this proposed statement, but believe that all projects not mentioned for (81) funds in our previous discussion, be required to comply. We would also suggest the following additions and/or directions be initiated by the EQC:

1. Investigate grant funding criteria similar to that utilized by the Farmers Home Administration in which grant funds are based on a State-wide average of the citizen's actual costs. In this case, the Department would review past per capita local share costs which could be adjusted by an established inflation rate to today's equivalent cost. Each project could be broken down by dividing the project cost by population benefitted and the resulting difference between these two figures would be considered eligible for a 100 percent grant. Needless to say, the idea needs refinement, but we feel deserves investigation.
2. Direct the staff to prepare a State-wide sewer user ordinance and financial plan in which a community may insert its name and/or costs for each variable to come up with a standardized Oregon system. In this way, each community can be operating with the same set of rules and regulations, and develop a comparable cost analysis.

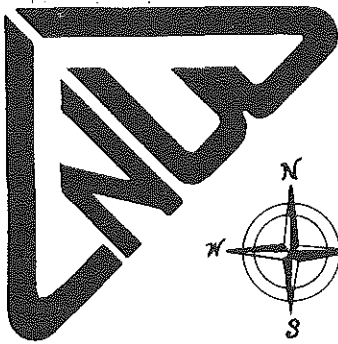
We appreciate your consideration of our comments and look forward to your decisions in these matters.

Sincerely,



Anthony H. Krutsch
Consultant

AHK:pr
cc: Mike Henry
File



CONSULTANTS NORTHWEST, INC. *B. J. Smith*

117 East 5th

P.O. Box 725, McMinnville, OR 97128

tele: (503) 472-7926

August 11, 1981

81-00.0

Environmental Quality Commission
Box 1760
Portland, OR 97207

Subject: Construction Grants Priority FY 82
City of Sheridan

Gentlemen:

On behalf of the City of Sheridan, we hereby request a reconsideration of the Cities priority points and rating for FY 82 based on the following information and comments:

GENERAL

The City is presently listed in three positions on the FY 82 funding list. The Rehabilitation project is shown with total points of C 194.62, the Infiltration/Inflow Correction project is listed with C 192.62 points, and the Interceptor project has total points of D 189.51.

WEST AREA/INTERCEPTOR

This project results from a Mandantory Annexation Order pursuant to the provisions of ORS 222.850 to 222.915 as adopted by the State Health Division dated 15 October 1981. Approximately 85 percent of septic tank systems in the West Main area were failing or of questionable function. The entire area was determined to represent a danger to public health.

It appears from our preliminary studies to this date, that the interceptor will have to connect to the existing City collection and interceptor system which is experiencing severe I/I problems.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

AUG 12 1981

OFFICE OF THE DIRECTOR

A. Project Class

With the adoption of the Mandatory Annexation Order, we believe the project class should be changed from "D" to "A" as set forth in the Construction Grants Priority Criteria, Table 1. The Order clearly identifies the contamination of roadside ditches and the South Yamhill River as well as the danger to public health.

We hereby request that the project class for the West Main Area be changed to Class "A".

B. Regulatory Emphasis

As discussed above, with the adoption of the Mandatory Annexation Order, we believe the project should be moved up from "90" points to "130" points.

We hereby request that the Department modify the regulatory emphasis points for this project to "130".

C. Population Emphasis

In a situation where a danger to the public health has been identified, it would seem that more than just the people within the area served by the extension of the interceptor would be benefitted. The Mandatory Annexation Order also recognizes the broad affects of this health hazard in the Order.

In the subject area, the possibility of transmission of disease through direct or indirect contact with raw or inadequately treated sewage, as aforementioned, occurs due to:

1. The aforementioned recreation activities carried on on the South Yamhill River and the irrigation of gardens and lawns.

2. The normal day-to-day activities being carried on in and around the residential living units.

3. Children playing in the area.

4. Domestic animals, such as dogs and cats, found in the subject area are possible vectors of disease organisms to within and outside the area.

5. Persons from outside as well as inside the area are exposed due to visitations to the area by persons from outside the area and by residents of the area frequenting shopping facilities, restaurants and public schools located outside the area either in the City of Sheridan, the City of Willamina, or the City of McMinnville.

6. Insects such as flies and mosquitoes are found in areas where standing water and sewage is present on the surface of the ground. Insects are possible vectors for transmission of disease organisms to within and outside the area.

*NOTE: UNDERLINING ADDED FOR EMPHASIS.

We hereby request the Department's reconsideration of the population affected by this project to include as a minimum the entire population of Yamhill County.

D. Stream Segment

The Department has correctly classified the Stream Segment criteria for this project.

E. Project Type

The project type has been designated as an "Interceptor to Serve Existing Development (6)" on the current priority list. Although this does describe the general intent of the project, it will be necessary to perform "Major Sewer System Rehabilitation (9)" to accomplish the project. In the alternative, we believe that the project could certainly be considered under the "Interception of Existing Discharge (8)" criteria.

We hereby request that the Department reconsider the points assigned to this project and designate it as a "Major Sewer System Rehabilitation" or "Interception of Existing Discharge" project.

CITY/I.I. CORRECTION & CITY/REHAB.

We hereby request that these two projects be elevated to the "revised" priority of the West Main Area in order to service the health hazard area annexed to the City of Sheridan under the State Health Division Mandatory Annexation Order.

SUMMARY

The following represents our estimate of total points to be assigned to the City of Sheridan projects:

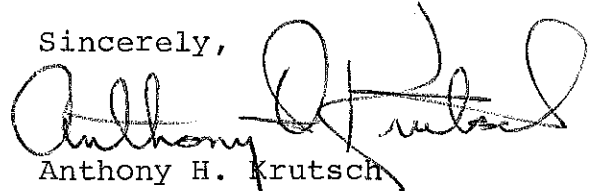
PROJECT CLASS	A
REG. EMPH.	130
POP. EMPH. (Approx.)	7 to 10
STREAM SEG.	88.91
PROJECT TYPE	<u>8 or 9</u>

EST. TOTAL 233.91 to 237.91

We would also like to advise the Department that the Updated Facilities Plan may be completed by mid-September 1981, and that the Step II grant application may be submitted prior to September 31, 1981.

We would appreciate your prompt review of this matter, and look forward to your revisions to assist the City in meeting the requirements of DEQ and the State Health Division on correction of this identified public health hazard.

Sincerely,


Anthony H. Krutsch
Consultant

AHK:pr
cc: City of Sheridan
DEQ-Salem (Steve Downs)
Mike Henry
File

(written testimony) Item K

PROPOSAL FOR 3 DAY A WEEK BURNING BAN

Submitted by: Logan Ramsey

3026 N.W.Skyline Blvd

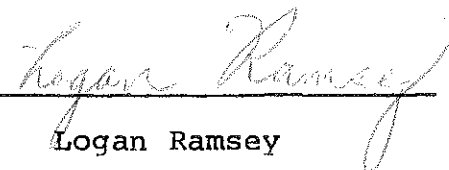
Portland, OR 97229

I am proposing a three day a week all inclusive burning ban. That is; that no burning of any kind (Forestry, Agricultural, and Back Yard) be allowed on Fridays, Saturdays, and Sundays. Then if weather conditions permit, burning be allowed on Mondays, Tuesdays, Wednesdays, and Thursdays. That way people would be able to enjoy clean air on their weekends. As it is we are continually plagued with moderate air pollution. The psychological impact of this cannot be weighed, but it is surely depressing to the human spirit to always be surrounded by dingy air. As Human Beings we have a right to clean air. So at least allow us to have clean air on our days off. For those who need to burn waste, a four day period every week should be adequate to get the job done. I feel this proposal would balance the rights of people to burn waste with the rights of all people to have clean air.

Please give this proposal the serious consideration it deserves.

Thank you

signed


Logan Ramsey

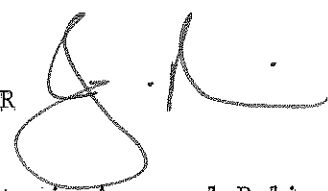
Date August 28, 1981

ADVANCE ENGINEERING

James F. Nims
Civil Engineer

TO: State of Oregon Environmental Quality Commission
522 S. W. Fifth Avenue
Portland, Oregon 97204

FROM: JAMES F. NIMS, P.E., L.S., CIVIL ENGINEER



RE: Suggested Information Memo for Proposed Interim Approval Policy
for On-Site Sewage Disposal Systems

This information is sent to you in an effort to assist in implementation of this policy. It was suggested that all plans received at the Department of Environmental Services after a given date will be required to comply with this policy.

TABLE OF CONTENTS

Part I.	Definitions	Page 1
Part II.	Background and Criteria	Page 2
Part III.	Policy	Page 3
Part IV.	Approval to Construct	Page 4
Part V.	Approval to Operate	Page 7

- Attachments:
1. How to Obtain Approvals
 2. Fact Sheet for Owners
 3. Draft and Affidavit
 4. Approved Laboratories

PART I. DEFINITIONS

The following are defined for use with this policy:

1. "Aerobic treatment unit" means the same as a package plant.
2. "Alternative on-site sewage disposal system" means an individual sewage system that does comply with the requirements of B.O.D. 20 MG/Liter and a suspended solids of 40 MG/Liter in effluent.
3. "Conventional septic tank-leach system" means a wastewater disposal system that meets the requirements to standards as shown.
4. "Evaporation lagoon" means a pond used to totally contain all waste water effluent, except for percolation through the bottom if allowed. Most or all of the effluent evaporates.
5. "Management agency" means a private company, public organization, sanitary district, political subdivision or homeowners' organization formed for the specific purpose of operation and maintenance of sewage treatment and disposal systems.
6. "On-site sewage disposal system" means a sewage disposal system which collects, treats and disposes of sewage, excepting a certain amount of solids, within the boundaries of a single lot, usually for a single family.
7. "Package plant" means aerobic treatment followed by either subsurface or surface disposal.
8. "Septic tank" means anaerobic digestion followed by subsurface disposal.
9. "Subsurface disposal" means:
 - a. Conventional leaching pits and trenches and other infiltration to soil/groundwater systems.
 - b. Evapotranspiration beds as designed in State of Oregon Guide Lines.
 - c. Subsurface irrigation.
 - d. Any combination of the above.
10. "Subsurface irrigation" means subsurface reuse of effluent for irrigation of plants. Some effluent will percolate and most will be disposed of by evapotranspiration.
11. "Surface disposal" means:
 - a. Evaporation.
 - b. Above-ground application for subsurface infiltration.

- c. Reuse.
- d. Any combination of the above.

PART II. BACKGROUND AND CRITERIA

A. Background

In many locations, on-site disposal of sewage and household wastewater has been successfully accomplished using septic tank systems. Properly located and constructed, such systems can be expected to perform satisfactorily for a considerable period of time. As the population increases and more houses are built in rural settings, the amount of land suitable for septic tank systems has declined. With this decline in the availability of suitable sites, there has been an increase in the need for design criteria for alternative on-site sewage disposal systems.

In the past, design criteria for alternative on-site sewage disposal systems was not established. This was done to allow flexibility and provide for creative engineering. Unfortunately, experience has shown that most systems are being designed by trial-and-error in an attempt to see what will be acceptable to the Environmental Services. This in turn has created frustration and misunderstanding by those attempting to obtain approval for alternative on-site sewage disposal systems.

It is reported that many states have outlawed certain on-site sewage disposal systems, particularly those using extended aeration. This prohibition has been due to maintenance problems and the lack of understanding of the nature and purpose of the units on the part of the individual homeowner.

B. Existing Criteria

Existing criteria is often inadequate and may not apply to single family homes. However, criteria does exist for the conventional septic tank system, aerobic treatment units, reuse of wastewater, evapotranspiration, and some other forms of disposal.

C. Final Criteria

The Department has recognized the desirability of revising its Engineering criteria related to underground disposal systems, and that the revision should set forth criteria for other on-site disposal systems. The revision of criteria and the establishment of other on-site criteria will of necessity take considerable time. The effort will need to be coordinated with the manufacturers, contractors, installers, real estate entities, local health departments, local planning and zoning agencies, and local water quality planning agencies. Included in this process will be the need for many public meetings and reviews.

D. Interim Criteria

Until the final criteria described above can be developed, the interim policy set forth in this memorandum will be used. Included in the process by which approvals are obtained from the Department of Environmental Services and the local health department, if applicable, for on-site disposal systems, except for conventional septic tank-leach field systems (Attachment #1). Also included are design and other requirements for obtaining an approval to construct, the operational responsibilities of the property owner, a fact sheet (Attachment #2) detailing general operational costs of various alternatives, and a copy of an affidavit of understanding (Attachment #3) that will be required from each owner.

PART III. POLICY

A. Treatment

1. Septic tank subsurface disposal systems are preferred where on-site disposal is required.
2. Alternative on-site disposal systems will be considered only if the ultimate property/homeowner is aware of his responsibility for operation and maintenance of the health hazard, and of his potential personal liability. The owner must agree to maintain the system as required and perform any tests and submit any reports required.
3. Wherever possible, aerobic treatment units should be maintained by a management agency.

B. Effluent Disposal

1. Subsurface disposal is preferred in the form of percolation, evapotranspiration or irrigation.
2. All surface disposal and uses must comply with applicable treatment and reuse regulations.
3. All surface disposal must be contained on site (this does not apply to wastewater that is percolated, evaporated, transpired or trucked from the site.)
4. Lining of evapotranspiration (ET) or similar disposal areas and special sealing of treatment units may be required where there is a high water table, underlying broken or creviced rock strata, excessive percolation rates with nearby surface and/or subsurface bodies of water or if blasting is required to form the disposal field.

C. Procedures

1. Approval to construct or operate conventional on-site sewage disposal systems must be obtained from the local Environmental Services Department.
2. Approvals for alternative on-site sewage disposal systems must be obtained from the Clackamas County Environmental Services.

3. An approved Operation and Maintenance manual for package aerobic plants must be available to the owner and local Environmental Services Department prior to issuance of the Certificate of Approval to Construct.
4. If the facility is being built by a contractor or developer for speculation, full disclosure must be given to the prospective buyers regarding the alternative on-site sewage disposal system prior to completion of the sale. Such information should be contained in any property reports.

PART IV. APPROVAL TO CONSTRUCT

Before construction begins on any on-site disposal system, a Certificate of Approval to Construct must be obtained.

- A. Conventional Septic Tank-Leach Field System (contact the local Environmental Services Department)
- B. Alternative On-Site Sewage Disposal Systems
 1. Document Requirements. The following documents must be submitted to and approved by the Department of Environmental Services. A Certificate of Approval to Construct can be issued after compliance with a. through f. below.
 - a. Application. Completed form CCESD/_____, Application for Approval to Construct Water and/or Wastewater Facilities.
 - b. County Approval. Completed form to Public Works/_____, County Approval of Water and/or Wastewater project.
 - c. Plans and Specifications. Sealed and signed by a registered engineer.
 - d. Operation and Maintenance Manual. A manual to be approved can be submitted with the application, but the Certificate of Approval to Construct will not be granted until the manual has been approved and the required affidavit submitted. The Operation and Maintenance manual must conform to Engineering criteria, and must contain:
 - i. A schedule of daily, weekly, monthly, and yearly operation and maintenance requirements together with instructions for completing each operation and maintenance item.
 - ii. Testing requirements, methods, frequencies, and reporting responsibilities (see Part V.B.2.d.).
 - iii. Effluent quality requirements, if any (see Part IV.B.2.a.).
 - iv. Pumping requirements.
 - v. Power requirements.
 - vi. Spare parts list with current prices.

vii. Any other information necessary for proper operation of the facility.

- e. Affidavit. Signed by the owner that he has read and understands the operation and maintenance requirements, that he has an Operation and Maintenance manual, and that he will do the required maintenance, testing, and reporting (see Attachment #3).
- f. A report from the local Environmental Services Department with their findings of the required site inspection together with any recommendations. The report should be included on form ESD/____ (see Part IV.B.i.b above) and contain any conditions required for approval.

2. Design Requirements.

a. Effluent quality requirements:

i. Subsurface disposal--none.

ii. Surface disposal following secondary treatment plus disinfection.

- (a) The total coliform concentration shall not exceed a monthly arithmetic average of 5,000 per 100 ml, nor shall any one sample exceed 20,000 per 100 ml.
- (b) The fecal coliform concentration shall not exceed a monthly arithmetic average of 1,000 per 100 ml, nor shall any one sample exceed 4,000 per 100 ml.
- (c) The monthly arithmetic averages for total and fecal coliform shall be based on at least two samples per month.
- (d) The total chlorine residual shall be 2 mg/l after 15-minute contact time.

iii. Surface disposal following tertiary treatment plus disinfection.

- (a) The five-day BOD concentration shall not exceed a monthly arithmetic average of 10 mg/l.
- (b) The suspended solids concentration shall not exceed a monthly arithmetic average of 10 mg/l.
- (c) The fecal coliform concentration shall not exceed a monthly arithmetic average of 200 per 100 ml.
- (d) The monthly arithmetic average for BOD, suspended solids and fecal coliform shall be based on a minimum five samples taken on separate days within a 15-day period of time.

- (e) The total chlorine residual shall be 2 mg/l after 15-minute contact time.
- b. Treatment units:
 - i. Aerobic package plant shall comply with design requirements in Engineering criteria.
- c. Effluent disposal area (water carriage systems):
 - i. Regardless of treatment type, the total effluent volume must be assimilated on site.
 - ii. All surface and subsurface irrigation disposal systems will be required to comply with the equivalent area requirements for evapotranspiration systems contained in State of Oregon, Department of Environmental Services.
 - iii. All on-site disposal areas, except for surface irrigation, will require room for a 100 per cent expansion, unless with approval of the Department, expansion area for surface and subsurface is not required because of adequate effluent storage. Adequate effluent storage must compensate for the volume of effluent represented by the difference between the average evapotranspiration rate and the minimum evapotranspiration rate computed as a water balance on a monthly basis.
 - iv. Subsurface disposal areas must comply with one of the following:
 - (a) Conventional leach trenches and pits are to be in compliance with Engineering Standards.
 - (b) Evapotranspiration (ET) is to be in compliance with State of OREGON, Department of Environmental Services.
 - (c) Subsurface irrigation requires an area equal to twice that of an ET bed. Unless other storage facilities are provided, year-around ET must be matched to wastewater produced.
 - (d) Other disposal methods will be considered for approval if substantiated by test data.
 - v. Surface disposal areas must comply with one of the following: (Reuse must be in compliance with reclaimed waste regulations, except a minimum of secondary treatment plus disinfection is required.)
 - (a) Evaporation lagoons are acceptable if they are in compliance with Engineering Standards, including set-back, construction and fencing requirements.

(b) Secondary treatment plus disinfection and reuse will be acceptable under the following conditions:

- * The disposal area must be enclosed by a chain link or solid fence at least four feet high and cannot be part of any front or back yards.
- * The disposal area must be posted.
- * Children may not play in the disposal area.
- * The disposal area must be secured by lock and key, or otherwise protected from entry by children and household pets.

(c) Tertiary treatment plus disinfection and reuse will be acceptable for all disposal not covered in (a) and (b) above.

(d) Other surface disposal methods will be considered on a case-by-case basis if substantiated by test data.

d. Location:

i. Setbacks for ET beds and subsurface and surface irrigation are the same as those contained in Engineering Standards for ET beds and disposal trenches and pits.

ii. Slopes. Consideration must be given to applicable slopes and the requirement to contain all effluent on the property.

PART V. APPROVAL TO OPERATE

Before operation begins on any on-site disposal system, a Certificate of Approval to Operate must be obtained.

A. Conventional Septic Tank-Leach Field System (contact the local Environmental Services Department)

B. Other On-Site Sewage Disposal Systems

1. A Certificate of Approval to Operate cannot be issued until the facility has been constructed in accordance with approved plans and specifications or approved modifications. Conformance with the approved construction plans will be verified by an on-site inspection conducted by either the State or local Department of Environmental Services.
2. When issued, the Certificate of Approval to Operate may contain, but not be limited to, any or all of the following:
 - a. A requirement that all wastewater be contained for disposal within the property boundaries.
 - b. Disposal area requirements including provisions for future expansion if required.

- c. That operation and maintenance must be in accordance with the approved Operation and Maintenance manual.
 - d. Monitoring requirements, including testing, sampling, and reporting.
 - i. All facilities practicing disinfection by chlorination will require that a log of chlorine residual be kept. It is desirable that chlorine residual measurements be performed daily if possible, with a minimum of once per week. Copies of test results should be submitted quarterly to the State and local Environmental Services Department as specified.
 - ii. Compliance with the standards set forth in Standards above, except for chlorine residual, will require that the owner verify such compliance on an annual basis. Samples must be collected on different days and times. Collection, shipment and analysis of all samples are the responsibility of the owner and shall be in accordance with procedures approved by the Department. In general, this shall require that samples be collected in clean containers and shipped to an approved laboratory (Attachment #4). The selected laboratory should be contacted before collecting samples. Samples should be received by the laboratory within six hours of time of collection. Analytical results should be submitted to the Department within 30 days of receipt of all analytical results.
 - e. The Department will reserve the right of entry for State and local officials to inspect the facility and collect any samples needed to determine compliance with any standards.
 - f. A requirement that whenever the property is sold, the new owner must submit all required affidavits.
3. Failure to comply with any conditions or provisions of the Certificate of Approval to Operate may subject the owner of the facility to revocation of the certificate or legal action by the Department of Environmental Services. Another acceptable means of wastewater treatment and disposal may be required.

ATTACHMENT 1

HOW TO OBTAIN APPROVAL TO CONSTRUCT AND OPERATE
AN ON-SITE TREATMENT AND DISPOSAL SYSTEM
(Other Than Conventional Septic Tank-Leach Field System)

1. Obtain the necessary application forms (DES/____ and instructions from county Environmental Services Department.
2. Read all requirements. Be certain you understand all requirements for both construction and operation. Be aware of the operational costs and problems. Understand any liabilities, (see fact sheet for on-site disposal systems).
3. Have system designed by a registered engineer. Complete all forms (see 1. above) and affidavits. The application to construct must include the owner's address.
4. Submit application to the County Environmental Services Department.
5. The County Environmental Services Department reviews the application. A site inspection is completed to verify:
 - a. That the required site plan adequately represents the area.
 - b. That there are no unusual conditions.
 - c. Whether or not a liner is required.
6. The County Environmental Services Department prepares a summary of its findings and presents the application together with any recommendations to applicant.
7. The completed application will be reviewed by County Environmental Services Department for compliance with health and design standards. Incomplete data will delay the processing of the application.
8. A Certificate of Approval to Construct will be issued by Clackamas County Environmental Services Department for those applications meeting all requirements.
9. Approval to Construct transmitted to the County Public Works.
10. County Environmental Services Department issues County permit.
11. Construction can be initiated by owner or his agent. Notifications must be given to the County and the State that construction has been started.
12. A final inspection of construction must be completed by the Clackamas County Environmental Services. County inspections may be required at the option of the County.
13. If construction has been completed in accordance with all approved plans and specifications and approved modification, if any, CCES will issue a Certificate of Approval to operate. This approval will set forth any operation restrictions on requirements, such as effluent standards, monitoring frequencies and reporting responsibilities. The approval will require all effluent to be contained within the property's boundaries, that the system be operated in accordance with the approved Operation and Maintenance manual, and may set forth disposal area requirements, including reserve for expansion if required (see approval policy for on-site sewage disposal systems).
14. The system can be placed into operation and can remain in operation as long as operational requirements are met.

ESTIMATED COSTS AND REQUIREMENTS FOR
ALTERNATE INDIVIDUAL SEWAGE DISPOSAL SYSTEMS

FACT SHEET FOR OWNERS

PURPOSE

The purpose of this Fact Sheet is to give information to people who are considering the use of an alternative on-site sewage disposal system rather than a conventional septic tank-leach field disposal system. Consider each system carefully because there are several requirements pertaining to an alternative on-site system that will increase the capital and operating cost significantly over the cost for a conventional system. Described below are the most commonly used alternative on-site disposal systems including:

1. General requirements for use.
2. Standards that the treated wastewater will have to meet (Table 1).
3. Monitoring and reporting requirements (Table 1).
4. An estimate of costs associated with these requirements (Table 2).

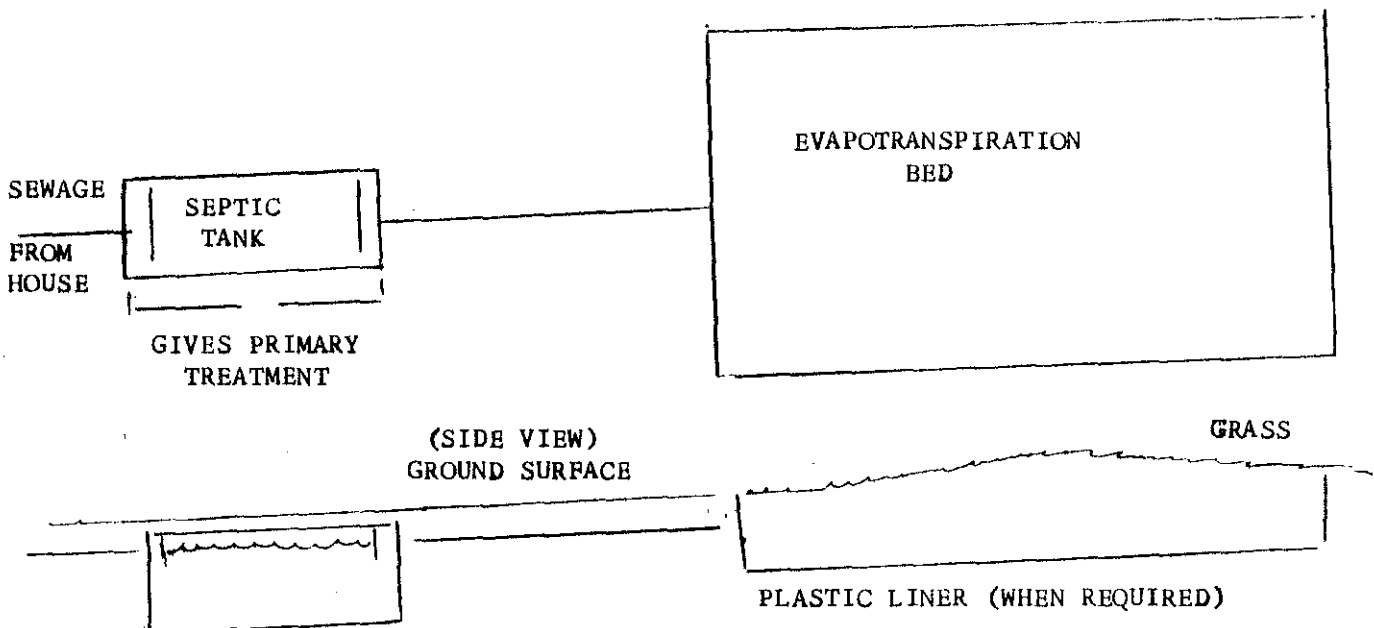
ALTERNATIVE ON-SITE SEWAGE DISPOSAL SYSTEMS

A. SEPTIC TANK WITH EVAPOTRANSPIRATION (ET) BED

TREATMENT

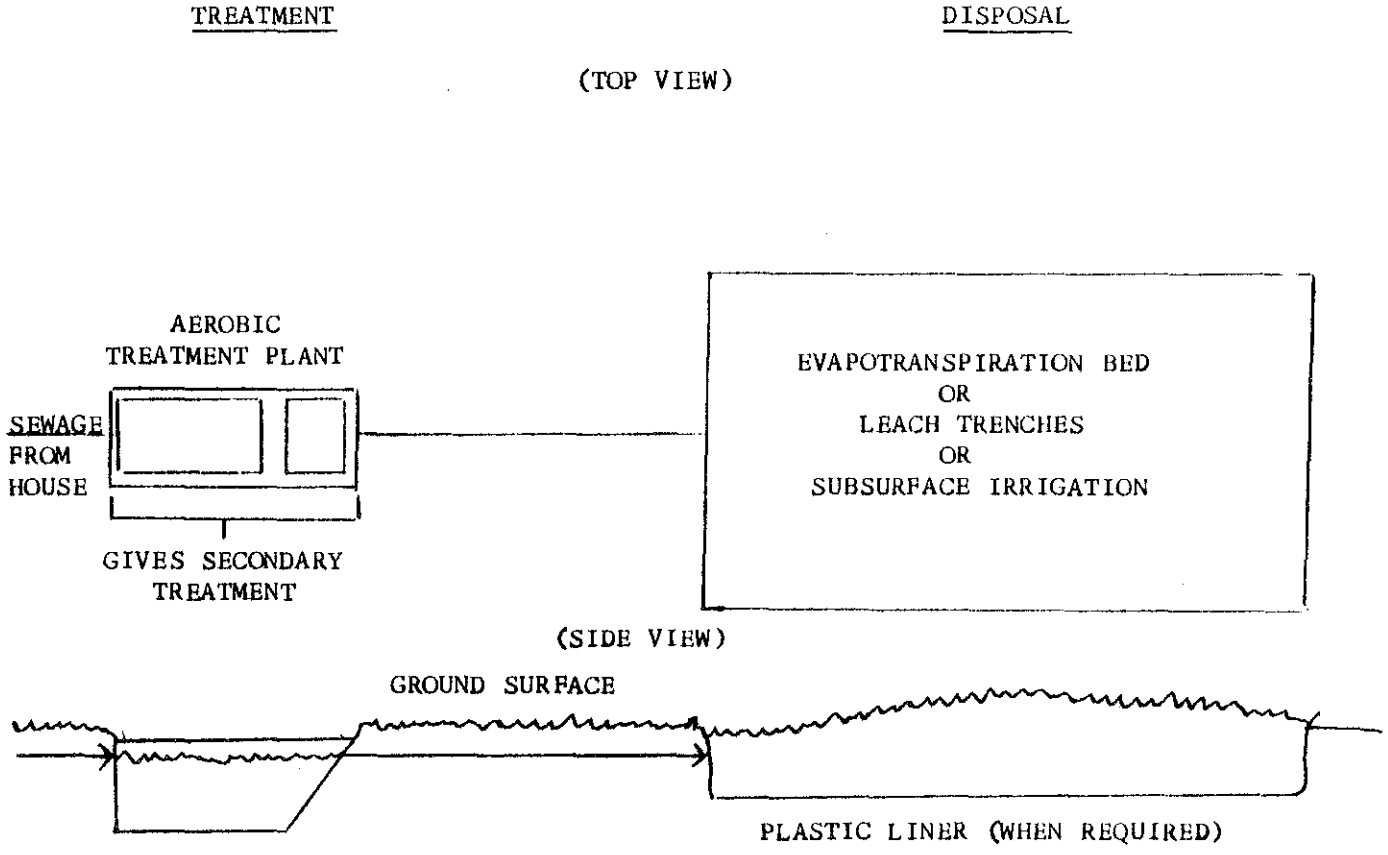
DISPOSAL

(TOP VIEW)



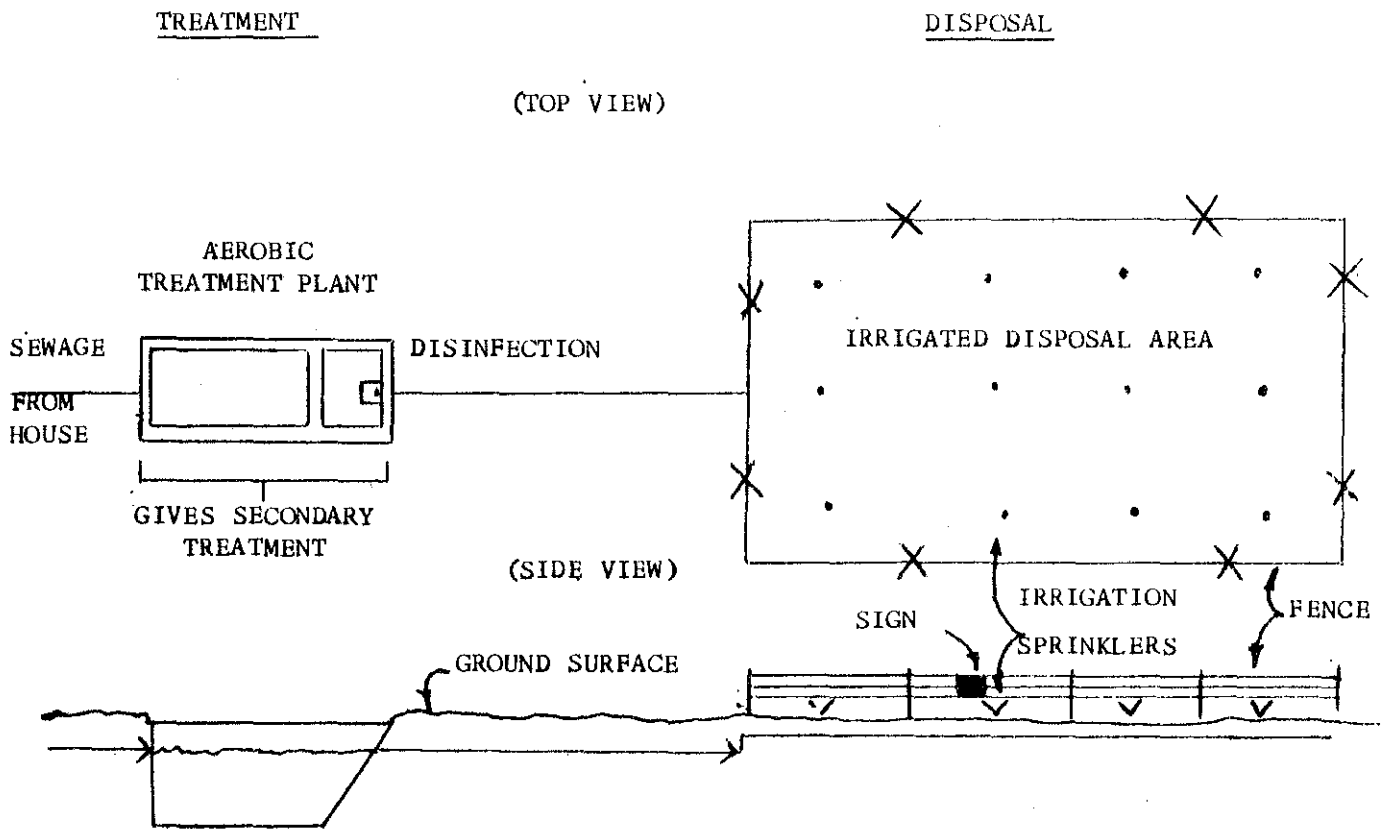
This system is generally used when a percolation (leach field) disposal system cannot be used due to soil conditions. An ET bed consists of a 3-foot to 5-foot deep bed with a variable surface area depending on the evapotranspiration rate. Layers of large gravel, pea gravel, sand and soil make up the bed. The area may be planted with trees, shrubs, flowers and/or grass.

B. AEROBIC WASTEWATER TREATMENT PLANT WITH SUBSURFACE DISPOSAL.



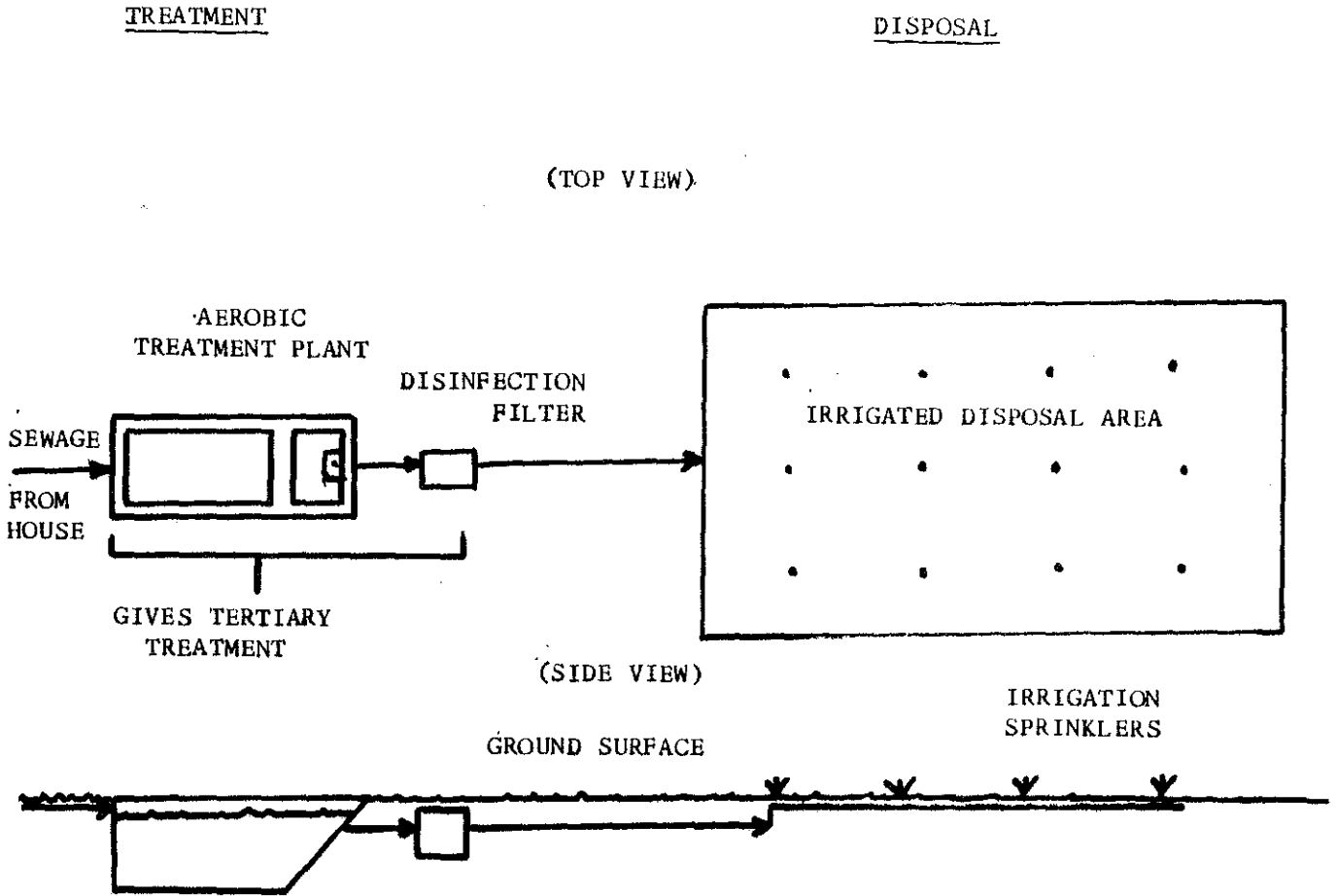
This system can be used with a conventional leach disposal system, an ET bed or subsurface irrigation. Additional future options for above-ground irrigation using the wastewater may exist if this system is used.

C. AEROBIC WASTEWATER TREATMENT PLANT WITH SECONDARY TREATMENT, DISINFECTION AND SURFACE DISPOSAL.



1. The disposal area must be enclosed by a fence and cannot be part of the front or back yards.
2. Signs must be posted around the disposal area stating that the area is being irrigated with contaminated water.
3. Children shall not be allowed into the disposal area.
4. The gate leading into the disposal area shall be kept under lock and key, or otherwise secured from children.
5. Requires surface area to be at least two times that of an ET bed unless sufficient storage is provided. (Required surface area will be calculated individually on each system.)

D. AEROBIC WASTEWATER TREATMENT PLANT WITH TERTIARY TREATMENT, DISINFECTION AND SURFACE DISPOSAL.



1. Required where:

- a. Disposal area not enclosed by a fence.
- b. Applied to crops as specified in CCES Waste Regulations.

2. Requires effective area to be at least two times that of an ET bed unless sufficient storage is provided. (Required surface area will be calculated individually on each system).

ATTACHMENT 2

III. FAILURE TO MEET OPERATION AND MAINTENANCE OR MONITORING REQUIREMENTS, OR TREATMENT STANDARDS, WILL CONSTITUTE GROUNDS FOR REVOCATION OF AN APPROVAL TO OPERATE A WASTEWATER SYSTEM. IF THIS CONDITION OCCURS, ANOTHER ACCEPTABLE MEANS OF WASTEWATER TREATMENT AND DISPOSAL MAY BE REQUIRED.

For additional information contact:

County Sanitarian
Clackamas County Environmental Services Department
902 Abernethy Road
Oregon City, Oregon
Phone: 655-8521

DRAFT OF AFFIDAVIT

I, _____, hereby certify that I have in my possession a copy of the Operation and Maintenance manual, which has been approved by the Clackamas County Environmental Services, for the

(Name and model number of treatment plant)

I have read and completely understand the contents of this manual, including all operational requirements, all maintenance requirements, all monitoring requirements, all reporting requirements, and all costs which may be incurred because of these requirements. I will comply fully with all aspects of this manual.

In the event that I sell, lease, or otherwise convey ownership of the treatment plant, I will notify the Clackamas County Environmental Services Department in writing within one week so that my responsibility can be released.

(Owner's Signature)

This instrument was acknowledged before me this _____
(Date, month, year)

(Notary's Signature and Seal)

ATTACHMENT 4

C L A C K A M A S C O U N T Y E N V I R O N M E N T A L S E R V I C E S

Division of Disease Control Services - Bureau of Epidemiology and Laboratory Services
Laboratory Certification and Licensure Section
902 Abernethy Road
Oregon City, Oregon
Phone 655-8521

LABORATORIES CERTIFIED TO PERFORM
MICROBIOLOGICAL AND/OR CHEMICAL
TESTS ON PUBLIC DRINKING WATER
In Accordance with the Clean Drinking Water Act

FACILITY	AUTH. NUMBER	PARAMETERS APPROVED TO PERFORM
		<u>010</u> <u>011</u> <u>020</u> <u>021</u> <u>030</u> <u>031</u> <u>032</u> <u>033</u> <u>034</u> <u>035</u> <u>036</u> <u>037</u> <u>038</u> <u>039</u>
		<u>010</u> <u>011</u> <u>020</u> <u>021</u> <u>030</u> <u>031</u> <u>032</u> <u>033</u> <u>034</u> <u>035</u> <u>036</u> <u>037</u> <u>038</u> <u>039</u>
		<u>010</u> <u>011</u> <u>020</u> <u>021</u> <u>030</u> <u>031</u> <u>032</u> <u>033</u> <u>034</u> <u>035</u> <u>036</u> <u>037</u> <u>038</u> <u>039</u>
		<u>010</u> <u>011</u> <u>020</u> <u>021</u> <u>030</u> <u>031</u> <u>032</u> <u>033</u> <u>034</u> <u>035</u> <u>036</u> <u>037</u> <u>038</u> <u>039</u>
		<u>010</u> <u>011</u> <u>020</u> <u>021</u> <u>030</u> <u>031</u> <u>032</u> <u>033</u> <u>034</u> <u>035</u> <u>036</u> <u>037</u> <u>038</u> <u>039</u>

KEY TO PARAMETERS

MICROBIOLOGY:
010 - Multiple Tube Fermentation
011 - Membrane Filter

ORGANIC CHEMISTRY:
020-Chlorinated Hydrocarbons
021-Chlorophenoxys

INORGANIC CHEMISTRY:
030-Arsenic 035-Lead
031-Barium 036-Mercury
032-Cadmium 037-Nitrate
033-Chromium 038-Selenium
034-Fluoride 039-Silver

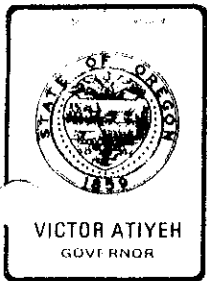
RADIOANALYSIS:
040-Cesium 044-Radium
041-Gross alpha/ 045-Strontium
 beta 046-Tritium
042-Iodine 047-Uranium
043-Photot emitters

TABLE 1
R E Q U I R E M E N T S

	EFFLUENT STANDARDS					MONITORING		REPORTING
	Total Coliform	BOD	Suspended Solids	Fecal Coliform	Total Chlorine	Chlorine	Effluent	
Septic tank with ET bed	--	--	--	--	--	--	--	--
Aerobic WW with subsurface disposal	--	--	--	--	--	--	--	--
Aerobic WW with secondary treatment and surface disposal	5000/100 not to exceed 20,000/100 ml	--	--	1000 per 100 ml not exceeding 4000/100 ml	2.0 mg/l after 15-minute contact time	Chlorine tests each 60 days	Collect 2 samples on different days & times during 60 days once a yr. Iced samples should be received by an approved laboratory within 6 hours of collection.	Submit to ADHS analytical data for all coliform tests within 30 days of the receipt of results. Submit chlorine residual tests results to C.C.E.S. quarterly (Use approved forms.)
Aerobic WW with tertiary treatment and surface disposal	--	10 mg/l	10 mg/l	200/100 ml	2.0 mg/l after 15-minute contact time	Chlorine tests each 60 days	Collect 5 samples on different days & times during 60 day period once a yr. Iced samples should be received by an approved laboratory within 6 hrs of collection.	Submit to ADHS analytical data and results for BOD, suspended solids and fecal coliform within 30 days of receipt. Submit chlorine residual tests results to C.C.E.S. quarterly. (Use approved forms.)

TABLE 2
COSTS (APPROXIMATE 1979 PRICES)

On-Site Sewage Disposal Systems	CAPITAL			OPERATION		MONITORING					Total Annual Opera/ & Monitor (\$/yr)	Comments
	Treatment Facility \$	Effluent Disposal \$	Chlorine Residual Test Kit \$	Pumping (\$/Year)	Power (\$/yr) 4KWH/da	Fecal Coliform (\$/yr)	Total Coliform (\$/yr)	BOD (\$/yr)	Suspended Solids (\$/yr)	Chlorine Residual (\$/yr)		
Septic tank with ET bed disposal	\$500 to \$1,200	ET bed \$3/sq.ft.	--	\$30	--	--	--	--	--	--	\$30	
Aerobic plant with subsurface disposal	\$2,000 to \$4,000	ET bed \$3/sq.ft.	--	\$30	\$43	--	--	--	--	--	\$73	Use may be advantageous where above-ground irrigation with the wastewater would be used in the future
Aerobic plant with secondary treatment & surface disposal	\$2,000 to \$4,000	Irrigation system \$300	\$15	\$30	\$43	2 tests \$34	2 tests \$34	--	--	365 tests \$12	\$153	Extra costs may be added for a service co. to do operating & monitoring
Aerobic plant with tertiary treatment & surface disposal	\$2,000 to \$4,000	Irrigation system \$300	\$15	\$30	\$43	5 tests \$85	--	5 tests \$145	5 tests \$50	365 tests \$12	\$365	Extra cost may be added for a service company to do operating & monitoring.



Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

October 23, 1980

• Thomas S. Graham, President
Rid-Waste Environmental Systems, Inc.
4005 Auburn-Folsom Rd.
Loomis, CA 95650


Dear Mr. Graham:

This is to inform you that the Rid-Waste Aerobic Sewage Treatment Plant has complied with the requirements for testing set forth in my letter of September 12, 1980. The testing of July 9th to 16th, 1979, was duplicated, as requested, during October 1980. With the "Go-Catch-It" filter the plant attained or exceeded a BOD of 20 MG/Liter and a Suspended Solids of 40 MG/Liter.

Having met the stated requirements, the Rid-Waste Aerobic Unit, with the Go-Catch-It Filter, is approved for installation in the State of Oregon as part of a subsurface or alternative sewage system in accordance with OAR 340-71-037.

You are reminded that sites must be approved for method of effluent disposal prior to installing the Rid-Waste Unit.

Sincerely,


T. Jack Osborne, Supervisor
Subsurface and Alternative
Sewage Systems Section
Water Quality Division

TJO:1
XL 207 (1)

cc: Governor Victor Atiyeh
Senator Charles Hanlon
Senator Dick Groener
Representative Caroline Magruder
Representative Ted Bugas
Mr. James Nims
Mr. Jack Cox
William H. Young
Northwest Region, DEQ

Rid-Waste Environmental Systems, Inc.



4005 Auburn - Folsom Road

Bus. (916) 652-7200 • Res. (916) 652-6383

Loomis, California 95650

AN INTRODUCTION TO THE RID-WASTE

"YELLOW SUBMARINE"

The Rid-Waste Environmental Treatment Unit more than doubles the performance of a septic tank in the removal of suspended solids. It also takes out up to nine times the B.O.D. In fact, the performance of our unit actually makes the septic tank obsolete. Our system employs both Aerobic and anaerobic bacteria throughout the treatment process. Aerobic bacteria are naturally present in house hold waste; and in the presence of oxygen, aerobic bacteria will biologically turn waste into carbon dioxide, nutrients and water. These valuable resources are then recycled as fertilizer to the soils under pressure.

The Rid-Waste Treatment plant has evolved over ten years of research and development, into a waste treatment system which is unsurpassed in quality, workability, feasibility and economics today. While we do not profess to be the panacea of the sewage industry, with the aid of our highly trained staff and the application of well researched studies and guidelines published by the Environmental Protection Agency, Rid-Waste can help build those "unbuildables".

Builders and Developers :

Do you have Sub Divisions that won't pass the tentative due to sewage problems? Is the high cost of waste treatment and disposal cutting into your profits? Are you losing prime view lots due to septic minimums and design criteria? If you have any of these problems, Rid-Waste Environmental Systems may have a solution. The "yellow submarine" is in principal and quality a scaled down central treatment plant. Designed specifically to meet the needs and solve the problems of rural developments.

If you like the idea of ecological and environmental developing with savings of up to half the anticipated disposal costs? Give Rid-Waste a call, and get those projects off the wall.

* For a more complete explanation of our capabilities, with testing and engineering plots write; Rid -Waste " Technical Manual" at the above address.

Rid-Waste Environmental Systems, Ltd.



2515 Grass Valley Hwy., Suite F

(916) 823-0416

Auburn, California 95603

ADVANTAGES OF THE RID-WASTE ENVIRONMENTAL SYSTEM

GENERAL BENEFITS:

A 1,500 gallon tank will handle a large home
Fiberglass will not rust or corrode
Scaled down city treatment plant principle
Capacity of up to 15 persons
Meets county, state and federal codes
Can be designed for larger requirements
No additives required
Garbage disposals, dish washers O.K.
Adds value to your home

INSTALLATION:

Delivered on a pick-up truck, easily maneuvered
into space
Unaffected by high water table
Watertight - no leakage from the tank
Simple wiring system
Custom engineered for your home
Less problem in hard-to-build areas
Facilitates location of disposal fields

MAINTENANCE:

Local distributors maintain system
Maintenance Program (you receive none with an
old-fashioned septic tank
Toll-free 24-hour telephone service
Warranted tanks and parts
Pumping seldom needed - system is efficient
No back-up in home

ENVIRONMENT:

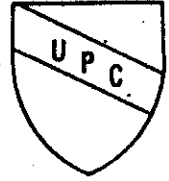
Non-polluting
Meets and exceeds Federal Standards
Effluent can be used for irrigation and
fertilization
Extended disposal field life
Clean and odorless

COST:

Economical
Extended tank and field life

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS

A NON-PROFIT CORPORATION



RECOMMENDATION OF THE PLUMBING RESEARCH COMMITTEE

The product described herein has been reviewed, tested and recommended for acceptance by the Research Committee of the International Association of Plumbing and Mechanical Officials as meeting the requirements of the UNIFORM PLUMBING CODE. This recommendation is subject to the conditions set forth in the characteristics below and is not to be construed as assurance or guarantee by the Association of product acceptance by local jurisdiction or authorities using the UNIFORM PLUMBING CODE or otherwise affiliated with the Association.

Accepted April 1980

Void after April 1981

PRODUCT: Septic Tanks (Fiberglass) FILE NO. 1215

APPLICANT: Fiber Erectors, Inc.
1450 Vista Way
Red Bluff, CA 96080

MODEL: DST 8, 10, 12, 15

IDENTIFICATION: Manufacturer's name or trademark, model number or size, date made on glassed in place label near outlet.

CHARACTERISTICS: Fiberglass septic tank in 4 nominal sizes 750, 1000, 1200 and 1500 gallons. Tanks comply to IAPMO Interim Guide Criteria IGC-3 (latest edition) and shall be installed in accordance with the manufacturer's recommendations.

This recommendation is for the period indicated herein and is void after date shown above. Any change in material, design without having first obtained the approval of the Research Committee or evidence of inferior workmanship, or failure to follow an equitable service policy may be deemed as sufficient cause for revocation of this recommendation. Reference to this form for advertising purposes may be made only by specific written permission of International Association of Plumbing and Mechanical Officials. This authorizes the use of the UPC shield on products covered by this certificate.

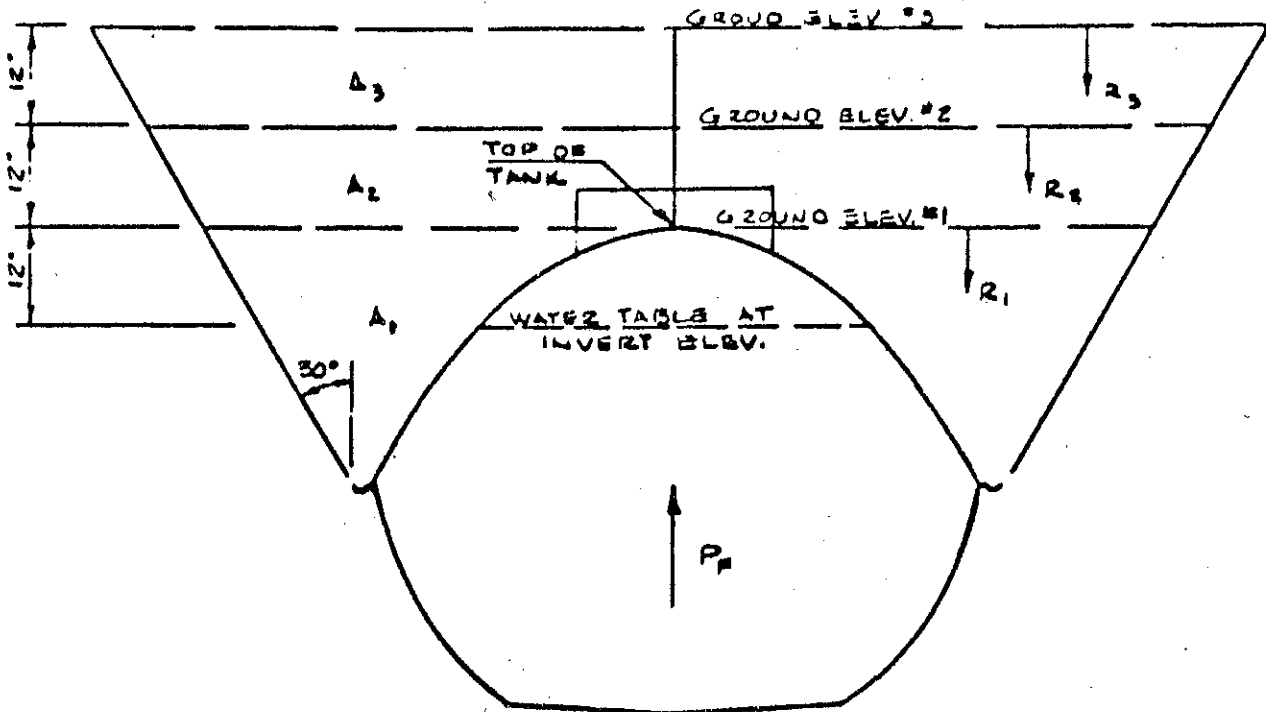
Howard Giza

CHAIRMAN, RESEARCH COMMITTEE (UPC)

Tom Nigham

EXECUTIVE DIRECTOR

Sponsor of Uniform Plumbing Code, Uniform Swimming Pool Code,
Uniform Solar Energy Code and Uniform Mechanical Code



DEFINITIONS:

- P_f = UPWARD PRESSURE CAUSING FLOTATION WHEN TANK IS EMPTY.
- R_1 = RESISTING PRESSURE OF SOIL ACTING DOWNWARD WITH SURFACE OF SOIL AT TOP OF TANK.
- R_2 = RESISTING PRESSURE OF SOIL ACTING DOWNWARD WITH SURFACE OF SOIL AT 12" ABOVE TANK.
- R_3 = RESISTING PRESSURE OF SOIL ACTING DOWNWARD WITH SURFACE OF SOIL AT 24" ABOVE TANK.

ASSUMPTIONS:

- 1) TANK HAS BEEN EMPTIED.
- 2) WATER TABLE IS AT 12" BELOW TOP OF TANK.
- 3) SHEAR ANGLE OF SOIL IS AT 30° FROM VERTICAL.
- 4) WEIGHT OF LOOSE BACKFILL MATERIAL IS 100 LBS./CU. FT.
- 5) LARGEST TANK IS MOST CRITICAL SITUATION - 1500 GAL.

CALCULATIONS:

$$P_f = 1500 \text{ GAL.} \times 8.33 \text{ LBS./GAL.} = 12,500 \text{ LBS. } \uparrow$$

$R =$ TOTAL WEIGHT OF SOIL = AREA OF SOIL SECTION FROM TANK OUTWARD X PERIMETER OF AREA CENTROID X UNIT WT. SOIL.

$$R_1 = 5.36 \text{ } \uparrow \times 21.15' \times 100 = 11,340 \text{ LBS.} < 12,500 \text{ LBS.} = 1,160 \text{ LBS. } \uparrow$$

$$R_2 = (5.36 \text{ } \uparrow + 5.08 \text{ } \uparrow) \times 21.27' \times 100 = 22,200 \text{ LBS.} > 12,500 = 9,720 \text{ LBS. } \downarrow$$

$$R_3 = (5.36 \text{ } \uparrow + 5.08 \text{ } \uparrow + 5.67 \text{ } \uparrow) \times 21.30' \times 100 = 34,300 \text{ LBS.} > 12,500 = 21,800 \text{ LBS. } \downarrow$$

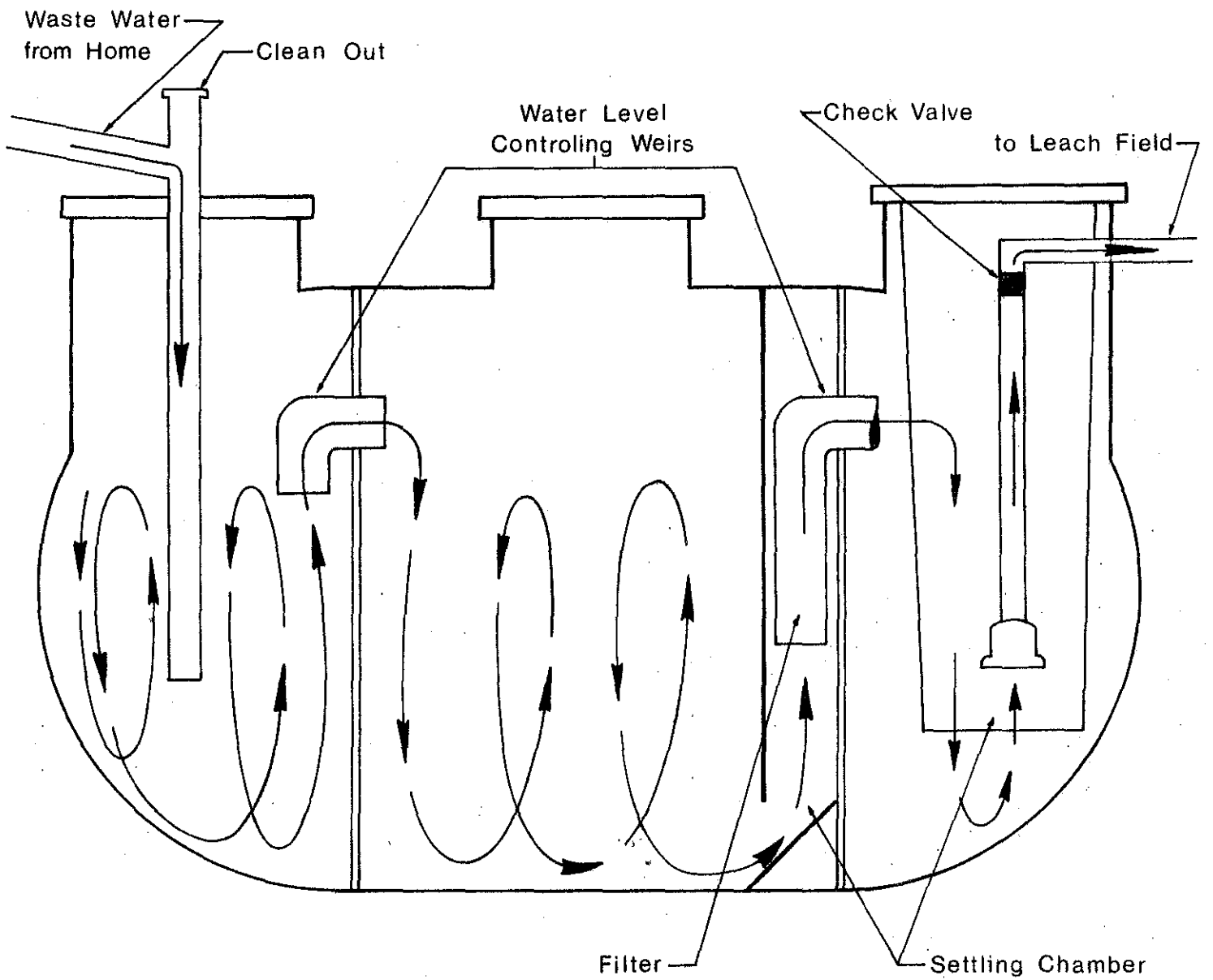
CONCLUSION:

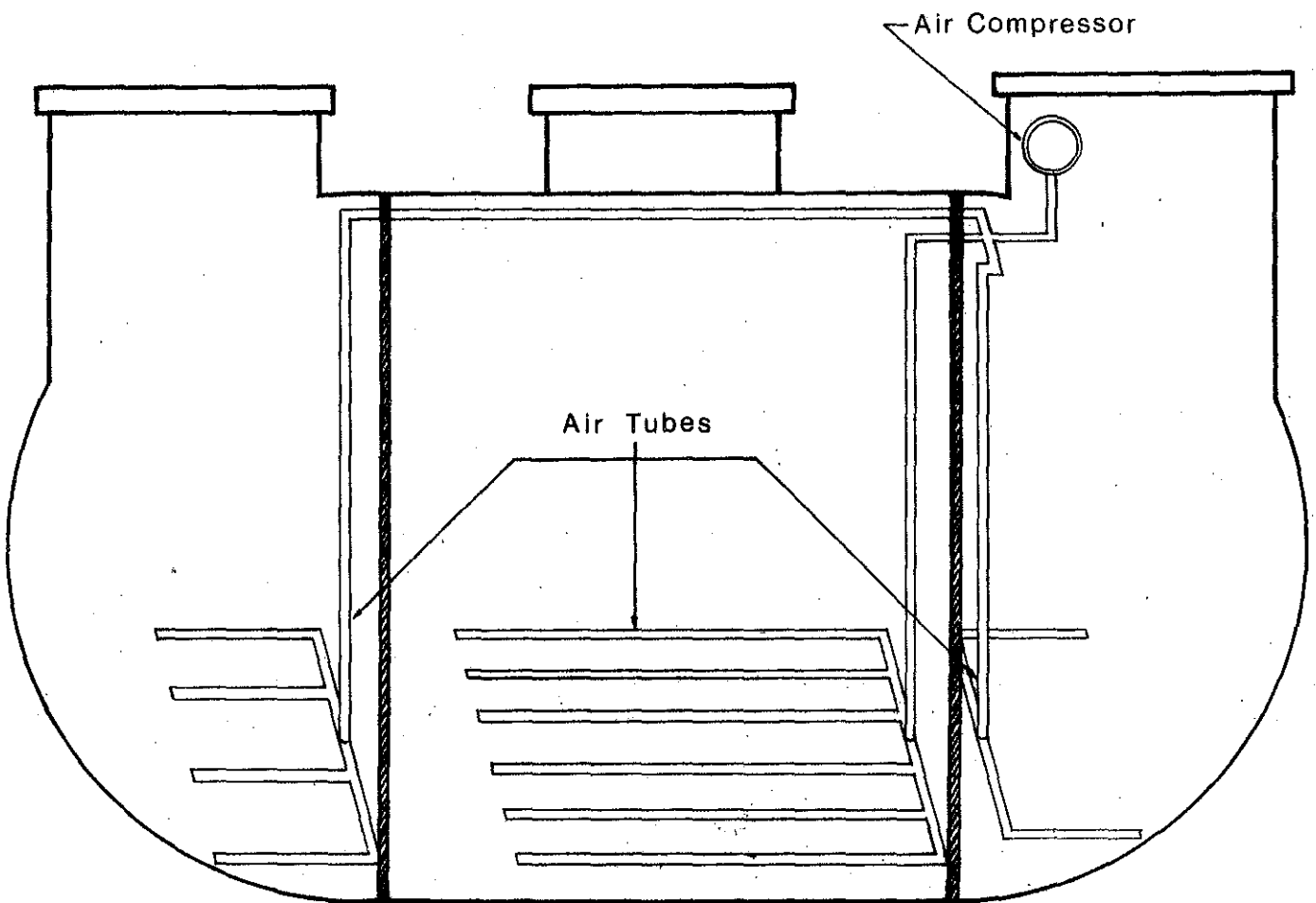
BY USING THE LARGEST TANK, WHICH WOULD YIELD THE MOST CRITICAL BUOYANCY FACTOR, IT HAS BEEN DETERMINED THAT APPROXIMATELY 1" OF FILL OVER TOP OF TANK WOULD STABILIZE THE UNIT FROM SURFACING DUE TO HIGH WATER TABLE SITUATIONS. THIS WOULD NOT BE TRUE OF SQUARE OR RECTANGULAR SECTION TANKS SINCE THE SOIL ABOVE THE TANK IS LIMITED TO A MUCH SMALLER CROSS-SECTIONAL AREA.



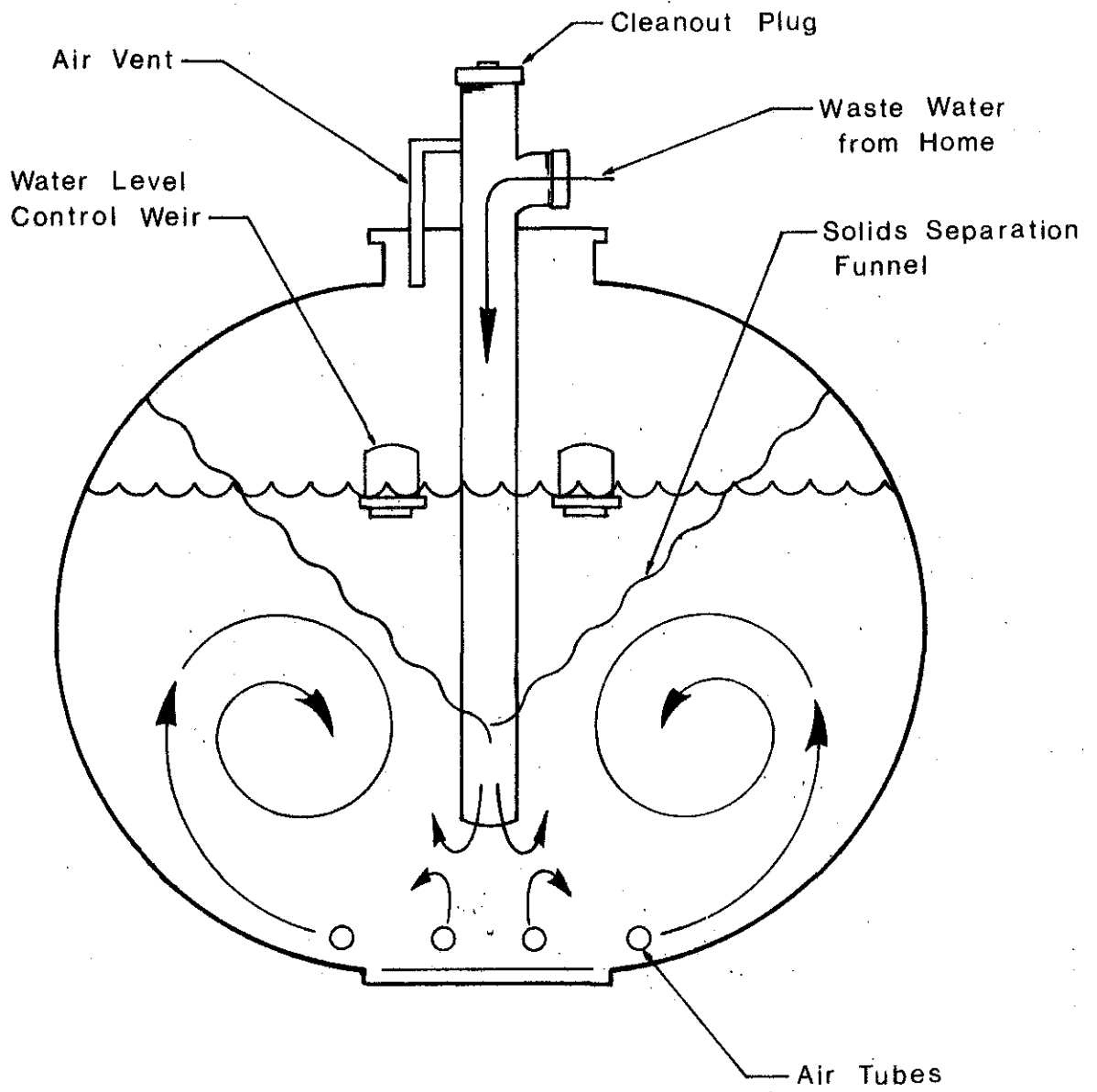
William C. Johnson
APR. 21, 1972

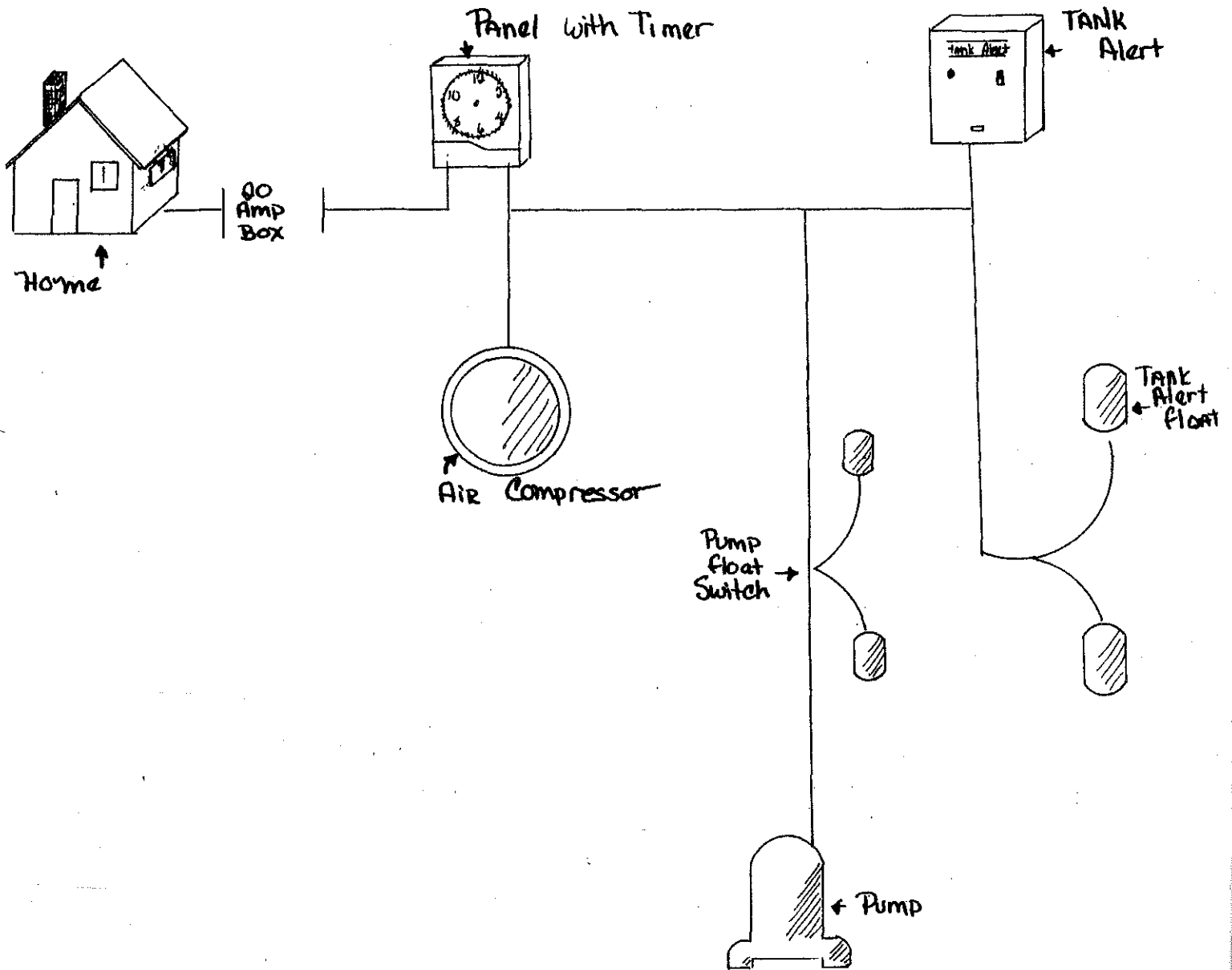
CLIENT: DUDLEY - ERBES, INC.	HIGH WATER TABLE FLOTATION COMPUTATIONS	DATE: 21 APR. 72	JOB NO. 710602
ITEM: BOYD FIBERGLASS SEPTIC TANK	ENGINEER: W.M.C. JOHNSON 721 PINE ST. RBD BLVD., CALIF.		SHEET: 1 ONLY





Aeration stirs the system and provides oxygen for the bacteria





- Wiring Diagram -

Rid-Waste Environmental Systems, Inc.



4005 Auburn - Folsom Road

Bus. (916) 652-7200 • Res. (916) 652-6383

Loomis, California 95650

RID WASTE ENVIRONMENTAL SYSTEMS, INC. MAINTENANCE SERVICE AGREEMENT

BETWEEN _____ (Servicer)

AND _____ (Owner)

COVERING A _____ (RID WASTE ENVIRONMENTAL TREATMENT PLANT)

LOCATED AT _____

For a period of years, from the date of this agreement _____ agrees to perform maintenance and service and to perform such testing and inspection as required to ascertain that the plant is operating as designed.

If it should be necessary to replace any parts of the equipment the Servicer shall make such replacements of the parts and materials required. There will be no charge for labor, mileage and parts under the five-year warranty.

Service calls resulting from the following reasons are not covered by this agreement and will be billed at the regular hourly current rate:

- (a) Power or fuse failure.
- (b) Flooding, freezing, tank settling, freezing of the effluent line.
- (c) Discharge of any material, liquid or solid into the unit which could not be considered normal bio-degradable household effluent waste.
- (d) Crushing of unit or piping due to overload on the ground above or area thereof.
- (e) Clogged inlet or effluent line.

_____ will make _____ service checks annually which include calls for emergency repairs.

_____ is relieved of any further responsibilities if at any time during the term of this agreement you permit any other persons or employees of any other company to render any service or make any adjustments or changes to the equipment, except when instructed by us. We will not be responsible for any direct or indirect damages arising from failure of system and or equipment, but undertake under the terms outlined in this agreement to do such adjusting as may from time to time be necessary.

The servicer will not be responsible for damages resulting from fire, flood and accident and delays unavoidable or beyond our control.

DEFAULT: If the customer does not pay any invoices due from services rendered within 30 (thirty) days of billing date, _____ may (a) refuse to continue service or (b) furnish service only on a C.O.D. basis. The customer agrees to pay _____ costs and expences of collection plus interest, including the maximum attorney's fee permitted by law.

Owner

By: _____

Mailing address

RID-WASTE ALARM SYSTEM

The home owner does not service the Rid-Waste system. All servicing, adjustments or repairs must be done by the factory trained people. Aside from insuring that no non-biodegradable materials enter the system, you need to know only this: Each Rid-Waste Environmental system is equipped with an alarm system. If the buzzer goes on PLEASE DO NOT PANIC!!! PRESS THE HORN BUTTON TO OFF so it quits buzzing and Call RID-WASTE!!! Again, please don't get excited. The Rid-Waste tank is specifically designed to accomodate your waste and waste water requirements for at least two days without inconvenience to the homeowner.

OWNER PROTECTION PLAN

TWO YEAR LIMITED WARRANTY

Rid-Waste offers a 2 year limited warranty and 20 year exchange program. The complete warranty is recieved upon the sale.

FREE 2 YEAR INSPECTION/SERVICE POLICY

For the first two years after installation your Rid-Waste distributor will regularly inspect your Rid-Waste unit and provide any service that should be required, without service charge. The frequency of the these inspections will be according to state and local codes.

CONTINUING INSPECTION/SERVICE POLICY

After the first two years you can renew this inspection/service policy on a five year or longer agreement, again in accordance with local codes, for a nominal charge.

YOUR RID-WASTE UNIT WILL HANDLE:

All waste water from your home and with a few exceptions, anything normally disposed of by the home plumbing system, can be handled by your Rid-Waste unit.

We do recommend the use of biodegradable detergents where ever possible to insure plant efficiency. For proper plant operation, keep the following items out of your unit.

UNDISPOSABLES

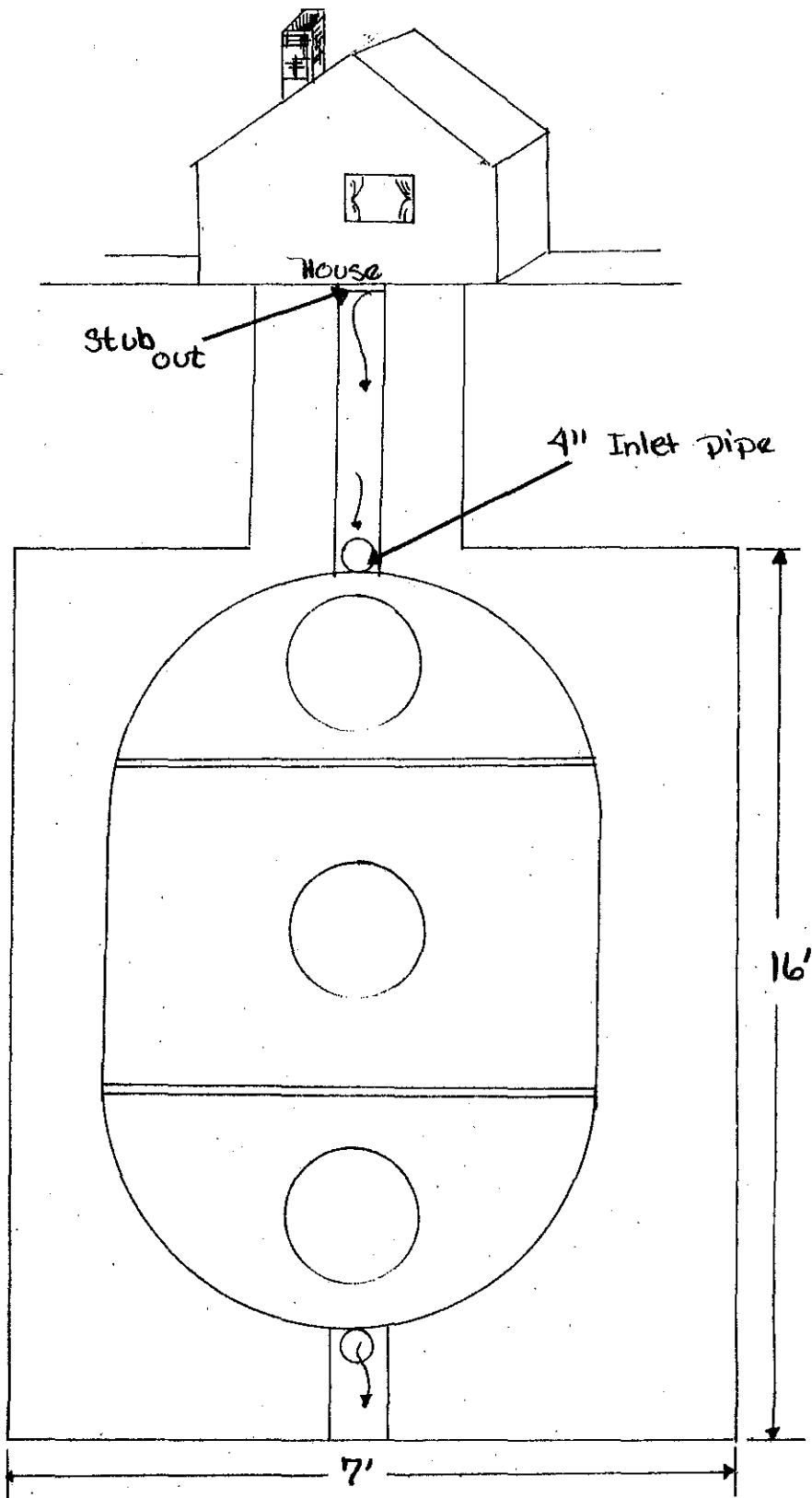
- 1) Plastic products-Rubber products-Towells and cloth objects-Sanitary napkins-Mop strings.
- 2) Grease-Pour grease into a container and throw it away when solidified. Do not pour down sink.
- 3) Lint-Lint from dryers should be disposed of in your trash. Not down the sink.
- 4) Rags and scouring pads-Rags and scouring pads should be disposed of in trash. Not down the drain.
- 5) Disposable Diapers-All diapers can be rinsed out in your toilet, however do not flush regular or disposable diapers down the toilet.

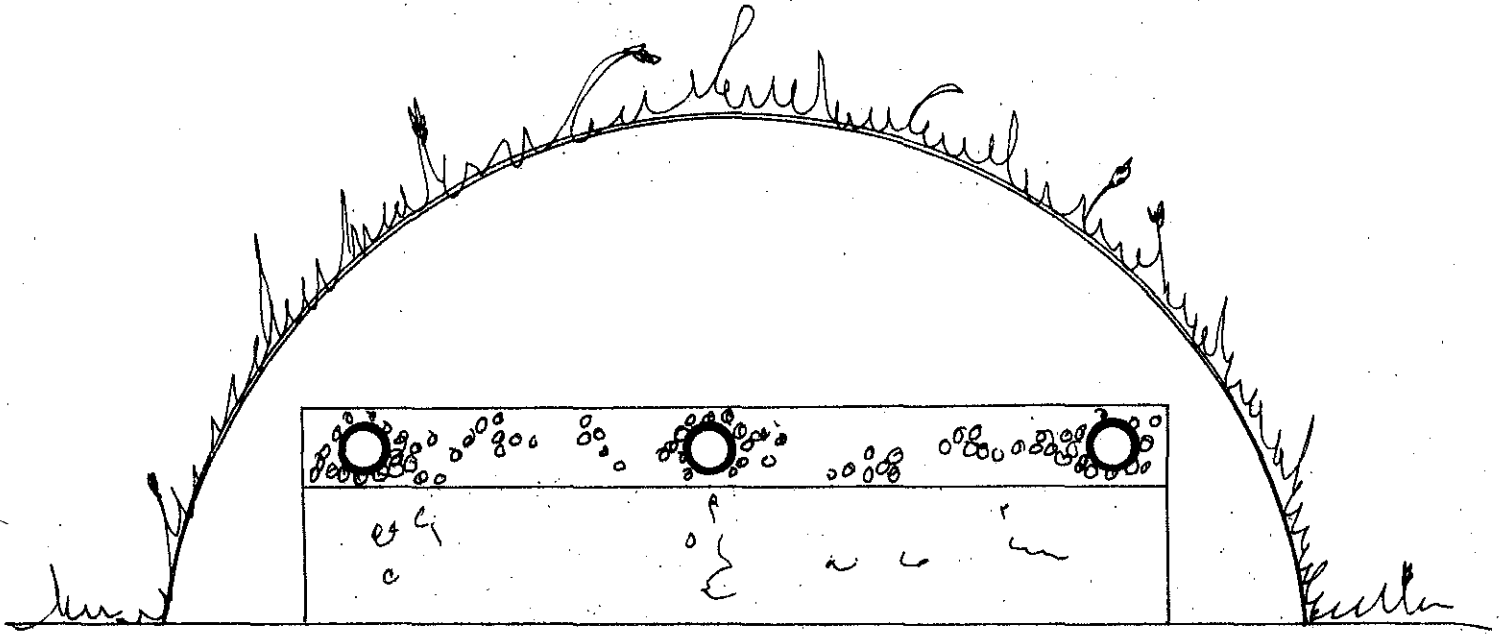
TO THE HOME OWNER

- = End septic pollution & odors
- = Raise health standards
- = No hassle maintenance

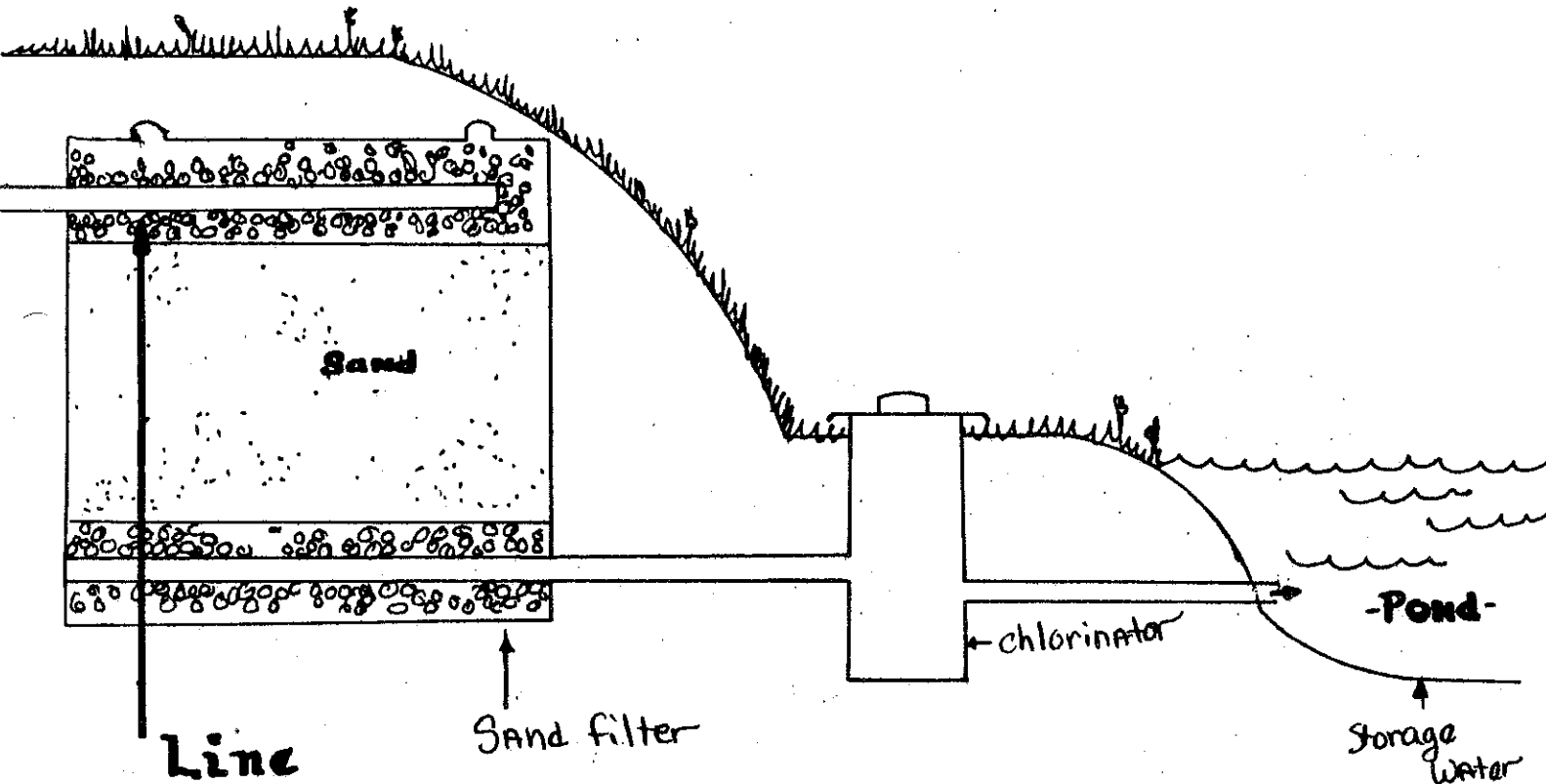
Rid-Waste over Septic

Operating Characteristics		Rid-Waste	Septic Tank
ODOR		NO ODOR	EXTREMELY BAD ODOR
PUMPING		NOT NEEDED IN 9 YEARS	USUALLY 6-24 MONTHS
GARBAGE DISPOSAL		NO PROBLEM	PROBLEMS
DISHWASHER		NO PROBLEM	NEGATIVE EFFECT
CLOTHES WASHER		NO PROBLEM	NEGATIVE EFFECT
STRESS LOADS		NO PROBLEM	CAUSES PROBLEMS
EFFLUENT QUALITY		Rid-Waste	Septic Tank
	Federal Standards		
BoD (Reduction)	85%	Usually 90%	Usually 10%
Suspended Solids	85%	Usually 95%	Usually 40%
PH	6-9	Usually 7%	Usually 7%

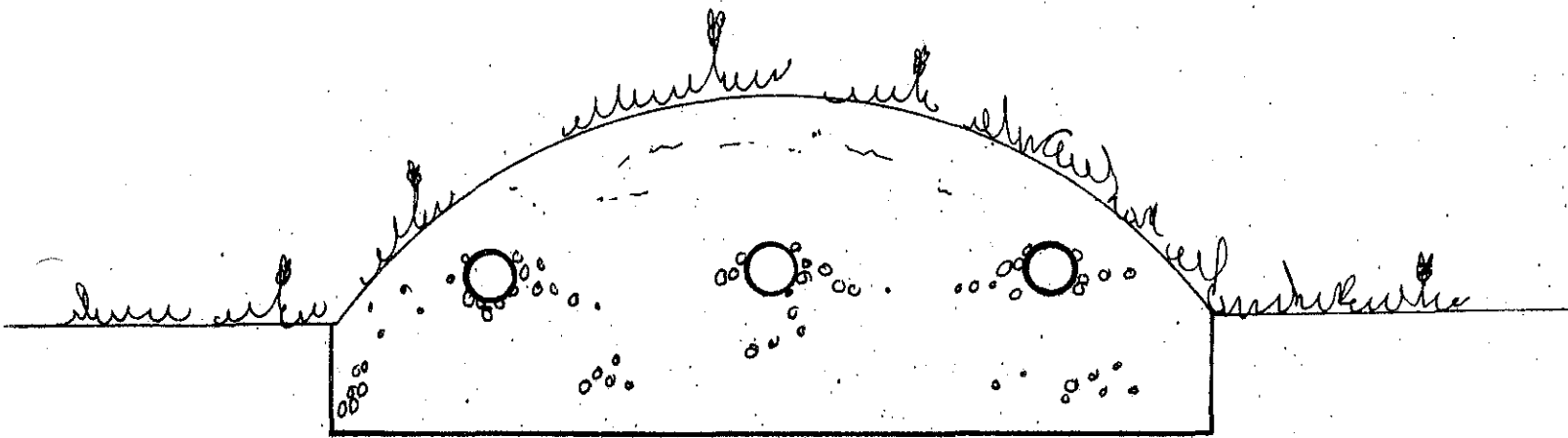




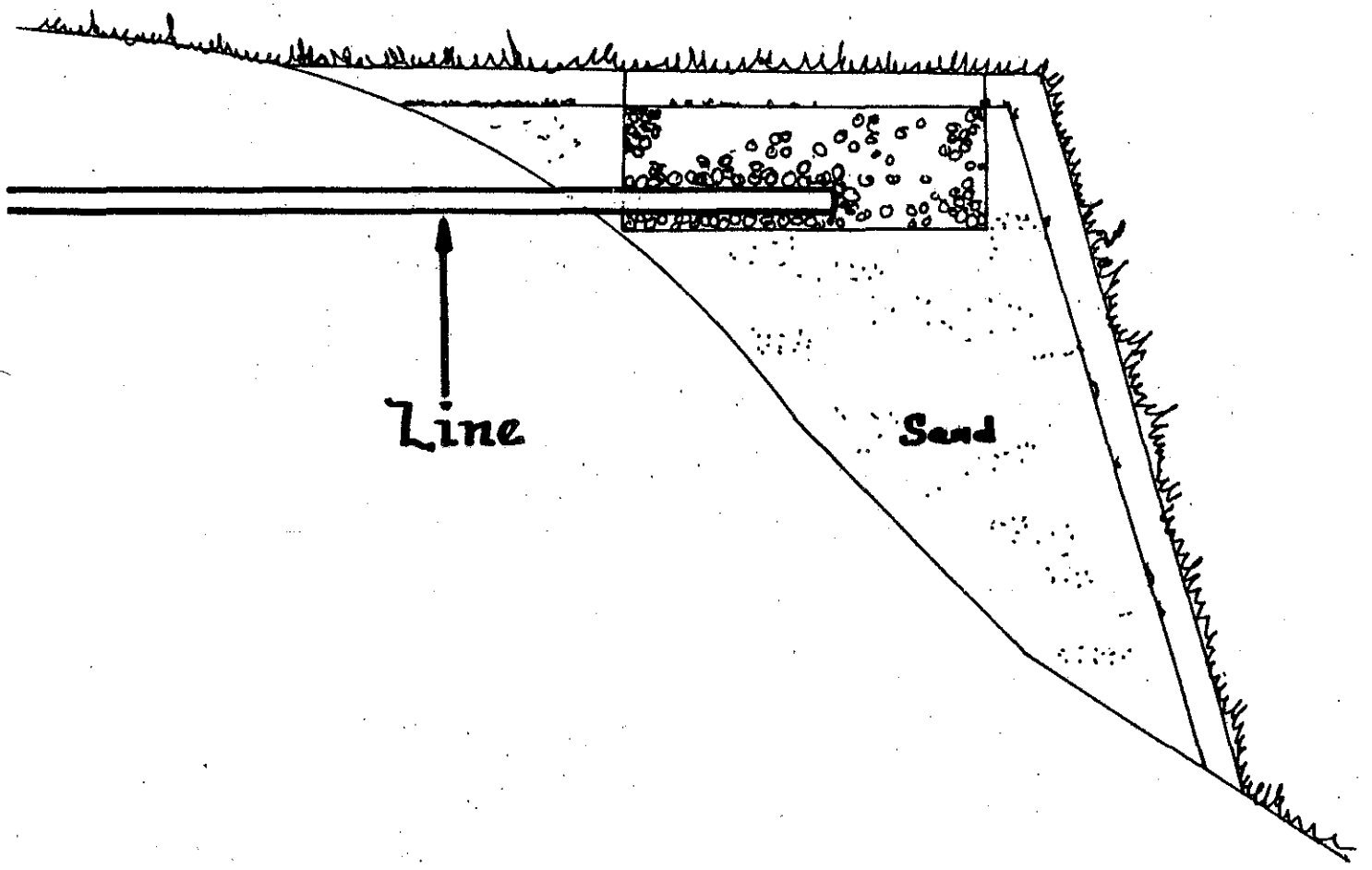
-Elevated mound-



- Sand Filter -



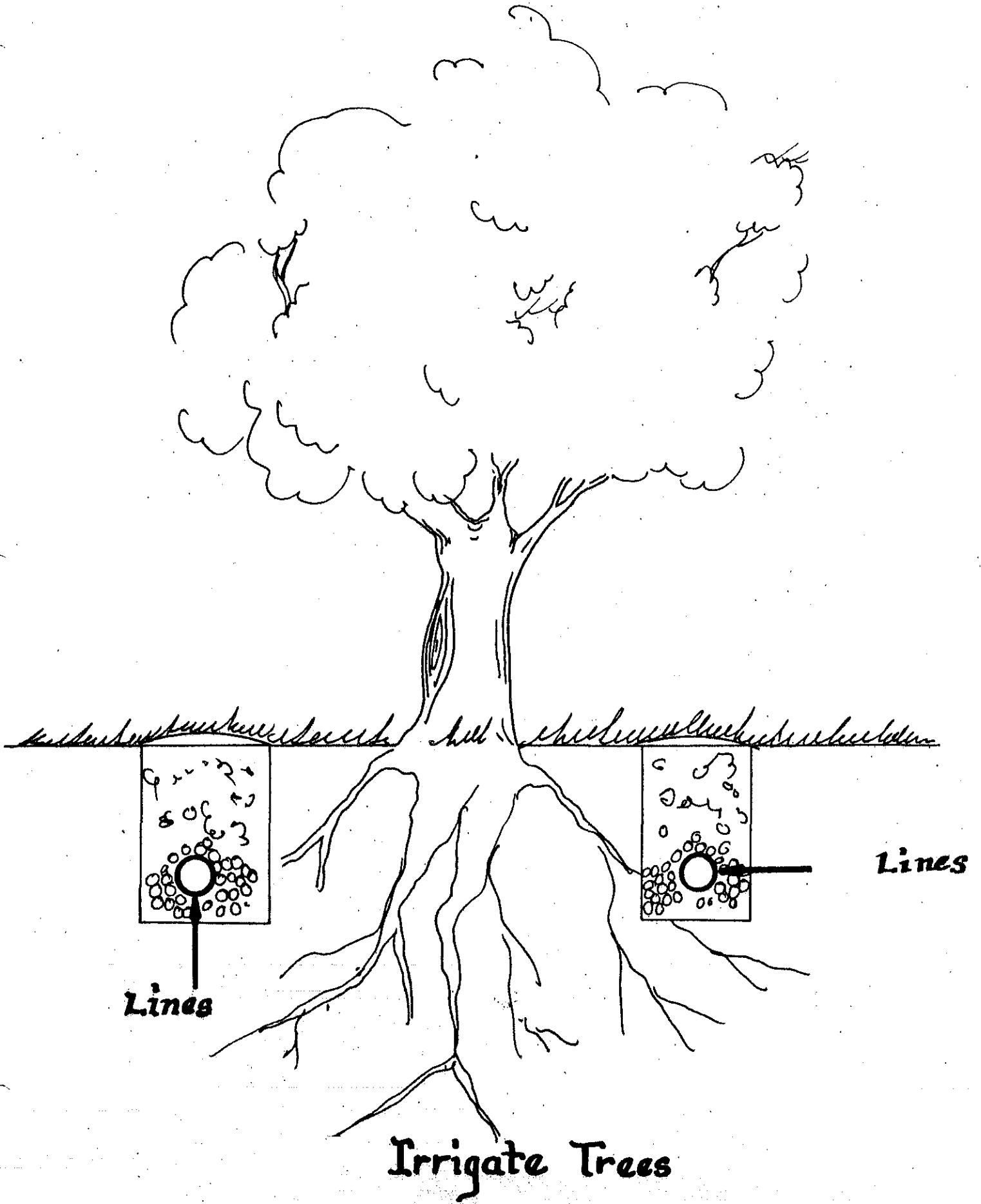
Evapo-Transpiration
Bed.

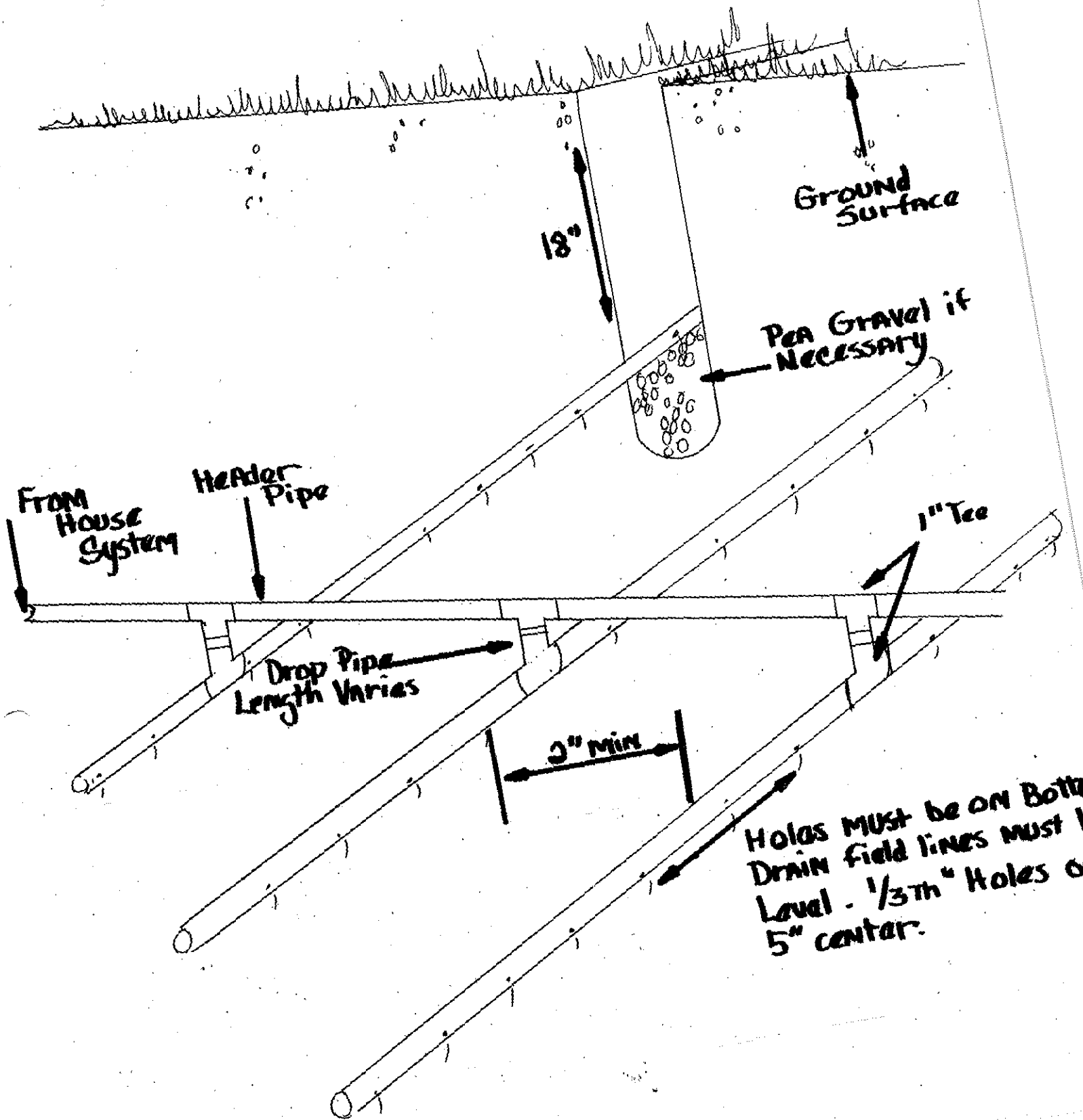


Line

Sand

- Aerovap -





Ground Surface

18"

PER GRAVEL if NECESSARY

From House System

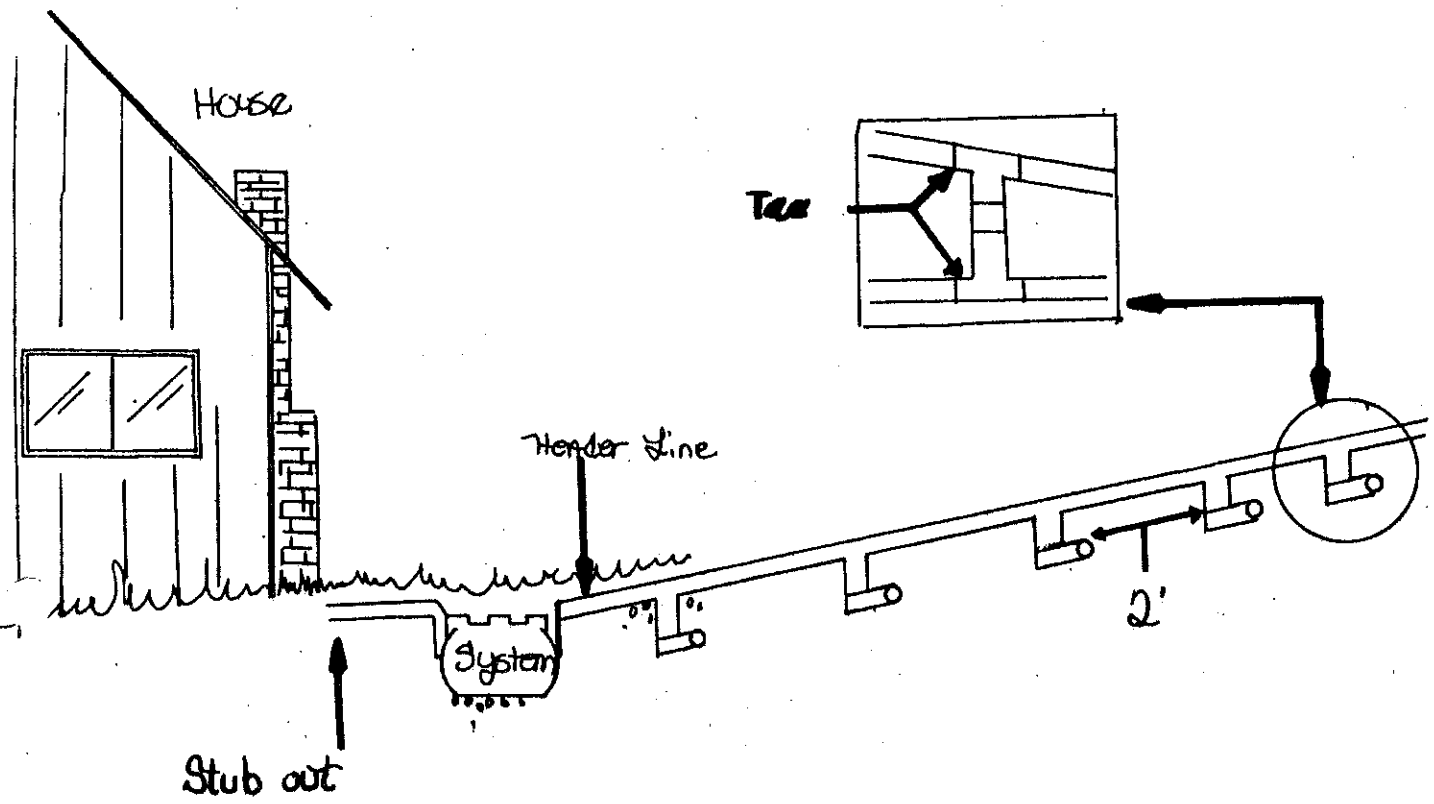
Header Pipe

Drop Pipe Length Varies

1" Tee

3" MIN

Holes MUST be ON BOTH
Drain Field Lines MUST
Level - 1/32" Holes @
5" center.



Stair Step Design

Rid-Waste Environmental Systems, Inc.



4005 Auburn - Folsom Road

Bus. (916) 652-7200 • Res. (916) 652-6383

Loomis, California 95650

RID-WASTE AEROBIC UNIT KWH USAGE BREAKDOWN

DAYTON 1/3 H.P. MOTOR

- 1) Multiply 6.8 amps X 120 volts equals 816 watts divided by 1000 equals .81 Kilowatts.
- 2) Multiply .81 Kilowatts X Total hours of operation equals the total Kilowatt hours.
- 3) For cost breakdowns Multiply the total KWH figure X an estimated .03¢.

6 hours P/D = 4.8 KWH or Approx. .14¢ P/D = Approx. \$ 51.10 per year
12 hours P/D = 9.7 KWH or Approx. .29¢ P/D = Approx. \$105.85 per year
18 hours P/D = 14.5 KWH or Approx. .43¢ P/D = Approx. \$156.95 per year
24 hours P/D = 19.4 KWH or Approx. .58¢ P/D = Approx. \$211.70 per year

LITTLE GIANT 1/4 H.P. PUMP

Assume 1,500 gallon/tank/day Max.

EQUATION

5 person tank

8 amps X 120 Volts
= 960 watts divided by
1,000 = .96 Kilowatts

Multiplied by 30 minutes
per day usage = .28 KWH
X Estimated .03¢ per KWH
= approx. .8 per day

\$2.92 per year

15 person tank

8 amps X 120 Volts
= 960 watts divided by
1,000 = .96 Kilowatts

X 2 hours
p/d usage = 1.9 KWH
X Estimated .03¢ per KWH
= approx. .05¢ per day

\$18.25 per year

TOTAL TANK KWH USAGE & COST FOR USAGE PER YEAR

Minimum = \$54.02

Maximum = \$229.95

AERATION TIME CLOCK SCHEDULE

The amount of air supplied to the Rid-Waste Environmental Waste Treatment system will vary according to the amount of organic raw wastewater entering it. This schedule will tell you at what interval either 15, 30, or 45 minutes aeration time is needed to completely digest the household wastes. The schedule is based on the accepted BOD pounds per day loading criteria of 0.17 lbs. BOD/capita/day and design criteria of 2,100 cubic feet of compressed air to treat one pound of BOD.

FOR EXAMPLE: A four member family generates (4 X 0.17) = 0.68 lbs. BOD/day and needs (2,100cu. ft. air X 0.68 lbs. BOD/day)= 1428 cu. ft. air/day or (1428/1440 minutes/day)= 0.99 or 1.00 cu. ft./minute or abbreviated 1.00 CFM. In this example 1.00 CFM compressor is needed to treat .68 lbs. BOD/day with continuous operation. Rid-Waste uses a 4.2 CFM compressor, so 1 CFM times 24 hours/day divided by 4.2 CFM gives you 5.72 hours needed for the compressor to operate per day to treat 0.68 lbs. BOD daily load. To space this 5.72 hours around the clock multiply by 60 minutes/hr to get 343 minutes/day, then divide by 24 hours to give 14.3 minutes per hour. Since the time clock is in 15 minute intervals we take the interval setting giving maximum aeration, in this case 15 minutes per hour.

(1) HOUSEHOLD POPULATION	(2) POUNDS OF BOD/DAY	(3) AIR COMPRESSOR CFM NEEDED TO TREAT LBS. BOD/DAY <small>IN COLUMN (2)</small>	(4) HOURS OF COMPRESSOR OPERATION NEEDED/DAY	(5) column # AERATION TIME CLOCK SCHEDULE NEEDED TO TREAT BOD LOAD (2) IN MINUTES/HOUR*			
				15	30	45	60
1	0.17	0.25	1.42	X			
2	0.34	0.50	2.85	X			
3	0.51	0.75	4.28	X			
4	0.68	1.00	5.72	X			
5	0.85	1.25	7.14	X			
6	1.02	1.50	8.57		X		
7	1.19	1.75	10.00		X		
8	1.36	2.00	11.42		X		
9	1.53	2.25	12.85		X		
10	1.70	2.50	14.28		X		
11	1.87	2.75	15.71			X	
12	2.04	3.00	17.14			X	
13	2.21	3.25	18.57			X	
14	2.38	3.50	20.00			X	
15	2.55	3.75	21.42			X	
16**	2.72	4.00	22.85				X
17	2.85	4.25	24.00				X

* Based on using a 4.2 CFM, 10 psig compressor

** At this point consider a larger compressor or use two tanks

August 28, 1981

Public Forum

Item F

I missed my bus and was therefore late for the Public Forum. I have sat on the Air Quality Advisory Committee for 3 years. One of the things I have noticed is that the state air quality standards seem to be ignored. Only the federal standards are addressed.

When I sat on the City of Portland's Growth Management Steering Committee, the group chose to ignore the state ozone standard.

Metro, which has the responsibility for transportation control strategies, has always said it has no responsibility to attempt to meet state standards.

The DEQ, in its 1980 Air Quality Report which shows violation days for different pollutants in different cities, used federal standards instead of state standards.

My question to you is this: What does the state standard mean? How should the DEQ operate differently than if there were no state standards?

Jeanne Roy
Air Quality Advisory Committee

Janice Roy
Chairman, Open Burning Subcommittee
Air Quality Advisory Committee
August 28, 1981

Agenda Item (K)

I didn't hear until two days ago that D&E had decided to take the burning ban out of the rules. Therefore I don't have any prepared testimony. I had intended to make the following comments during your public forum.

I have heard that the D&E is taking the burning ban out of the rules to comply with legislative intent. If the Legislature had intended that D&E take the ban out of the rules, it would have passed the original SB 327. All would have needed to do would be to change the wording from domestic waste to yard debris. I sat through the hearings and talked to members of the House Committee and to Mary Alice Ford who carried the bill in the House. I heard some anti-D&E sentiment - that a backyard burning ban would lead to further burning restrictions - and some rural vs. urban sentiment. But I did not hear sentiment that D&E ought to abandon its attempt to prohibit backyard burning in the urban area.

What I did hear at the Legislature was that they wanted to make sure the ban was needed to meet standards and to make sure that alternative disposal systems were more apparent to the public. I think that you have the responsibility to make the determinations listed by the Legislature and to leave the ban hanging in the rules until you have made these determinations.

I am afraid that what will happen if you take the ban out of the rules and imply that it will not be used as a control strategy for particulates is that it will be used as an offset. If that happens, we won't get an improvement in air quality. We will just get a tradeoff - tons of particulate from industry or garbage burning instead of tons of particulate from backyard burning.

BLUEPRINTS IN ARCHIVE ENVELOPE

James F. Nims
Civil Engineer

AD
D
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DO NOT REMOVE

June 4, 1981

Mr. William Young, Director
Department of Environmental Quality
822 Southwest 5th Avenue
Portland, Oregon 97207

Re: WQ - SSS -Variance
Denial, T.L. 3600;
Sec. 1 DD, T. 4S.,
R. 11W., W. N.
Tillamook County, Or.

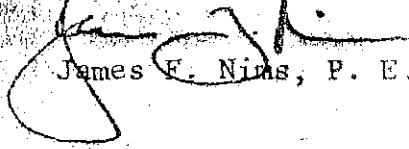
Dear Mr. Young,

We are submitting a new drawing for an alternate sewage disposal system for your consideration for the subject property. Please note, we have followed Mr. John Smits recommendations in our design.

As this is our first system submitted under the improved rules, Mr. Graham felt it would be appropriate to allow you to review the proposed plan to assist in giving us direction to make this proposal successful.

We hope this plan meets with your approval.

Sincerely Yours,



James F. Nims, P. E.

Attachments - letter of 11/18/80

04 N. E. 146th Avenue
Bellevue, Washington 98004

892-9125



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Port of Portland

Box 3529 Portland, Oregon 97208
503/231-5000
TWX: 910-464-6151

July 14, 1981

Commissioner Joe B. Richards
P.O. Box 10747
Eugene, OR 97440

DEPARTMENT OF ENVIRONMENTAL QUALITY NEW SOURCE REVIEW RULE

Dear Joe:

The purpose of this letter is to express the Port of Portland's support of the New Source Review Rule. For the past two years, the Port has met with and provided comments to the Department of Environmental Quality (DEQ) staff as the rule was prepared. During this period, the Port has consistently expressed concern over the major source cutoff points for new sources for total suspended particulates (TSP) and volatile organic compounds (VOC) which are significantly more stringent than those of the Environmental Protection Agency. We still have that concern. Again, we recommend that the cutoff points for TSP and VOC be set at 50 tons per year for each new source as compared to 25 tons for TSP and 40 tons for VOC as proposed in your new source rule.

While we do have these reservations with the proposed rule, we are also concerned that additional delay may result in administration of the program by EPA rather than DEQ. Because it is important that local control of the program be maintained, we recommend that you adopt the New Source Rule at your July 17 meeting.

We look forward to working with the DEQ staff as the rule is administered.

Sincerely,

Lloyd Anderson
Executive Director

cc: Bill Young
Lloyd Kostow

03G108

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

JUL 16 1981

OFFICE OF THE DIRECTOR



Port of Portland

Box 3529 Portland, Oregon 97208
503/231-5000
TWX: 910-464-6151

July 14, 1981

Commissioner Mary Bishop
01520 S.W. Mary Failing Drive
Portland, OR 97219

DEPARTMENT OF ENVIRONMENTAL QUALITY NEW SOURCE REVIEW RULE

Dear Mary:

The purpose of this letter is to express the Port of Portland's support of the New Source Review Rule. For the past two years, the Port has met with and provided comments to the Department of Environmental Quality (DEQ) staff as the rule was prepared. During this period, the Port has consistently expressed concern over the major source cutoff points for new sources for total suspended particulates (TSP) and volatile organic compounds (VOC) which are significantly more stringent than those of the Environmental Protection Agency. We still have that concern. Again, we recommend that the cutoff points for TSP and VOC be set at 50 tons per year for each new source as compared to 25 tons for TSP and 40 tons for VOC as proposed in your new source rule.

While we do have these reservations with the proposed rule, we are also concerned that additional delay may result in administration of the program by EPA rather than DEQ. Because it is important that local control of the program be maintained, we recommend that you adopt the New Source Rule at your July 17 meeting.

We look forward to working with the DEQ staff as the rule is administered.

Sincerely,

Lloyd Anderson
Executive Director

cc: Bill Young
Lloyd Kostow

03G108



Port of Portland

Box 3529 Portland, Oregon 97208
503/231-5000
TWX: 910-464-6151

July 14, 1981

Commissioner Ron Somers
106 E. 4th Street
The Dalles, OR 90758

DEPARTMENT OF ENVIRONMENTAL QUALITY NEW SOURCE REVIEW RULE

Dear Ron:

The purpose of this letter is to express the Port of Portland's support of the New Source Review Rule. For the past two years, the Port has met with and provided comments to the Department of Environmental Quality (DEQ) staff as the rule was prepared. During this period, the Port has consistently expressed concern over the major source cutoff points for new sources for total suspended particulates (TSP) and volatile organic compounds (VOC) which are significantly more stringent than those of the Environmental Protection Agency. We still have that concern. Again, we recommend that the cutoff points for TSP and VOC be set at 50 tons per year for each new source as compared to 25 tons for TSP and 40 tons for VOC as proposed in your new source rule.

While we do have these reservations with the proposed rule, we are also concerned that additional delay may result in administration of the program by EPA rather than DEQ. Because it is important that local control of the program be maintained, we recommend that you adopt the New Source Rule at your July 17 meeting.

We look forward to working with the DEQ staff as the rule is administered.

Sincerely,

Lloyd Anderson
Executive Director

cc: Bill Young
Lloyd Kostow

03G108



Port of Portland

Box 3529 Portland, Oregon 97208
503/231-5000
TWX: 910-464-6151

July 14, 1981

Commissioner Fred Burgess
Deans Office of Engineering
Oregon State University
Corvallis, OR 97331

DEPARTMENT OF ENVIRONMENTAL QUALITY NEW SOURCE REVIEW RULE

Dear Fred:

The purpose of this letter is to express the Port of Portland's support of the New Source Review Rule. For the past two years, the Port has met with and provided comments to the Department of Environmental Quality (DEQ) staff as the rule was prepared. During this period, the Port has consistently expressed concern over the major source cutoff points for new sources for total suspended particulates (TSP) and volatile organic compounds (VOC) which are significantly more stringent than those of the Environmental Protection Agency. We still have that concern. Again, we recommend that the cutoff points for TSP and VOC be set at 50 tons per year for each new source as compared to 25 tons for TSP and 40 tons for VOC as proposed in your new source rule.

While we do have these reservations with the proposed rule, we are also concerned that additional delay may result in administration of the program by EPA rather than DEQ. Because it is important that local control of the program be maintained, we recommend that you adopt the New Source Rule at your July 17 meeting.

We look forward to working with the DEQ staff as the rule is administered.

Sincerely,

Lloyd Anderson
Executive Director

cc: Bill Young
Lloyd Kostow

03G108

EQC
Young
Weatherhead



9 July 1981

MILDRED A. SCHWAB
COMMISSIONER OF
PUBLIC AFFAIRS


1220 S. W. FIFTH AVE
PORTLAND, OR. 97204
248 - 4180

Dear Commissioner Richards:

The City of Portland appreciated the opportunity to discuss the Plant Site Emission Limit and the New Source Review Rule with DEQ staff and the Commission. We are particularly pleased that you are dealing with the question of fuel switching separately from other Plant Site Emission Limit questions since it can have serious impacts on existing firms. Also, your willingness to consider clarifying the sections on plant shutdown and the moratorium conditions in the New Source Review Rule will improve the quality of that rule.

Overall we feel that the State has developed a workable system that will allow growth and protect the state's air quality. We encourage you to adopt these rules at your July 17 meeting.

Sincerely,


Mildred Schwab,
Commissioner of Public Affairs

MS:CK:db

cc: Environmental Quality Commission
Bill Young
Lloyd Kostow

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

R E C E I V E D

JUL 15 1981

OFFICE OF THE DIRECTOR



Portland General Electric Company
Legal Department

*Young
FQC
Underwood
Weatherbee*

James W. Durham
Senior Vice President and General Counsel

Senior Assistant General Counsel:
Alvin Alexanderson
Warren Hastings
Richard M. Sandvik

Assistant General Counsel:
James C. L. Baxendale
Roland A. Johnson
Ronald W. Johnson State of Oregon
Steven F. McCarty DEPARTMENT OF ENVIRONMENTAL QUALITY
Dorothy E. Rollock

RECEIVED
JUL 13 1981

July 7, 1981

Mr. Joe Richards, Chairman
Environmental Quality Commission
300 Forum Building, 777 High Street
P. O. Box 10747
Eugene, Oregon 97440

Re: Proposed New Source Review and Plant Site Emission Limits
OFFICE OF THE DIRECTOR

Dear Chairman Richards:

It is my understanding that at the July 1 workshop you asked me to prepare another written statement of PGE's position on Boardman Unit I emissions and the New Source Review calculation of "baseline concentration", which as far as we know is a problem only for PGE.

I will also take the opportunity to briefly restate PGE's position on the impact of the proposed Plant Site Emission Limits on PGE's combustion turbines, as I do not feel the issue was thoroughly discussed at the workshop.

NEW SOURCE REVIEW

PGE has a site certification agreement with the State of Oregon, dated March 24, 1975, which allows the construction of three thermal power plants at the Carty Reservoir site near Boardman, Oregon. One coal-fired plant has been built at the site, which we refer to as Boardman Unit I. As part of the site certificate agreement, PGE consented to air quality controls for the first unit which are much more restrictive than required by either federal or state law. PGE feels that the State is committed to allowing additional coal-fired units at the Carty site, subject, of course, to the requirements of federal air quality law and reasonable state energy facility siting standards.

If PGE elects to install a second Boardman unit, that unit will be subject to the proposed New Source Review rules. At that point, it will become very important whether emissions from the first unit are in or out of the baseline concentration.

Mr. Joe Richards
July 7, 1981
Page 2

A case can be made that Boardman Unit I had commenced construction as of January 6, 1975 and therefore its emissions would be considered in the baseline, if one uses EPA definitions and policies prevailing at the time the site certification agreement was executed by Governor Straub. The pertinent EPA definition of "commenced", found at 39 FR 42515, reads as follows:

"'Commenced' means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a binding agreement or contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification."

The evidence that PGE satisfies the above definition for Boardman Unit I is essentially that on March 15, 1974 PGE entered into a letter of intent with Westinghouse Electric Corp. for fabrication of the turbine-generator and on October 1, 1974 entered into a 24-year coal supply contract with Amax Inc.

Regrettably, the EPA definition of "commenced construction" was amended some time after the Boardman site certificate was executed to require that an owner or operator of a source have in hand "all necessary preconstruction approvals". The new EPA definition, which has been incorporated by Staff into the proposed New Source Review rules, could be interpreted in such a way that Boardman Unit I emissions are not in the baseline.

These developments are most distressing to PGE, and should be to the State as well, since from a public policy standpoint, Boardman Unit I emissions clearly should be deemed in the baseline:

1. The Boardman area is an excellent site for coal-fired power plants, perhaps one of the few in the State. Insofar as energy development is needed in Oregon, it should be facilitated in this area. The Boardman area has good access to existing transmission lines; it is accessible to fuel supplies; it has adequate water for cooling; it has good air dispersion; it is far from population centers and scenic resources; and its citizens favor energy development. If Boardman I emissions are not in the baseline, the most efficient utilization of the plant site for additional generating units may be precluded.

Mr. Joe Richards
July 7, 1981
Page 3

2. If Boardman I emissions are not in the baseline, but are in the PSD increment, PGE's ratepayers may be required eventually to spend over \$60 million on additional pollution control equipment for Unit I. PGE believes that such an extreme result should not occur simply because of an arbitrary EPA date, which has nothing to do with Oregon's interests, but should only occur if justified on the basis of measured, site specific impacts on Oregon residents. By requiring SO₂ scrubbers on new units, even those using low-sulfur western coal, EPA has demonstrated its insensitivity to local conditions.
3. For regulatory purposes, the State has been treating Boardman Unit I emissions as part of the given air shed in the region since 1974. It would seem unfair for the State at this late date to not consider Boardman I emissions in the baseline.

PGE is in no position to convince EPA to revise its New Source Review definitions or even to give PGE a favorable clarification of such definitions. Since the Commission is proposing to take over implementation of the Clean Air Act in Oregon, the Commission is uniquely positioned to take the initiative in this matter.

The Commission can cure the problem in either of two ways. The simplest is to insert an interpretive statement following OAR 340-20-225(2)(b), as follows: "Emissions from sources not subject to New Source Review under EPA regulations in effect on March 24, 1975 shall be included in the baseline concentration." Under this scheme, focus would be directed to a decision, already made by EPA, that Boardman Unit I is not subject to New Source Review.

Alternatively, the Commission could put a notation following OAR 340-20-225(5)(b), as follows: "Emissions from sources on which construction commenced before January 6, 1975, as defined by EPA regulations in effect on March 24, 1975, shall be included in the baseline concentration."

The State need not assume that the revisions suggested by PGE will trigger an adverse comment by EPA. In any event, it seems to me that the Commission will be in a better position to prevail in some future language dispute with EPA if the Commission's language has been adopted as a final rule.

I hope this material is of value to you and to Staff in evaluating appropriate language to be used in the New Source

Mr. Joe Richards
July 7, 1981
Page 4

Review rules. A decision of this importance should be made by the State and local regulatory or legislative processes on the basis of what "ought to be" and not by blind application of a vacillating federal policy insensitive to local needs.

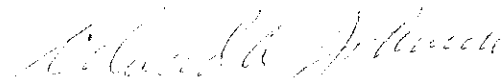
PLANT SITE EMISSION LIMITS

PGE urges the Commission to recognize that PGE's combustion turbines, unlike other sources, have no "normal" operation at all. By way of illustration, PGE's Beaver units operated a total of 2104.8 hours in 1977, 790 hours in 1978, and 9167.3 hours in 1979. Which year is typical? In 1979, emissions appear high and yet future conditions may be such that the 1979 emissions will be on the low side.

The Staff recognizes that PGE, unlike most source owners, does not want to operate its facilities and yet must be allowed to operate them if needed to continue to serve its customers. The Department is in the process of issuing a 5-year Air Contaminant Discharge Permit for the Beaver Plant which contains no mass emission limits. Under the proposed rules, approved emissions in a renewal permit might be only 10% of currently-allowed emissions. Why establish emission limits based on 1977 or 1978 operating history and then require PGE to come in and petition for a permit change?

In our opinion the rule should simply provide that the actual emissions for combustion turbines are reasonable worst case projections. I suggest a new subsection (c) be added to OAR 340-20-305(1), as follows: "For any combustion turbine electric generating facility, actual emissions shall equal reasonably projected worst case operation."

Very truly yours,



Roland A. Johnson

0077/I/dp

Young
EQC
AQ

James L. Johnson, Jr.
Oregon City Commissioner
1110 16th St.
Oregon City, Oregon 97045
(503) 655-9878

Mr. William H. Young
Director, DEQ
P.O. Box 1760
Portland, Oregon

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUL 9 1981

Dear Mr. Young,

OFFICE OF THE DIRECTOR

After the June 30 work session of the Environmental Quality Commission I talked very briefly with Mr. Richards concerning the offsets exemptions for resource recovery facilities as proposed in the New Source Review Rules. He recommended that I write to you and request that this letter be forwarded to the Commission prior to its deliberations on the proposal. I am requesting that you please forward this letter to the Commission members.

The purpose of this letter is to clarify the present situation of the proposed garbage-burning plant to be located in Oregon City and to request that such facilities not be given exemptions from offset requirements; a request which was presented at the public hearing on these rules before the Commission.

On June 25, 1981 the Oregon City Commission approved conditional use permits to allow Metro construction of a RRF in Oregon City. The permit was issued with the condition that "METRO must obtain to DEQ satisfaction, offsets to mitigate additional pollution to the airshed." The City Commission has received testimony that Publishers Paper, who will receive steam from the RRF, has offsets available, but not "obtainable" in that they wish to hold on to them. Contract negotiations for the construction of the \$141 million facility are underway between METRO and the low bidder. There has been no financial commitment for the \$141 million cost of the facility, contrary to Mr. Tom Donaca's statement at the work session.

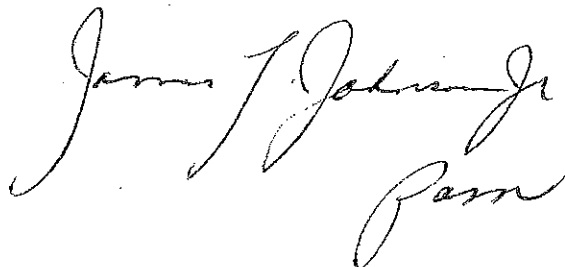
As a member of Oregonians for Clean Air testified at the public hearing, exemptions from offset requirements should not be given to resource recovery facilities. Partially solving solid waste problems by adding to air pollution problems in a nonattainment area is not an adequate solution to any problem. Even EPA's interpretive ruling on offsets required that as offsets become available a RRF would have to apply them. While the interpretive ruling is no longer in effect in Oregon due to the conditional approval of the State Implementation Plan, it certainly should be the minimally accepted terms for RRF's.

The question is--will you allow a major source such as this plant the possibilities for exemptions from the offset requirements of other major new sources? Will you allow the added pollution to our airshed? Our City Commission's hopes are clear by our condition on the permit.

Therefore I and members of Oregonians for Clean Air ask that you delete the exemptions possibilities for RRF's from your rule. Certainly the guidance offered by the EPA ruling should be the minimally acceptable terms for offsets exemptions if you do not see fit to delete the exemptions entirely.

Thank you for this opportunity to clarify the existing situation in Oregon City and to reiterate the OCA's position on exemptions.

James L. Johnson, Jr.

A handwritten signature in cursive script that reads "James L. Johnson, Jr." with a stylized flourish underneath.

JLJ:pam



ASSOCIATED OREGON INDUSTRIES

MAILING ADDRESS: P.O. BOX 12519 / SALEM, OREGON 97309 / 503 588-0050
LOCATION: 1149 COURT ST. N.E. PORTLAND AREA 503 227-5638

Ivan Congleton, president

*Young
Dowds
Underwood*

July 9, 1981

Mr. Joe Richards, Chairman
Environmental Quality Commission
P.O. Box 10747
Eugene, Oregon 97401

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
R E C E I V E D
JUL 13 1981

Re: Proposed Rules for Plant Site Emission Limits and New
Source Review

OFFICE OF THE DIRECTOR

Dear Mr. Richards:

As you are aware, both from the public testimony at earlier public hearings of the Commission as well as discussion at the workshop, the PSEL rule creates grave concern among our members who hold air quality permits. However, the New Source Review Rule also has some elements that are cause for concern, but due to the preponderance of the discussion on PSEL, these concerns may have been overlooked. We will address suggestions for modification of both rules in the following paragraphs.

The major concerns with the PSEL rule result from the following:

- 1- Potential for loss of presently operated productive capacity; and
- 2- Loss of use of installed, but unused capacity which presently issued permits provide adequate allowance for utilization.

We believe that the issue might well be addressed by recognition that the PSEL rule is essentially a management tool for the DEQ to be able to establish a methodology for determining, with greater accuracy, where and to what degree industrial air emissions are showing increases or decreases. If this is a correct assumption, then why not adopt an additional provision in the PSEL rule that states the intention of the Commission with regard to the two above points, and provide some additional flexibility to the rules to be able to compensate for those problems. Also, the PSEL rule should not then be incorporated in the State Implementation Program (SIP), but as it is not a federally mandated requirement it need not be in the SIP. Such a rule amendment might be as follows:

340-20-300 (Renumber the proposed 340-20-300 to 301.)

The Voice of Oregon's Business and Industry

Mr. Joe Richards
7-10-81 (2)

The Commission recognizes the need to establish a more definitive method for measurement of increases and decreases in air emissions of air quality permit holders as contained in OAR 340-20-301 through 340-20-320. However, by the adoption of these rules the Commission does not intend to (a) limit the use of existing production capacity of any air quality permittee; (b) cause any undue hardship or expense to any permittee due to the utilization of existing unused productive capacity, or (3) create inequity within any class of permittees subject to specific industrial standards which are based on emissions related to production if, the conditions of the permit in effect on the date of adoption of these rules would have allowed the use of the productive capacity. Notwithstanding any other provision of OAR 340-20-301 to 340-20-320 the department is authorized to modify the conditions of these rules to accommodate the provisions of this section on a case-by-case basis, and any permittee unable to resolve any issue involved in this rule may appeal to the Commission for resolution.

Adoption of language as suggested above should provide a means of resolving those instances where strict application of the PSEL rule in the initial establishment of a PSEL in any permit would be an undue hardship on the permittee. We see no reason why the PSEL that could be granted would be violative of proposed OAR 340-20-300 which states the rationale for such a rule. It must be recognized, through, that the PSEL rule and the New Source Review Rule would be separated, rather than integrated as at present.

To implement our proposal we suggest that you consider the following amendments to the PSEL rule:

OAR 340-20-310(1) The second sentence should either be deleted or made applicable only to a PSEL after it has been initially granted. Also, the second paragraph should reflect that application of this paragraph and the rest of the material in (1) is operative only to a PSEL after it has been initially granted.

We request the following modifications to the New Source Review Rule (NSR):

OAR 340-20-225(14) (page 7) The definition of "Major Modification" should have the EPA definition substituted for it. A copy of the EPA Rule, 40CFR 52.21 b (2) (i) is attached.

The proposed definition in the NSR existence of a PSEL rule which limits all sources, on initial determination of a PSEL, to actual 1977/78 baseline levels. The EPA definition is more detailed and specifically exempts alternate fuels, maintenance repair and replacement; increases in hours of operation unless restricted by a permit, and changes in ownership. The DEQ proposed definition without these exemptions would force all net significant emission increases over the 1977/78 baseline to obtain a Presentation of Significant Deterioration (PSD) permit.

Mr. Joe Richards
7-10-81 (3)

OAR 340-20-225(23) (page 11) The definition of "Significant Air Quality Impact" should have the annual TSP set at 1.0 ug/m³, rather than the 0.2 ug/m³ as proposed, which is the EPA rule. An annual setting at this level will force a significantly greater number of sources to monitor the requirements for PSD.

OAR 340-20-255 (page 32) should have the reference to the PSEL rule OAR 340-20-300 to 320 by striking the phrase: "Established pursuant to OAR 340-20-300 to 320". The PSEL definition in the proposed New Source Review Rules refers only to mass emissions specified in a permit which would be consistent with our proposal on the PSEL rule.

We still believe that permanent reductions in operations or shut-downs of operations should be bankable on the same basis as reductions obtained from permanent continuous controls. Our strong belief stems from the fact that Oregon, as a leader in air quality control, has already applied in most instances the highest and best practicable treatment and control to sources. Thus, to find the offsets necessary for new development will be most difficult from source controls alone, but to meet the requirements of OAR 340-20-265(4) may be impossible. We are concerned that to avoid giving up the potential offset to the state outmoded or uneconomic plants may be continued in operation. Therefore we request that OAR 340-20-265 (page 35) be rewritten as follows:

"The owner or operator of a source of air pollution who wishes to reduce emissions by implementing more stringent controls than required by a permit, by permanently reducing operation of a source or eliminating an existing source, or by an applicable regulation may bank such emission reductions. Cities, counties or other local jurisdictions may participate in the emissions bank in the same manner as a private firm. Emission reduction credit banking shall be subject to the following conditions:

"(1) To be eligible for banking, emission reduction credits must be in terms of actual emission decreases resulting from permanent continuous control of existing sources, or by permanent reduction or elimination of an existing source. The baseline for determining emission reduction credits shall be the actual emissions of the source or the Plant Site Emission Limit (established pursuant to OAR 340-20-300 to 320)."

To carry out this thought you would then have to delete all of OAR 340-20-265(4) (page 36) and renumber the following subsections; and in OAR 340-20-265 (8)(a) after "controlled" insert "reduced or eliminated".

It is still our belief that offsets will be difficult to obtain and will also be very expensive. If our assumption is accurate we again request that in OAR 340-20-265(7) (page 37) that the amount that can

Mr. Joe Richards
7-10-81 (4)

be banked be decreased from ten tons to 5 tons. There will be some additional paper work for the DEQ, and if it turns out to be significant we can discuss some type of a fee system to provide its support.

One last comment, OAR 340-20-280 is to be deleted, so in OAR 340-20-265(3) (page 36) you should delete "or those that are reserved for control strategies pursuant to OAR 340-20-280".

We understand the difficulty confronting you in the adoption of this rule and we appreciate the time you have given us to present our views. If there are any questions about this memorandum, I can be reached in Salem at 588-0050, and I will attend the Commission meeting on July 17th.

Sincerely,

Thomas C. Donaca
General Counsel



TCD:sjm
Encl

cc: Mary Bishop
Fred Burgess
Ron Somers
William Young
Jack Weathersbee

§ 52.21 Prevention of significant deterioration of air quality.

(a) *Plan disapproval.* The provisions of this section are applicable to any State implementation plan which has been disapproved with respect to prevention of significant deterioration of air quality in any portion of any State where the existing air quality is better than the national ambient air quality standards. Specific disapprovals are listed where applicable, in subparts B through DDD of this part. The provisions of this section have been incorporated by reference into the applicable implementation plans for various States, as provided in subparts B through DDD of this part. Where this section is so incorporated, the provisions shall also be applicable to all lands owned by the Federal Government and Indian Reservations located in such State. No disapproval with respect to a State's failure to prevent significant deterioration of air quality shall invalidate or otherwise affect the obligations of States, emission sources, or other persons with respect to all portions of plans approved or promulgated under this part.

[52.21(b) revised by 45 FR 52729 August 7, 1980]

(b) *Definitions.* For the purposes of this section:

(1)(i) "Major stationary source"

means:

(a) Any of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any pollutant subject to regulation under the Act: Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants,

carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants, and charcoal production plants;

(b) Notwithstanding the stationary source size specified in paragraph (b)(1)(i) of this section, any stationary source which emits, or has the potential to emit, 250 tons per year or more of any air pollutant subject to regulation under the Act; or

(c) Any physical change that would occur at a stationary source not otherwise qualifying under paragraph (b)(1) as a major stationary source, if the changes would constitute a major stationary source by itself.

(ii) A major stationary source that is major for volatile organic compounds shall be considered major for ozone.

(2)(i) "Major modification" means any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.

(ii) Any net emissions increase that is significant for volatile organic compounds shall be considered significant for ozone.

(iii) A physical change or change in the method of operation shall not include:

(a) Routine maintenance, repair and replacement;

(b) Use of an alternative fuel or raw material by reason of an order under sections 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plant pursuant to the Federal Power Act;

(c) Use of an alternative fuel by reason of an order or rule under section 125 of the Act;

(d) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

(e) Use of an alternative fuel or raw material by a stationary source which:

(1) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975 pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.18 or 40 CFR 51.24; or

(2) The source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.24;

(f) An increase in the hours of operation or in the production rate, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.18 or 40 CFR 51.24.

(g) Any change in ownership at a stationary source.

(3)(i) "Net emissions increase" means the amount by which the sum of the following exceeds zero:

(a) Any increase in actual emissions from a particular physical change or change in method of operation at a stationary source; and

(b) Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable.

(ii) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between:

(a) The date five years before construction on the particular change commences; and

(b) The date that the increase from the particular change occurs.

(iii) An increase or decrease in actual emissions is creditable only if the Administrator has not relied on it in issuing a permit for the source under this section, which permit is in effect when the increase in actual emissions from the particular change occurs.

(iv) An increase or decrease in actual emissions of sulfur dioxide or particulate matter which occurs before the applicable baseline date is creditable only if it is required to be considered in calculating the amount of maximum allowable increases remaining available.

SOUTHERN OREGON TIMBER INDUSTRIES ASSOCIATION

2680 NORTH PACIFIC HIGHWAY • MEDFORD, OREGON 97501 • PHONE (503) 773-5329

July 13, 1981

William Young, Director
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Young:

Enclosed you will find a copy of our letter sent to Mr. Joe Richards, Environmental Quality Commission Chairman. This is for your review and information.

Your consideration will be appreciated.

Very truly yours,

John L. Smith
John L. Smith *by lb*
Secretary-manager

JLS:lb

Enclosure

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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OFFICE OF THE DIRECTOR

SOUTHERN OREGON TIMBER INDUSTRIES ASSOCIATION

2680 NORTH PACIFIC HIGHWAY • MEDFORD, OREGON 97501 • PHONE (503) 773-5329

July 13, 1981

Mr. Joe Richards, Chairman
Environmental Quality Commission
P. O. Box 1760
Portland, OR 97207

Dear Mr. Richards:

John Smith, SOTIA Secretary-manager, attended your EQC work session June 30 and July 1. We have reviewed with him the discussion that took place and wish to make some comments concerning certain elements.

We agree with Tom Donaca's position that PSEL rules, as drafted, are unnecessary. Jack Weathersbee's comments concerning the department's success with negotiated permits lends support to this argument. He noted the department has successfully negotiated a number of permits, and that PSEL regulations were not necessary and would serve to avoid process delays in only a few instances. His comments suggest that the department is pushing for the regulations which will have very limited use. We agree with your observation that PSEL's are not federally mandated.

The new source review rules can stand alone without the PSEL regulations. They currently are written as independent regulations and would require only minor modification if the PSEL regulations were dropped. There is no dependent linkage.

A question was raised concerning difficulties in administration of bubble, offset and banking programs without a PSEL rule. We agree that a well written PSEL rule could facilitate the administration of these programs. Unfortunately, the current draft regulations do not provide for a functional bubble, offset or banking program, and in fact would serve to confound the administration of those programs.

Our recommendation is that the PSEL approach be dropped and the concentration limits or mass emission limits be used in conjunction with a negotiated plant capacity assumption to establish a permitted limit. This is the current practice and is adequately working. This negotiated plant capacity may or may not be actual 1977-78 levels. The key is that it would be negotiated between the department and permit holder. As Weathersbee pointed out, this has already been done for many plants, and would not necessitate rewriting strategy.

Mr. Joe Richards, Chairman
Page 2
July 13, 1981

We are also concerned about the accuracy of the data which would be used in establishing the actual emissions for PSELS. Weathersbee disagreed with Donaca on this point. Weathersbee indicated the department could compute actual levels, plus or minus 10%. Donaca suggested that a confidence level of 15 to 20% is more realistic. It was also pointed out that the "actual" figures would not be actual figures at all, but the product of emission factors multiplied by product output. These two points raise a major question on the validity of these figures.

Donaca raised the point that as the rules are currently written, anyone who feels they are being adversely impacted by use of the 1977-78 period for actual emission determination would have scant grounds to seek relief. His contention was that the Commission has little flexibility under the current draft. We agree. Weathersbee went on at some length about the use of permit levels in lieu of 1977-78 actuals, plus or minus 10% to establish the PSEL. While we feel this is the way to go, we do not read the draft rule to permit it. Weathersbee is on the right track, but he has no grounds to offer this option and it is a hollow premise. This is perhaps why Lynn Newbry, Medco, continues to fight the PSEL rule.

We have developed a scenario which concerns us and which may serve to illustrate our point. Take the rule as drafted, using 1977-78 actual emissions, with the permitted 10% tolerance. Assume we have a plant which produces a product for which the concentration limit is expressed in gr./scf. The allowable concentration limit is 0.05 gr/scf. The production assumption is not germane because it remains constant. During 1977-78 the company had implemented operational improvements which permitted the plant to operate at 0.04 gr/scf actual. The permit allows the 0.05 gr/scf. Under the PSEL approach the actual emissions would be established by multiplying the 0.04 gr./scf by the average production. The problem is that the 0.04 loading is 20% less than the permitted. The 10 percent tolerance would only raise the level to 0.045 gr. Thus, the company has lost an increment from its permit by using the actual limits instead of the permitted limits. If the company had hoped to bank that or use the increment to increase production they are out of luck. It is scenarios such as this that bother us.

We are still dissatisfied with the department's banking proposal. First, we are adamantly opposed to the moratorium proposal. This would work to the disadvantage of industry in the Medford area. It would serve to trigger more stringent measures on industry, penalizing those which have made improvements, because wood stoves have not been controlled.

The proposed departmental control of any increment resulting from

Mr. Joe Richards, Chairman
Page 3
July 13, 1981

a permanent shutdown or curtailment is also unacceptable. We contend the permit must remain with the facility until permit termination and be banked thereafter. This is essential to maintain the property as a saleable commodity. A plant requiring a permit which is not transferable with the property is worth little more than scrap value. The permit is a business asset and necessity. This fact cannot be ignored. Consider the value of a plant in Medford with a permit, and then value it without that permit. The difference between scrap metal and an operating entity is significant.

We also disagree with Weathersbee's premise for controlling permits from shutdowns and curtailments. He contended departmental control would speed up the process of getting jobs back into the community. That is a noble aspiration, but what business does the DEQ have getting involved in local economic development activities. We could see instances where the department might withhold a permit from the earliest applicant in favor of award to another firm which promised to be more labor intensive. We contend that is not an appropriate role for the department.

Another problem with DEQ control of a permit from a shutdown in a non-attainment situation is that the permit would be effectively lost. If attainment were not achieved the department would be hesitant, if not legally restrained, to reissue the permit. Thus, a shutdown or curtailment would mean the permit would be used to achieve progress toward attainment, at the cost of local economic well being. This could occur despite the fact that industry was progressing satisfactorily on SIP implementation. In Medford's situation the wood stove increase has caused a net loss of ground despite clean up by industry.

Finally, the idea of decreasing values of banked emissions over time is totally unacceptable. This would be a major disincentive to banking.

The delineation between fine and coarser particles has no basis in existing law. At this point in time we are still dealing with a TSP standard. We agree that there is a health basis. But, when that is officially recognized we anticipate a change in the primary and secondary standards changed to reflect the significance of the fine particle. The total standard should be reduced. Until this occurs any delineation is inappropriate.

We further oppose the idea of a ratio system for offsetting emissions of one size particle against another. Weathersbee proposed such a system. It would be worthy of consideration after federal standards are revised.

Mr. Joe Richards, Chairman
Page 4
June 13, 1981

In issue 9 the law of separate PSELS raises concerns about ending up with separate bubbles, rather than a plant bubble. We can foresee situations where this might occur. This would defeat the concept of bubbling, in which offsets in one functional area are traded internally for increases in another area of the plant. Without this flexibility, bubbling cannot function.

The ozone level discussion was very interesting. We have gone on record previously favoring the 0.12 ozone level for both primary and secondary levels. We feel that the commission should take action to confirm the 0.12 level, and eliminate once and for all this disparity.

We still question the 30 km definition of a buffer zone radius, as discussed in issue 15. If you can't model VOC emissions, how can you mitigate them. A plant within the 30 km boundary will have to get offsets, or use up part of the VOC growth increment. But the question is how much. The department admits they can't model the situation, so establishment of the amount would be an unfounded, arbitrary action. This will specifically impact all of the plywood plants in Grants Pass, relative to the Medford AQMA. We do not accept Weathersbee's argument that Medford will be in compliance as a solution. It is a tenuous promise at best.

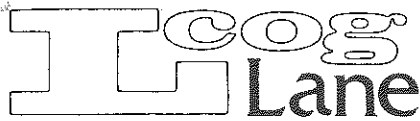
Many of our original concerns are still largely unanswered to our satisfaction. The department seems to be hung up on pride of authorship on some of the items. We recommend that either the PSEL rule be remanded to them with more pointed direction for revision or the commission drop the concept. Your consideration in this matter will be appreciated.

Very truly yours,



William H. Carlson, Chairman
SOTIA Air Quality Committee

WHC:lb



Lane Council of Governments

EQC
My Young
Sawyer
Lucas

NORTH PLAZA LEVEL PSB / 125 EIGHTH AVENUE EAST / EUGENE, OREGON 97401 / TELEPHONE (503) 687-4283

June 15, 1981

Mr. Joe Richards, Director
Environmental Quality Commission
c/o D.E.Q.
P.O. Box 1760
Portland, Oregon 97207

Dear Mr. Richards:

RE: Issues at Public Hearing on June 30, 1981

The L-COG 208 Areawide Advisory Committee, in addition to its considerations on, and L-COG Board recommendations pertinent to the proposed Groundwater Policy, has also reviewed the proposed Amendment to OAR 340-41-006 in regards to the definition of Non-Point Sources.

The definition, as proposed, is a good start but the AAC had concerns that it left some types of wastes vaguely categorized and was not sufficiently complete so as to be transferable beyond groundwater situations.

The 208 AAC would recommend the following amendments to the proposed definition: *(italics are additions)*

(17) "Nonpoint Sources" means discharges into waters of the state from diffuse waste sources, or discharges from particular sources that do not have discrete, confinable or and discernable conveyances. Nonpoint Sources are often associated with rainfall events and/or various land and product management activities.

The AAC felt that it was desirable to set up two conditions for Non-Point designation, that is, the type of event (rainfall/land management) and its method of discharge (diffuse or specific without conveyance). The worry was that some very particular sources do not have discrete conveyances (e.g. industrial non-process wastes) while some diffuse sources may have conveyances (individual oil dumps in storm drains).

The AAC felt that a revised definition would be more generally applicable and result in less confusion.

Respectfully submitted,

Laurie Power, Chairperson
208 AAC

LP:GR:db/F2

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Oregon Sanitary Service Institute

4645 18th Pl. S., Salem, Oregon 97302 Phone 399-7784

Research
Standards
Service

July 17, 1981

OREGON ENVIRONMENTAL QUALITY COMMISSION

SOLID WASTE MANAGEMENT RULES

We agree with staff on the need to update the nearly ten year old rules. We agree on the need to meet minimum federal standards necessary to keep control in Oregon and not at federal level.

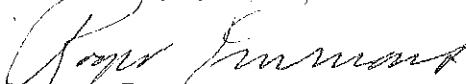
Our concerns are generally on the detail required or which may be required. With all due respect to your present staff, there is a great deal of discretionary authority involved. Pushed to or near the limit, the regulatory process becomes needlessly expensive, time consuming and expensive without increased environmental protection benefits.

Without violating laws or rules, we believe that a discretionary authority should allow for alternative technology, systems, facilities, operations, engineering and approaches. We are proposing a specific section to implement this concept.

For clarity, our proposed changes and amendments are in the order of appearance in the regulations, not in our order of priority or importance.

We believe the changes are necessary, are constructive and do justify the short additional time involved in making them.

Sincerely yours,


Roger Emmons,
Executive Director

CC: President Ezra Koch
Angus MacPhee
Bill Webber
Bruce Bailey

SOLID WASTE MANAGEMENT RULES, PROPOSED CHANGES, (ROUGH DRAFTED)

1. Open Dump. Any facility for the disposal of solid wastes that doesn't comply with the rules is an "open dump" and is prohibited. A compliance schedule is authorized by ORS 459.225 (1) and 61-020 (3) of the rules for existing sites. In either a closure permit or a permit to upgrade an existing site, the compliance schedule would specify the time and requirements that must be met.

We believe that all sites with significant, substantial and continuing environmental problems should be placed on a closure and compliance schedule, a closure and upgrade schedule or be closed. Those who make the investment necessary to properly close or to upgrade the site should be protected if they stick to the compliance schedule. And there is no legitimate excuse for not enforcing the regulations against those that won't accept responsibility and comply...lest the Department and Commission be accused of selective enforcement.

It's not our policy to encourage deliberate violation of the rules or law, but what about sites in the future? There may be an unintentional violation. A condition may develop that needs to be rectified. Or the best answer for a necessary public use site may be to give a reasonable time to clean up its act.

Action Recommended. Establish policy for the record on compliance schedules or enforcement as the two alternatives.

In the rule, 61-020 (3), P. 10, delete "which were existing at the time of adoption of these rules".

Determine as a matter of law if the Department may exercise this authority where it appears that action of the Commission is required by ORS 459.225 (1).

2. When is a Permit Required. Since even changes in disposal sites may require permits, we need clear guidance and believe that both state and regional staffs should have uniform guidelines. What does "substantially alter, expand or improve" a disposal site mean? Who makes that determination? Who has authority to approve changes orally, orally confirmed in writing, operational plan amendments or by other means short of a permit amendment for a "substantial" change.

Action Recommended. We agree that staff should prepare general guidelines and procedures for all to follow. They should be reviewed with the regions and with public and private disposal site operators so that they are informed. No change in rules would be required.

3. Solid Waste Boundary. We have no problem with the definition as being the edge of the solid waste in 61-010 (33), p. 8.

We don't have a problem with monitoring wells, where necessary and required, being placed at the solid waste boundary if the landfilled wastes run right up to or over the property line.

In all other cases, monitoring at the solid waste boundary under 61-040 (5) (a) (B), p. 25 touching the garbage or wastes is a useless waste of money. We all know what you would find in the well samples.

Recommended Action. In 61-040 (5) (b) on page 25, revise to read: "Where monitoring is required, the Department (may) shall specify an alternative boundary between the solid waste boundary and the property line if adequate room exists and based on a consideration of all of the following factors:"

4. Letter Authorizations. The whole regional landfill concept promoted by the Commission and the Department is get enough solid waste and dollars in one place to do an environmentally acceptable job of handling those wastes.

Implicit in that costly burden for local government and private sites is the assurance all citizens, haulers, businesses, industries and government agencies or units will share the cost.

Too often, letter authorizations have been used to allow on or off site dumps to benefit a single disposer. In at least one instance, disposal quotes were obtained from the nearest permitted landfill and were added to bid costs. Then a dump was used to avoid the costs and the money saved was pocketed by the dumper.

Not every landclearing project or special condition requires wastes to be taken to a disposal site. But this exemption from what everyone else has to pay should be an extraordinary remedy used with special care.

Your staff has even sought an informal opinion of the Attorney General to back the requirement that new disposal sites meet the test of public need which of course includes economic need. Contrast that standard to a mere "discussion of the need and justification for the proposed project." 61-027 (1) (b), p. 15.

Recommended Action. In 61-027, revise the rule to read: "The Department may authorize the temporary operation of a disposal site as an extraordinary remedy where there is a complete justification of the need and necessity for the action by issuing a 'letter of authorization' subject to the following:"

61-027 (1) (b). "(A discussion of the need and justification for the proposed project) A justification of the need and necessity for the proposed disposal site including, without limitation, existing disposal sites that could dispose of the solid wastes."

61-027 (2) "Upon receipt of a complete written application, the Department (Option: Commission) may approve or disapprove the application if it (is satisfied) finds that:

"(a) (The applicant has demonstrated sufficient need and justification for the proposal) There is or is not a need

to create a new disposal site.

- "(b) The proposed (project) disposal site is or is not likely to cause a public nuisance, health hazard, air or water pollution or other environmental problem.
- "(3) Prior to approval, the Department shall notify existing disposal sites in the service area of the proposed new disposal site and solicit recommendations on the need for a letter authorized disposal site. This requirement may be waived in the event that a public or private emergency exists as determined by the Department.
- "((3)) (4) The Department may deny an application for a letter authorization under subsection (2) or this subsection and may also revoke or suspend an issued letter authorization on any of the following grounds:"
(Renumber the following subsection).

5. Waiver of Requirements. Feasibility studies, plans and specifications and other extremely expensive and time consuming requirements may be waived if environmental problems are not likely. 61-020 (4), p. 10.

Action Recommended. Establish a policy of waiver wherever feasible and establish a simple procedure for applying for and being granted a waiver. No rule change required.

6. Waste Quantities. It is difficult and misleading to establish "daily quantities. Annual quantities should be required and then only on an estimated basis. Until local government determines hours and days of operation of public or private sites, usually one of the last steps, no estimate can be made of daily quantities. Where it appears that substantial seasonal or other variations make a significant difference, the Department can require additional information under 61-025 (2) (e), P. 12-13.

Recommended Action 61-025 (5) (d), P. 14. "...(average total daily quantity of waste materials) average annual estimated quantity of solid wastes that will be received..."

61-040 (1) (d), p. 23. "...(average total daily quantity of waste materials) average annual estimated quantity of solid wastes that will be received..."

7. Public Hearing on a Proposed Site. We understand that this applies only to a new disposal site in 61-025 (6), p. 14.

The word "local" could be construed to mean another hearing at the site itself even though Planning Commission and Council or Board hearings have been held.

The Department should also be qualified to hold the hearing.

Recommended Action. In 61-025 (6), delete "local" and after "public hearing" insert "within the local government unit having jurisdiction". In the same subsection, after "hearing be held", insert "by the Department or"

8. Denial of Permit based on Solid Waste Plan. We find no place in Oregon law that requires a local government unit to do a solid waste plan. We find no requirement that it be updated. Not all local government units have plans. And the carrot for planning, grants by DEQ from pollution funds, has been terminated by proposed changes in this Legislature (unless there has been a last minute change).

So a needed site or facility could be denied a permit for lack of bad local solid waste planning or the lack of that plan. In addition, a permit could be denied to alter, improve or expand or change the system of disposal based on lack of an updated plan.

Recommended Action. In section 61-026 (1), delete (c) as not authorized by law and not workable. (The proposal is not part of or not compatible with the adopted local solid waste management plan approved by the Department.)

9. Bench Marks as a Basis for Surveying & Enforcement An on-site bench mark should be adequate for all Department requirements except for floodplain or wetland sites where the nearest established bench mark such as a highway can serve.

Recommended Action. No change in 61-030 (1), p. 16, which requires an on-site bench mark.

In 61-040 (1) (a), p. 22: "...horizontal and vertical controls shall be established. (and) Where deemed essential to insure compliance with applicable laws and regulations, an on-site bench mark shall be tied to an established bench near the site. (Where practicable, the bench mark shall be referenced to the Oregon State Plane Co-ordinate System, Lambert Projection.)

10. Design Calculations. Staff indicated they wanted the assumptions used to determine pumps, pipes, facilities and systems. We concur. An example would be the amount of water collected or to be collected in a leachate treatment system. This is different from the actual calculations or a calculator or in a computer.

Recommended Action. In 61-040 (1) (c), p. 22, delete "design calculations" and insert "design assumptions".

11. Types and Weights of Equipment. The Department should establish minimum weights of equipment to do particular jobs. It's obvious you shouldn't be using a toy tractor to get the job of a D-8 done in compacting wastes. The operator should be free to choose between and change operational equipment based on performance statistics and operational experience.

Recommended Action. In 61-040 (1) (d), p. 23, delete "types and weights of equipment". Standards, minimum standards that is, could be determined by the Department.

12. Litter. A permittee should be responsible for blown litter from the site, but not, in any way, for the public who illegally drops, sifts or leaks loads onto public or private property. We want to clarify that position.

Recommended Action. In 61-040 (23) (b), p. 33, after "from the disposal site", delete "and" and insert "or".

13. Signs. The emergency telephone number should be registered with DEQ, local fire department and neighbors. Putting the number of the sign allows the public to harass the operator when the site is closed. And the sign should be limited to those materials that will not be accepted. The list of accepted materials gets too long and is unreadable or unread. Again, there is a place for a better alternative. At least one operator of several sites uses handouts on what will be accepted. (see our last recommendation)

Recommended Action. In 61-040 (19), p. 30-31, delete "emergency telephone number" and "either will be accepted or".

14. Weighing. Weight has little or no value in landfill planning, design or operation. The same is true of other disposal sites with the exception of resource recovery facilities where input and output are based on tonnage.

We design for and sell space in a landfill. The amount of material we can pack in does not depend upon weight. It depends on how much we can compact the material into the landfill. Concrete weighs heavy, but doesn't compact very well.

Admittedly, volume estimates are not perfectly accurate. But weight means nothing at all for most disposal sites. Scales are another added expense as is the cost of labor and time in weighing.

We have cooperated in voluntary weighing programs in the past and will continue to do so. But we oppose unnecessary public expense and gathering useless statistics.

Recommended Action. Delete 61-040 (25), p. 34, or delete it and insert: "Where the Department finds that it is necessary to plan and design a particular project that incoming loads be weighed, it shall provide the necessary scales and assist the permittee in the weighing."

15. Landfill Closure. Does the Commission and Department have the legal authority to specify post closure requirements on the following: (a) The permittee, (b) The landowner and (c) The transferee of the land. For what period of time?

We testified in support of your bill for financial assurance for post closure, which was not passed by the Legislature. In fact, we contributed to broadening what started as a limited bonding measure on public sites to financial assurance, where necessary, for any sites, including our privately owned or privately operated sites.

We do object in 61-040 (28) (b) to liability in perpetuity of the permittee for erosion, etc. What if the permittee, public or private, only has a limited lease? What if the land changes hands? How can a permittee who no longer has any operation or income from the operation be required to maintain the site?

Recommended Action. See the necessary legal advice suggested by these questions and a legislative remedy if necessary. Delete (28)(b) or revise to limit to about five years as the site stabilizes.

16. Alternatives. We're always looking for a better and less expensive way to accomplish environmental protections. This should be recognized in the regulations.

Recommended Action. Add a new Section 61-041 to read:

61-041 If the Department finds that a proposed alternative technology, system, operation, engineering or approach provides equivalent environmental protection without violating applicable federal statutes, regulations or criteria or Oregon statutes, it shall approve the alternative in meeting the requirements of 61-020 to 61-040 of these rules.

LANE REGIONAL

AIR POLLUTION AUTHORITY



EQC
by Young
Underwood
Weathershell
(503) 686-7618
1244 Walnut Street, Eugene, Oregon 97403

Donald R. Arkell, Director

May 22, 1981

Joe Richards, Chairman
Environmental Quality
Commission
P.O. Box 1760
Portland, OR 97207

RE: Proposed Open Burning Rules

Dear Mr. Richards;

LRAPA appreciates the opportunity to review the draft revisions to the proposed Open Burning Rules prior to final action by the EQC. There are several provisions of the draft dated 05/05/81 which merit some additional comment.

1. The proposed definition of boundaries for restricted zones for construction, demolition, and domestic open burning are now proposed for Lane County, as suggested in LRAPA and Local Fire District testimony. That provision is still supported by the Authority.
2. The requirement to extinguish fires two hours before sunset is, in our view, unenforceable for domestic burning in rural areas. There is substantial incentive for individuals to do such burning during the late afternoons, after normal working hours, and we believe that resource constraints on fire districts in rural areas will cause this rule to have a generally low enforcement priority. LRAPA's recommendation is that the current dawn-to-dusk burning hours be retained.
3. The LRAPA Board proposed that a single, nine-month burning season be instituted for domestic open burning in place of the current two-season burning year. The reasons for this proposal were that:
 - A. There is expressed desire from the rural areas of Lane County to provide additional time for disposal, by burning, of yard debris, because of limited opportunity to do so during the Spring and Fall burning seasons.
 - B. Ambient concentrations of Particulate Matter from domestic open burning would not increase, as long as it is conducted only on days of good atmospheric ventilation.

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Joe Richards
May 22, 1981

Page 2


- C. That the cost of administering the domestic burning permit program by the Fire Districts would be cut substantially by reducing the number of permits necessary each year.

We reaffirm our position that a single season is easier to manage and, with vigorous enforcement, will not cause increases in Ambient Particulate concentrations.

In taking the above positions and in developing recommendations for the State Rules which apply to Lane County, it is recognized that restrictions on open burning are necessary in areas of the State where there is high population exposure potential or unacceptable air quality. We believe that the recommendations above are modest, and do not endanger that precept. They will, however, provide a measure of relief in those areas where alternative disposal is not reasonably available, and will provide sufficient flexibility within which the Authority and the local Fire Districts can administer effective open burning controls.

It is requested that you give serious consideration to LRAPA's comments and testimony, as well as that of the local Fire Districts in Lane County.

Sincerely,


Bill Hamel, Chairman
LRAPA Board of Directors

DRA/mjd