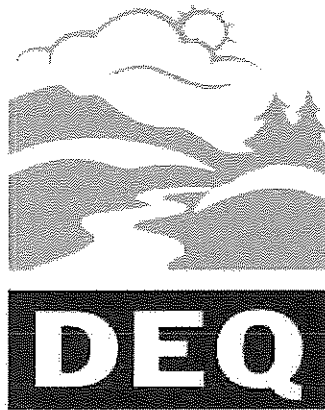


**OREGON  
ENVIRONMENTAL QUALITY  
COMMISSION MEETING  
MATERIALS 09/22/1994**



**State of Oregon  
Department of  
Environmental  
Quality**

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# A G E N D A

## SPECIAL ENVIRONMENTAL QUALITY COMMISSION MEETING

Thursday, September 22, 1994

DEQ Conference Room 3a

811 S. W. 6th Avenue

Portland, Oregon

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**Thursday, September 22, 1994: Special Meeting beginning at 1:00 p.m.**

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- A. **†Information Item:** Issues raised by Knee Deep Cattle Company concerning Bindana Company/Econo Lodge Wastewater Treatment facility Discharges and DEQ enforcement
- B. **†Rule Adoption:** Proposed modification of rules affecting on-site sewage disposal
- C. **†Rule Adoption:** Proposed rulemaking revision of water quality permit fee schedule for industrial and agricultural wastewater facilities
- D. **†Information Item:** Update to Commission on advisory committee process and related information on the Three Basin Rule concerning water quality issues in the Clackamas, North Santiam and McKenzie rivers sub-basins

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

*‡The Commission does not usually take public comment on informational items.*

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


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

*September 15, 1994*

State of Oregon  
Department of Environmental Quality

Memorandum†

Date: September 20, 1994

To: Environmental Quality Commission  
From: Fred Hansen, Director   
Subject: Agenda Item A, September 22, 1994, EQC Meeting

Further Information Regarding Bindana (EconoLodge) Wastewater  
Treatment Facility

**Statement of Purpose**

At the August 26, 1994 Commission meeting, statements were received during the public forum regarding the above wastewater treatment system. The Commission requested that additional information and an update be provided at the next Commission meeting.

**Background**

Bindana Investment Company, Limited owns and operates a wastewater treatment facility near Coburg, Oregon. The treatment facility serves the EconoLodge motel, a restaurant, a tavern and a 68 space RV park. Treatment is accomplished through a mechanical treatment plant (built in the early 1960's), followed by one or more polishing ponds. During the summer, effluent is held and/or spray irrigated on site, with no discharge to surface water allowed. Winter discharge is to an irrigation ditch which is an unnamed tributary to Muddy Creek.

As a result of on-going violations with the existing treatment system, the Department and Bindana entered into a Stipulation and Final Order in January, 1994 to require system improvements. These improvements are scheduled to be completed by November 2, 1994.

Mike Stevenson, a downstream landowner, presented his concerns at the August 26, 1994 Commission meeting. His attorney, David Moon, was also present and spoke. The Department responded at the Commission meeting with some information on actions

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

taken by the Department. The Commission requested additional information and an update at this (the next) Commission meeting.

The concerns of Mr. Stevenson and the Department's response can be summarized as follows:

1. The Department has not taken enough action to bring this source into compliance, and what action that was taken, has not been effective.

**Department response:** The Department has made a diligent effort to bring this source into compliance and make necessary improvements. All complaints have been investigated, and all violations have been followed up with appropriate enforcement actions. In the past fifteen months, the Department has been on site ten times (see Attachment A for summary), and has issued ten enforcement documents including four penalty demands (see Attachment B for summary). The Department has also required that a new treatment system be built, and construction is currently being completed.

We also agree that some violations are still occurring, despite the Stipulation and Final Order and maximum possible fines being issued. One major purpose of penalties is to compel compliance, and it appears in this case that the penalties may not have been sufficient. The Enforcement Section has reviewed the standard stipulated penalties included in SFO's, and in the future these penalties will be adjusted. It should be noted that the Department's experience with Bindana is very rare - by the time an Order is negotiated, everyone understands that the Department is insisting on compliance, there is a clear understanding on what is expected by the Department, and repeated violations of the Order do not occur.

2. Significant environmental damage has and is occurring as a result of this source's discharge.

**Department response:** The Department disagrees. While there have been numerous violations, almost all are expected to have had little or no impact on the receiving stream. Of the violations found in 1993-4, half were either reporting violations or exceedances of the treatment plant discharge to the polishing ponds. While these discharges over time will degrade the discharge, due to the very large dilution (over 100 to 1) in the ponds, the impact on the discharge to the stream is expected to be insignificant.



Of the violations of effluent limits where the discharge was to the receiving stream, most were either minor exceedances or were for treatment efficiency which does not directly relate to stream impact. Attachment C is a summary of the violations and their estimated impacts, and Attachment D gives more details regarding the violations and their impacts.

The most significant incident occurred June 2, 1993, when the treatment plant was flooded out and raw sewage was bypassed directly to the receiving stream. The flooding occurred as a result of three days of very heavy rain, and significant dilution was available. Mr. Stevenson claims that cattle drinking this water sickened and some died. These allegations have not yet been verified, are disputed by Bindana, and a civil suit is underway to resolve the matter. While it is possible for disease transmission from humans to cattle (and vice versa), it is very unusual and has not, to the Department's knowledge, occurred in Oregon as a result of cattle drinking water contaminated with human wastes. It should be noted that the Department's bacteria water quality standard is set and based on the incidence of human disease from bacteria, and is designed for protection of humans (and the beneficial uses of water contact recreation), and not set to protect livestock watering (another beneficial use).

There was discussion at the August Commission meeting of the upsets in the treatment process that the Department noted in a May, 1994 inspection. The upset was caused by what was characterized by Mr. Stevenson or his attorney as "hazardous waste". At the Department's direction early this summer, Bindana has investigated and located the source of the upset - paint from cleaning painting equipment, during the remodeling efforts underway at EconoLodge. The Department agrees that paint waste could cause the upset in the biological process observed in May, and is the likely cause of the upset. The Department has requested additional testing and investigations by Bindana to insure that there are no other sources of materials toxic to the treatment plant microorganisms.

It should be noted that effluent flows from the treatment plant to a very large pond (over 100 days storage of plant effluent). Short term discharges of material such as strong cleansers or paint can upset the treatment plant, but are much diluted in the polishing pond. The presence of very abundant fingerlings in the polishing pond (as observed in September, 1994) is a clear indication that the presence of toxic compounds, if any, is below the level of concern for a discharge to the receiving stream.

Mention was also made of improper sludge disposal practices. The Department disagrees that sludge is being improperly managed by Bindana. Sludge from the mechanical treatment plant is currently hauled as needed to the Eugene/Springfield treatment plant for further treatment and disposal. This practice has been verbally approved by the Department, although a formal written sludge management plan has not been submitted (and a Notice of Noncompliance issued for this failure to report). The reference may have been to the filling in of one of two of the large polishing ponds without removing sludge first. The pond in question has not received effluent for a number of years, and what sludge may have been in it has been entirely stabilized. A site visit by the Region's sludge management expert confirmed that what sludge there was has been converted to inert material that could be left in place or otherwise used on site or off.

3. Even with a new treatment system, the discharges will not get better and environmental damage (and harm to Mr. Stevenson's business) will continue.

**Department response:** The Department disagrees. The construction currently underway is expected to significantly improve the compliance status and discharges from this facility, although further efforts by both Bindana and the Department may be necessary to assure good operation and maintenance. Changes that should result in a much better compliance record in the future:

- The sewer collection system is to be re-built, which will exclude groundwater and prevent the recurrence of flooding that caused the bypass of June 2, 1993.
- The new treatment plant is a better treatment system, is more mechanically reliable, and is much easier to operate. This is in contrast to the old treatment plant, which is both "under-designed" by current engineering standards and very complex and difficult to properly operate.
- As a result of the Department's re-organization, this treatment facility is now assigned to DEQ staff with only 25 assigned sources and located in Eugene (15 minutes from Bindana). Prior to this year, it was assigned to a staff member with over 100 assigned sources and located in Salem (an hour away).
- The frequency of inspection is based on a number of factors, including staff levels, expected water quality impacts, and compliance history. Given the numerous violations, this source will be given more frequent

scheduled inspections in the future. We will continue to respond to complaints.

- Once construction is completed, the Order will be terminated and future violations will result in much higher penalties. The current Order limits penalties for effluent violations to \$100 - effluent violations for permit violations are likely to start at \$2000 (Class 2, moderate violation).
- A better stream flow gauge will be installed, which will help insure that discharges do not occur if there is not sufficient dilution available.

#### **Authority of the Commission with Respect to the Issue**

The Commission has broad overview authority for the Department's actions.

#### **Summary of Public Input Opportunity**

The Department continues to hear approximately weekly from the Stevensons or their attorney regarding their on-going concerns. The Department has drafted a permit for the new treatment facility, which will be put on public notice and a public hearing held in October, 1994.

#### **Conclusions**

- The Department has followed up on all complaints and violations and has issued appropriate enforcement actions.
- Violations have continued despite penalties being issued.
- The Department has reviewed the levels of stipulated penalties included in Orders, and intends to increase them to insure that they are sufficient to compel compliance.
- With completion of the upgraded treatment facilities and increased penalty levels, the Department expects that this facility will be able in the future to operate in compliance and without damage to the receiving stream and beneficial uses.

Memo To: Environmental Quality Commission  
Agenda Item A  
September 22, 1994 Meeting  
Page 6

**Intended Future Actions**

- The Department will continue to closely monitor the compliance status of this facility, and issue civil penalties as violations are discovered and as appropriate.
- Future Stipulation and Final Orders will include higher penalties to compel compliance.

**Department Recommendation**

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department as appropriate.

**Attachments**

Attachment A - Summary of Site Inspections, 1993-4

Attachment B - Summary of Enforcement Actions, 1993-4

Attachment C - Summary of Violations and Impact, 1993-4

Attachment D - Description of Violations, 1993-4

Approved:

Section:

Barbara Burton

Division:

John Hammond

Report Prepared By: Barbara Burton

Phone: (503) 686-7838, Extension 225

Date Prepared: September 19, 1994

BAB:bab  
e:\wp51\bindana.eqc  
September 19, 1994

## ATTACHMENT A

### SUMMARY OF SITE INSPECTIONS, 1993-4

#### BINDANA INVESTMENT COMPANY (ECONOLODGE)

6/3/93 - Complaint response to report of raw sewage bypassing (plant was flooded out) - confirmed.

6/4/93 - Check to see how plant repairs going.

6/10/93 - Check to see if plant back in operation.

8/6/93 - Annual inspection

5/24/94 - Complaint response to report of high bacteria levels in sump discharge. Discharge was very clear, no odor, no evidence of polluted discharge but fecal coliform level did exceed instream standard (540 count versus no more than 10% of multiple samples can exceed 400 count). Directed Bindana to stop discharge to surface water.

8/11/94 - Complaint response to report of illegal discharge of sewage and/or effluent. Walked receiving stream, no evidence of any discharges, water clear with many fish in deeper pools and frogs.

8/25/94 - Complaint response to report of improper sludge disposal in pond being filled. What sludge was in the pond is now inert and totally stabilized, filling in of pond or use of pond sediments on site acceptable. Pond is reported to not have received effluent for several years.

8/31/94 - At request of Stevensons, walked the length of the receiving stream from upstream of winter discharge point to downstream of property. No evidence of any discharges or permit violations observed.

9/9/94 - Complaint response to report of a broken sewer pipe. Confirmed that break in effluent force main between treatment plant and lined pond had occurred, been repaired but not reported as required. No evidence of discharge of effluent to surface waters, no evidence of effluent on ground surface.

9/15/94 - Review/inspection of construction of new collection and treatment system; also brief inspection of existing treatment plant and receiving stream.

## **ATTACHMENT B**

### **SUMMARY OF ENFORCEMENT ACTIONS, 1993-4**

#### **BINDANA INVESTMENT COMPANY (ECONOLODGE)**

6/2/93 - Notice of Noncompliance for 12 effluent violations in February and March, 1993 and one failure to monitor required parameter (flow).

6/18/93 - Notice of Noncompliance for June 2, 1993 raw sewage bypass (note this was followed up by civil penalty 8/4/93).

7/21/93 - Notice of Noncompliance, for nine effluent violations in April, May and June, 1993

8/4/93 - Notice of Permit Violation and Notice of Civil Penalty for \$1400. The penalty was for the June 2, 1993 discharge of raw sewage. Penalty was paid.

12/17/93 - Notice of Noncompliance issued, for failure to submit monitoring reports for September and October on time.

1/14/94 - Stipulation and Final Order signed, requiring upgraded facilities.

3/28/94 - Penalty Demand Notice for \$1000, for ten interim limit violations in February, 1994, penalty paid.

5/4/94 - Penalty Demand Notice for \$400, for four interim limit violations in March, 1994, penalty paid.

8/24/94 - Penalty Demand Notice for \$400, for four interim limit violations in June, 1994, penalty paid.

9/21/94 - Notice of Noncompliance for failure to report sewer line break, failure to file written sludge management plan. Enforcement referral, civil penalty recommended, under Department review.

## ATTACHMENT C

### SUMMARY OF VIOLATIONS AND IMPACT, 1993-4

#### BINDANA INVESTMENT COMPANY (ECONOLODGE)

**Reporting or procedural violations - 6.** Impact on receiving stream - none.

**Exceeding effluent limits from treatment plant to polishing pond - 17.** Impact on receiving stream - minimal and any affects would not be seen until the next discharge period. If the treatment plant effluent limits over a period of time are exceeded, the polishing ponds will accumulate solids and the eventual discharge from the pond will be degraded.

**Exceeding effluent limits from pond to receiving stream - 22.** Impact on receiving stream - some impact possible. All violations were for BOD and TSS, which will affect aquatic life if any of the beneficial uses. Of these 22 violations, 8 were unrelated to stream impact and 8 were within 25% of the effluent limit. The largest violation was approximately twice the effluent limit. None of the violations were from improper disinfection.

**Other - 2.** Bypass of the flooded treatment plant to receiving stream in June, 1993 is likely to have had an impact, although there was considerable dilution. The flooding of the treatment plant was the result of three days of very heavy rain. Downstream users have claimed that cattle drinking from the receiving stream were sickened and some died as a result of the bypass, although these allegations have not yet been verified (civil suit is in progress).

The second incident was a discharge of pumped groundwater that had somewhat elevated levels of bacteria. Under the terms of the Order, this was not technically a violation. Impact on receiving stream - minimal.

ATTACHMENT D

DESCRIPTION OF VIOLATIONS FOR 1993-4

BINDANA INVESTMENT COMPANY (ECONOLOGDE)

\*\*\*\*\*

<u>Date</u>	<u>Parameter</u>	<u>Limit</u>	<u>Reported</u>
3/93	BOD Removal Efficiency	85 %	80 %
3/93	TSS Removal Efficiency	85 %	67 %
2/93	BOD Removal Efficiency	85 %	73 %
2/93	TSS Removal Efficiency	85 %	78 %

**NOTE:** These were discharges to the creek. The concentration limits and pounds per day limits were not exceeded. The removal efficiency requirement insures good treatment efficiency is occurring, but does not in and of itself have any impact on the receiving stream. Based on both the concentration and total pound loadings being in compliance, these violations are not expected to have a significant impact on the receiving stream. An NON was issued.

\*\*\*\*\*

<u>Date</u>	<u>Parameter</u>	<u>Limit</u>	<u>Reported</u>
3/93	TSS Monthly Average	20 mg/L	25 mg/L
3/17/93	Fecal Coliform, Wkly	400/100 ml	600/100 ml
3/93	No flow recorded	Daily	
2/17/93	BOD Weekly Average	30 mg/L	37 mg/L
2/93	BOD Monthly Average	20 mg/L	25 mg/L
2/17/93	TSS Weekly Average	30 mg/L	36 mg/L
2/17/93	TSS Monthly Average	20 mg/L	23 mg/L
2/17/93	Fecal Coliform, Wkly	400/100 ml	6650/100 ml
2/93	Fecal Coliform, Mnthly	200/100 ml	215/100 ml

**NOTE:** These were discharges from the treatment plant to the pond, no discharge to surface water. Minimal, but potential environmental impact as concentrations of BOD and solids were not significantly higher than permit levels and wastes will be further treated and diluted in the pond. These are above limits in the permit, and so an NON was issued.

\*\*\*\*\*



\*\*\*\*\*

<u>Date</u>	<u>Parameter</u>	<u>Limit</u>	<u>Reported</u>
4/93	BOD Removal Efficiency	85 %	84 %
4/93	TSS Removal Efficiency	85 %	69 %
5/93	BOD Removal Efficiency	85 %	83.5 %
5/93	TSS Removal Efficiency	85 %	64 %

**NOTE:** These were discharges to the creek. The concentration limits and pounds per day limits were not exceeded. The removal efficiency requirement has to do with insuring good treatment is occurring, but does not in and of itself have any impact on the receiving stream. Based on both the concentration and total pound loadings being in compliance, these violations are not expected to have a significant impact on the receiving stream. An NON was issued.

\*\*\*\*\*

<u>Date</u>	<u>Parameter</u>	<u>Limit</u>	<u>Reported</u>
5/19/93	BOD Weekly Average	30 mg/L	35 mg/L
5/93	BOD Monthly Average	20 mg/L	27 mg/L
5/93	TSS Monthly Average	20 mg/L	21 mg/L
5/19/93	FC Weekly Average	400/100 ml	600/100 ml
6/93	No flow recorded	Daily	
6/93	TSS Weekly Average	30 mg/L	33 mg/L

**NOTE:** These were discharges from the treatment plant to the pond, no discharge to surface water. Minimal environmental impact as wastes will be further treated in the ponds. NON issued.

\*\*\*\*\*

<u>Date</u>	<u>Violation</u>
6/2/93	Unauthorized Discharge to Surface Water Failure to Report Noncompliance

**NOTE:** The treatment plant flooded and sewage was pumped into the creek. The sewage is assumed to have been very dilute as a result of all the rain, but the discharge may have caused significant environmental impact to the receiving stream. The permittee did not report the incident which could have resulted in further discharges to the creek without DEQ oversight. A civil penalty was issued for \$1,400.00, and an SFO was eventually signed in 1/94.

\*\*\*\*\*

\*\*\*\*\*

<u>Date</u>	<u>Violation</u>
9/93 and 10/93	Failure to submit DMR on time

**NOTE:** Not submitting a DMR on time does not allow the regional inspector to respond to any noncompliance of permit conditions in a timely manner. No environmental impact resulted and a Notice of Noncompliance (NON) was issued, the reports were submitted in December, 1993.

\*\*\*\*\*

<u>Date</u>	<u>Parameter Exceeded</u>	<u>Limit</u>	<u>Reported</u>
2/2/94	BOD Daily Maximum	20.5 #/day	33.6 #/day
2/2/94	BOD Weekly Average	16.7 #/day	33.6 #/day
2/9/94	BOD Weekly Average	16.7 #/day	18.7 #/day
2/16/94	BOD Daily Maximum	20.5 #/day	29.9 #/day
2/16/94	BOD Weekly Average	16.7 #/day	29.9 #/day
2/94	BOD Monthly Average	12.6 #/day	19.0 #/day
2/2/94	TSS Weekly Average	30.0 #/day	33.6 #/day
2/16/94	TSS Daily Maximum	35.0 #/day	37.4 #/day
2/16/94	TSS Weekly Average	35.0 #/day	37.4 #/day
2/94	TSS Monthly Average	20.9 #/day	21.8 #/day

**NOTE:** These were discharges to the creek and exceeded discharge limits in the SFO. The discharges could cause lower dissolved oxygen (DO) levels in the creek, but DO was being monitored and it remained above 6 ppm which should be sufficient for fish species. A PDN was issued for \$1000.00.

\*\*\*\*\*

<u>Date</u>	<u>Parameter Exceeded</u>	<u>Limit</u>	<u>Reported</u>
3/23/94	BOD Daily Maximum	20.5 #/day	21.3 #/day
3/23/94	BOD Weekly Average	16.7 #/day	21.3 #/day
3/30/94	BOD Weekly Average	16.7 #/day	18.5 #/day
3/94	BOD Monthly Average	12.6 #/day	13.6 #/day

**NOTE:** These were discharges to the creek, exceeding discharge limits in the SFO. The discharges could cause lower dissolved oxygen (DO) levels in the creek, but DO was being monitored and it remained above 6 ppm which should be sufficient for fish species. A PDN was issued for \$400.00.

\*\*\*\*\*

\*\*\*\*\*

<u>Date</u>	<u>Parameter Exceeded</u>	<u>Limit</u>	<u>Reported</u>
6/1/94	TSS Weekly Average	40 mg/L	53 mg/L
6/16/94	TSS Weekly Average	40 mg/L	43 mg/L
6/94	TSS Monthly Average	30 mg/L	40 mg/L
6/94	BOD Monthly Average	30mg/L	33 mg/L

**NOTE:** These were discharges from the treatment plant to the pond, no discharge to surface water. Minimal environmental impact as wastes will be further treated in the pond. These are above limits in the SFO, and so a Penalty Demand Notice (PDN) was issued for \$400.00.

\*\*\*\*\*

<u>Date</u>	<u>Violation</u>
9/15/94	Failure to report noncompliance within 24 hours
	Failure to submit a sludge management plan

**NOTE:** The sewer main from the treatment plant to the pond was broken and treated effluent was discharged into a trench. There was no discharge to waters of the state, and the line was repaired. The incident was not reported as required by permit.


A file review revealed that a written sludge management plan had not been submitted, although the method of sludge management was known and verbally approved by the Department. Sludge has been handled in a method approved by the Department in the past so there has been no environmental impact from the failure to submit a written plan. These violations were referred to the enforcement section with a recommendation of a civil penalty.

\*\*\*\*\*

State of Oregon  
Department of Environmental Quality

Memorandum

Date: September 19, 1994

To: Environmental Quality Commission  
From: Fred Hansen, Director   
Subject: Technical Advisory Committee Comments

A Technical Advisory Committee, appointed last year, has revised and amended the current on-site rules. Following the public comment period on the Committee's proposed rules, Department staff reviewed and responded to comments from both the public and from staff, and sent a revised rule packet to the Commission for consideration.

The Committee met on September 19, 1994, to review the revised rule packet that was sent to the Commission. The Committee is in substantial agreement with the revised rule packet, with some technical corrections, detailed in Attachment 1. Below is a summary of those recommended corrections:

<u>Rule</u>	<u>Page</u>	<u>Change</u>
71-100(32)	4	Replace "drainline" with "pipe."
71-100(35)	4	After "filter media," insert "disposal field sizing."
71-100(39)	4	After "natural soil," add "permeable saprolite, or diggable bedrock."
71-100(47)	5	Clarify the language for "drain media."
71-100(55)	6	Delete some of the language from the definition of "Equal Distribution."
71-100(77)	7	Delete "or 'heads'."
71-100(115)	11	Replace "should" with "shall."
71-130(2)	21	Drop references to Division 72.
71-130(20)(b)	24	Delete "design" from "design criteria."
71-140(1)(b)(A)(ii)(VII)	27	Delete holding tank fee from this section.
71-162(17)(a)	41	Delete 220(2); 290(4); Table 2, Table 4; and Table 5.
71-220(4)(a)(C)	59	Specify "looped" system.
71-275(4)(b)(A)	68	Change two inch to one inch.
71-275(5)(a)(C)	71	Change "head" to "flow."
71-290(7)(a)(A)	78	Change trench depths to ten (10) inches.
71-290(7)(a)(C)	78	Allow trenches on 3 foot centers.
71-290(7)(a)(G)	78	Delete this section.
71-290(7)(b)	78	Strengthen language to prevent downsizing lot size.
71-305(1)(b)	88	Add maintenance language for dosing septic tanks.
71-315(2)(e)	90	Change "filter material" to "drain media."
71-400(7)(a)(A)	110	Change "ten" to "eighty."
Division 73:		
73-040(2)	6	Change wording to require watertight connections.
73-060(1)	11	Change "two (2) inches" to "one and one quarter (1 1/4) inches."

Memo To: Environmental Quality Commission  
September 19, 1994  
Page 2

The Department agrees with the changes recommended by the Technical Advisory Committee.

Approved:

Section: Michael Brown

Division: Michael Brown

Report Prepared By: Charles K. Ashbaker

Phone: 985-7008

CKA:crw  
IW\WC12\WC12938.5  
21 SEPT 94

ATTACHMENT 1

The following rule language changes are proposed. The amended rule follows the originally proposed rule language.

Division 71

(32) [~~(27)~~] "Curtain Drain" means a groundwater interceptor that is installed as a trench with a minimum width of twelve (12) inches and extending into the layer that limits effective soil depth. It has a perforated drainline installed along the bottom of, and the length of the trench and has a minimum of twelve (12) inches of drain media over the drainline and filter fabric placed over the drain media. The curtain drain must meet the setbacks from septic tanks and disposal areas as required in Table 1.

NEW

(32) [~~(27)~~] "Curtain Drain" means a groundwater interceptor that is installed as a trench with a minimum width of twelve (12) inches and extending into the layer that limits effective soil depth. It has a perforated pipe installed along the bottom of, and the length of the trench and has a minimum of twelve (12) inches of drain media over the drainline and filter fabric placed over the drain media. The curtain drain must meet the setbacks from septic tanks and disposal areas as required in Table 1.

\*\*\*\*\*

(35) "Design Criteria" means the criteria used in designing on-site sewage disposal systems including, but not necessarily limited to, dimensions, geometry, type of materials, size of drain media or filter media, depth, grade or slope, hydraulic loading rate or any other factor relevant to the successful operation of the system. It does not include disposal area siting criteria.

NEW

(35) "Design Criteria" means the criteria used in designing on-site sewage disposal systems including, but not necessarily limited to, dimensions, geometry, type of materials, size of drain media or filter media, disposal field sizing, depth, grade or slope, hydraulic loading rate or any other factor relevant to the successful operation of the system. It does not include disposal area siting criteria.

\*\*\*\*\*

(39) [~~(33)~~] "Disposal Trench" means a ditch or a trench installed into natural soil, with vertical sides and substantially flat bottom with a minimum of twelve (12) inches of clean, coarse drain media [filter material] or other material that is used in these rules into which a single distribution pipe has been laid, the trench then being backfilled with a minimum of six (6) inches of soil. [~~See Diagram 12~~]

NEW

(39) [~~(33)~~] "Disposal Trench" means a ditch or a trench installed into natural soil, permeable saprolite or diggable bedrock, with vertical sides and substantially flat bottom with a minimum of twelve (12) inches of clean, coarse drain media [filter material] or other material that is used in these rules into which a single distribution pipe has been laid, the trench then being backfilled with a minimum of six (6) inches of soil. [~~See Diagram 12~~]

\*\*\*\*\*

(47) "Drain Media" means clean washed gravel, or clean crushed rock, for the purpose of distributing effluent. When gravel or crushed rock is used it shall have a minimum size of three quarters (3/4) inches and a maximum size of two and one-half (2-1/2) inches. The material shall be durable and inert so that it will maintain its integrity and not collapse or disintegrate with time and shall not be detrimental to the performance of the system.

NEW

(47) "Drain Media" means clean washed gravel, clean crushed rock, or other media approved by the Director's Designee, for the purpose of distributing effluent. When gravel or crushed rock is used it shall have a minimum size of three quarters (3/4) inches and a maximum size of two and one-half (2-1/2) inches. The material shall be durable and inert so that it will maintain its integrity and not collapse or disintegrate with time and shall not be detrimental to the performance of the system.

\*\*\*\*\*

(55) "Equal Distribution" means the distribution of effluent to a set of disposal trenches all of which are constructed at the same elevation in which each trench receives effluent in equivalent or proportional volumes from a Distribution Box or Hydrosplitter.

NEW

(55) "Equal Distribution" means the distribution of effluent to a set of disposal trenches in which each trench receives effluent in equivalent or proportional volumes.

\*\*\*\*\*

(77) "Hydrasplitter" means a hydraulic device to proportion flow under pressure by the use of one or more orifices or "heads". Also may be referred to as a Hydrosplitter.

NEW

(77) "Hydrasplitter" means a hydraulic device to proportion flow under pressure by the use of one or more orifices. Also may be referred to as a Hydrosplitter.

\*\*\*\*\*

(115) "Residential Strength Wastewater" means the primary sewage effluent from a septic tank which does not exceed the following parameters: Biochemical Oxygen Demand (BOD) of 300 mg/L; Total Suspended Solids (TSS) of 150 mg/L; Total Kjeldahl Nitrogen (TKN) of 150 mg/L; and Oil & Grease of 25 mg/L. Other contaminants may also be present in the wastewater, however, they should not exceed the concentrations or quantities normally found in residential sewage. Effluent parameters are to be measured using approved Standard Method or EPA procedures.

NEW

(115) "Residential Strength Wastewater" means the primary sewage effluent from a septic tank which does not exceed the following parameters: Biochemical Oxygen Demand (BOD) of 300 mg/L; Total Suspended Solids (TSS) of 150 mg/L; Total Kjeldahl Nitrogen (TKN) of 150 mg/L; and Oil & Grease of 25 mg/L. Other contaminants may also be present in the wastewater, however, they shall not exceed the concentrations or quantities normally found in residential sewage. Effluent parameters are to be measured using approved Standard Method or EPA procedures.

71-130 (2) Approved Disposal Required. All sewage shall be treated and disposed of in a manner approved by the Department. After review by the Technical Review Committee and by the Department, the Director may approve use of new or innovative technologies, materials, or designs that differ from those specified in OAR 340, Divisions 71, 72 and 73, if such technologies, materials or designs provide equivalent or better protection of the public health and safety and waters of the State and meet the purposes of Divisions 71, 72 and 73, including the purposes stated in 340-71-110. The Department may determine that the appropriate method of approving Alternative Systems is by rule amendment.

NEW

71-130(2) Approved Disposal Required. All sewage shall be treated and disposed of in a manner approved by the Department. After review by the Technical Review Committee and by the Department, the Director may approve use of new or innovative technologies, materials, or designs that differ from those specified in OAR 340, Divisions 71 and 73, if such technologies, materials or designs provide equivalent or better protection of the public health and safety and waters of the State and meet the purposes of Divisions 71 and 73, including the purposes stated in 340-71-110. The Department may determine that the appropriate method of approving Alternative Systems is by rule amendment.

\*\*\*\*\*

1-130(20) (b) For on-site systems which require a WPCF permit, the design criteria in this Division shall be used. However, the Department may allow variations of the design criteria and/or technologies, when the applicant or Department has adequate documentation of successful operation of that technology or design. The burden of proof for demonstrating new processes, treatment systems, and technologies that the Department is unfamiliar with, lies with the system designer. The Department shall review all plans and specifications for WPCF permits pursuant to procedures and requirements outlined in Division 52.

NEW

71-130(20) (b) For on-site systems which require a WPCF permit, the criteria in this Division shall be used. However, the Department may allow variations of the criteria and/or technologies, when the applicant or Department has adequate documentation of successful operation of that technology or design. The burden of proof for demonstrating new processes, treatment systems, and technologies that the Department is unfamiliar with, lies with the system designer. The Department shall review all plans and specifications for WPCF permits pursuant to procedures and requirements outlined in Division 52.



71-140(1)(b)(A)

(ii) Alternative System:

(I)	Aerobic System .....	\$	565
(II)	Capping Fill .....	\$	860
(III)	Cesspool .....	\$	565
(IV)	Disposal Trenches in Saproliite..	\$	565
(V)	Evapotranspiration-Absorption...	\$	565
(VI)	Gray Water Waste Disposal Sump..	\$	240
(VII)	Holding Tank .....	\$	565
(VIII)	Pressure Distribution .....	\$	860
(IX)	Redundant .....	\$	565
(X)	Sand Filter .....	\$	1,100
(XI)	Seepage Pit .....	\$	565
(XII)	Seepage Trench .....	\$	565
(XIII)	Steep Slope .....	\$	565
(XIV)	Tile Dewatering .....	\$	860

NEW

71-140(1)(b)(A)(ii) Alternative System:

(I)	Aerobic System .....	\$	565
(II)	Capping Fill .....	\$	860
(III)	Cesspool .....	\$	565
(IV)	Disposal Trenches in Saproliite..	\$	565
(V)	Evapotranspiration-Absorption...	\$	565
(VI)	Gray Water Waste Disposal Sump..	\$	240
<del>(VII)</del>	<del>Holding Tank .....</del>	<del>\$</del>	<del>565</del>
<u>(VII)</u>	<u><del>(VIII)</del></u> Pressure Distribution .....	<del>\$</del>	<del>860</del>
<u>(VIII)</u>	<u><del>(IX)</del></u> Redundant .....	<del>\$</del>	<del>565</del>
<u>(IX)</u>	<u><del>(X)</del></u> Sand Filter .....	<del>\$</del>	<del>1,100</del>
<u>(X)</u>	<u><del>(XI)</del></u> Seepage Pit .....	<del>\$</del>	<del>565</del>
<u>(XI)</u>	<u><del>(XII)</del></u> Seepage Trench .....	<del>\$</del>	<del>565</del>
<u>(XII)</u>	<u><del>(XIII)</del></u> Steep Slope .....	<del>\$</del>	<del>565</del>
<u>(XIII)</u>	<u><del>(XIV)</del></u> Tile Dewatering .....	<del>\$</del>	<del>860</del>

\*\*\*\*\*

71-162(17) Rules Which Do Not Apply to WPCF Applicants or Permittees.

(a) Because the permit review, issuance, and appeal procedures for WPCF permits are different from those of other on-site permits regulated by these rules, the following portions of Oregon Administrative Rules (OAR) Chapter 340, Divisions 71, do not apply to WPCF applicants or permittees: OAR 340-71-155; 160(6), (8), (9), and (10); 165(1); 170; 175; 185; 195; 200; 205; 210; 215(1), (2), (3); 220(2); 270; 275(4)(c)(A); 290(4); 295(1); 305; 320; 325; 330; 345; 360(2)(b)(B); 410; 415; 420; 425; 430; 435; 440; 445; Table 2; Table 4; and Table 5.

NEW

71-162(17) Rules Which Do Not Apply to WPCF Applicants or Permittees.

(a) Because the permit review, issuance, and appeal procedures for WPCF permits are different from those of other on-site permits regulated by these rules, the following portions of Oregon Administrative Rules (OAR) Chapter 340, Divisions 71, do not apply to WPCF applicants or permittees: OAR 340-71-155; 160(6), (8), (9), and (10); 165(1); 170; 175; 185; 195; 200; 205; 210; 215(1), (2), (3); 270; 275(4)(c)(A); 295(1); 305; 320; 325; 330; 345; 360(2)(b)(B); 410; 415; 420; 425; 430; 435; 440; 445.

71-220(4) (a) (C) To determine the total useable area of the soil absorption facility, the Agent shall take the sum of the lengths of the parallel disposal trenches plus the lengths of a maximum of two (2) disposal trenches intersecting the parallel trenches.

NEW

71-220(4) (a) (C) To determine the total useable area of a looped soil absorption facility, the Agent shall take the sum of the lengths of the parallel disposal trenches plus the lengths of a maximum of two (2) disposal trenches intersecting the parallel trenches.

\*\*\*\*\*

71-275(4) (b) (A) All pressure transport, manifold, lateral piping, and fittings shall meet or exceed the requirements for [Class ~~160~~] PVC 1120 pressure pipe as identified in ASTM Specification D2241. For pipe diameters of two inches or less, the minimum pressure rating shall be 200 pounds per square inch (psi); for diameters greater than two inches, the minimum pressure rating shall be 160 psi.

NEW

71-275(4) (b) (A) All pressure transport, manifold, lateral piping, and fittings shall meet or exceed the requirements for [Class ~~160~~] PVC 1120 pressure pipe as identified in ASTM Specification D2241. For pipe diameters of one inch or less, the minimum pressure rating shall be 200 pounds per square inch (psi); for diameters greater than one inch, the minimum pressure rating shall be 160 psi.

\*\*\*\*\*

71-275(5) (a) (C) There shall be a minimum head of five (5) feet at the remotest orifice and no more than a [~~fifteen (15)~~] ten (10) percent head variation between nearest and remotest orifice in an individual unit.

NEW

71-275(5) (a) (C) There shall be a minimum head of five (5) feet at the remotest orifice and no more than a [~~fifteen (15)~~] ten (10) percent [~~head~~] flow variation between nearest and remotest orifice in an individual unit.

\*\*\*\*\*

71-290 (7) "Graveless Absorption Method"

- (a) Following a sand filter, disposal trenches may be constructed without the use of drain media, to the following criteria:
- (A) twelve (12) inches wide by twelve (12) inches deep incorporating pressurized distribution and a chamber constructed of half sections of twelve (12) inch diameter plastic irrigation pipes (PIP);
  - (B) Trenches shall be level end to end and across their width;
  - (C) Trenches shall be installed on minimum 10 foot centers maintaining at least eight feet of undisturbed earth between parallel trenches;
  - (D) Piping shall be minimum one inch diameter PVC meeting all the requirements of these rules;
  - (E) Distribution piping shall be perforated with one eighth inch diameter orifices on maximum two foot centers at the twelve o'clock position. The hydraulic design shall provide at least two feet residual head at the distal orifice;
  - (F) The chambers shall be constructed of twelve inch PIP rated at 43 pounds per square inch meeting the appendix standards of ASTM D-2241. Each line shall be equipped with a minimum six inch diameter inspection port;
  - (G) The chambers shall be installed so as to prevent sinking into the soil at the base of the trench.
- (b) Except as noted in subsection (a) of this section, all other construction criteria, including disposal field sizing for sand filter systems, shall apply.
- (c) This disposal field option may be used wherever a standard or alternative type disposal trench is authorized by current rules for sand filter systems, except for Vertisols.

NEW

71-290 (7) "Graveless Absorption Method"

- (a) Following a sand filter, disposal trenches may be constructed without the use of drain media, to the following criteria:
- (A) Twelve (12) inches wide by ten (10) inches deep incorporating pressurized distribution and a chamber constructed of half sections of twelve (12) inch diameter plastic irrigation pipes (PIP);
  - (B) Trenches shall be level end to end and across their width;

- (C) At the discretion of the Agent, trenches may be installed on minimum three (3) foot centers maintaining at least two (2) feet of undisturbed earth between parallel trench sidewalls;
  - (D) Piping shall be minimum one inch diameter PVC meeting all the requirements of these rules;
  - (E) Distribution piping shall be perforated with one eighth inch diameter orifices on maximum two foot centers at the twelve o'clock position. The hydraulic design shall provide at least two feet residual head at the distal orifice; and
  - (F) The chambers shall be constructed of twelve inch PIP rated at 43 pounds per square inch meeting the appendix standards of ASTM D-2241. Each line shall be equipped with a minimum six inch diameter inspection port.
- (b) Except as noted in subsection (a) of this section, all other construction and siting criteria including but not limited to the disposal field sizing for sand filter systems in Rule 71-290 (4), and area to accommodate the installation of an initial and replacement absorption facility meeting standard trench separations in Rule 71-220 (7) (a) (D), shall apply. Plans verifying that a system could be installed on the parcel that will meet the requirements in Rules 71-290 (4) and 71-220 (7) (a) (D) and all other applicable rules, are required before approval of this method.
- (c) This disposal field option may be used wherever a standard or alternative type disposal trench is authorized by current rules for sand filter systems, except for Vertisols.

71-305(1) (b) [~~2~~] The owner of a sand filter system shall inspect the septic tank and other components of the system at least every three years for sludge accumulation, pump calibration and cleaning of the laterals. The septic tank shall be pumped when there is an accumulation of floating scum less than three (3) inches above the bottom of the outlet tee or an accumulation of sludge less than six (6) inches below the bottom of the outlet tee. [~~provide the Agent written verification that the system's septic tank has been pumped at least once each forty eight (48) months by a licensed sewage disposal service business. Service start date shall be assumed to be the date of issuance of the Certificate of Satisfactory Completion.~~] The owner shall provide the Agent certification of tank pumping within two (2) months of the date required for pumping. Pump calibration, cleaning of the laterals and other maintenance shall be completed as necessary.

NEW

71-305(1) (b) [~~2~~] The owner of a sand filter system shall inspect the septic tank and other components of the system at least every three years for sludge accumulation, pump calibration and cleaning of the laterals. The septic tank shall be pumped when there is an accumulation of floating scum less than three (3) inches above the bottom of the outlet tee or an accumulation of sludge less than six (6) inches below the bottom of the outlet tee. A dosing septic tank shall be pumped according to Manufacturers Specifications. [~~provide the Agent written verification that the system's septic tank has been pumped at least once each forty eight (48) months by a licensed sewage disposal service business. Service start date shall be assumed to be the date of issuance of the Certificate of Satisfactory Completion.~~] The owner shall provide the Agent certification of tank pumping within two (2) months of the date required for pumping. Pump calibration, cleaning of the laterals and other maintenance shall be completed as necessary.

\*\*\*\*\*

71-315(2) (e) Field collection drainage tile shall be enveloped in clean filter material to within thirty (30) inches of the soil surface in soils with permanent groundwater, or to within twelve (12) inches of the soil surface in soils with temporary groundwater. Filter material shall be covered with filter fabric, treated building paper or other nondegradable material approved by the Agent.

NEW

71-315(2) (e) Field collection drainage tile shall be enveloped in clean filter material to within thirty (30) inches of the soil surface in soils with permanent groundwater, or to within twelve (12) inches of the soil surface in soils with temporary groundwater. [~~Filter material~~] Drain media shall be covered with filter fabric, treated building paper or other nondegradable material approved by the Agent.

71-400(7) (a) (A) The property is eighty (80) acres or larger in size. The minimum parcel size considered under this rule is designated by the County, but in no event shall it be less than ten (80) acres.

NEW

71-400(7) (a) (A) The property is eighty (80) acres or larger in size. The minimum parcel size considered under this rule is designated by the County, but in no event shall it be less than eighty (80) acres.

\*\*\*\*\*

Division 73

73-040(2) Drop boxes shall be constructed of durable, watertight materials, resistant to deterioration, and be [~~watertight, and~~] designed to accommodate the necessary piping. [~~-(See Diagram 3 for detail.)~~] The top, walls, and bottom of concrete drop boxes shall be at least one and one-half (1 1/2) inches thick.

NEW

73-040(2) Drop boxes shall be constructed of durable, watertight materials, resistant to deterioration, and be [~~watertight, and~~] designed to accommodate watertight connections for the effluent sewer and/or header pipes. [~~the necessary piping.~~] [~~-(See Diagram 3 for detail.)~~] The top, walls, and bottom of concrete drop boxes shall be at least one and one-half (1 1/2) inches thick.

\*\*\*\*\*

73-060(1) Effluent Sewer Pipe:

The effluent sewer shall be constructed with materials in conformance to building sewer standards, as identified in the Oregon State Plumbing Laws and Administrative Rules. The effluent sewer pipe shall have a minimum diameter of three (3) inches. When the septic tank is fitted with an effluent filter, the minimum diameter of piping may be reduced to two (2) inches.

NEW


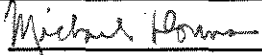


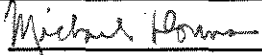


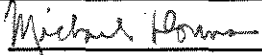

73-060(1) Effluent Sewer Pipe:

The effluent sewer shall be constructed with materials in conformance to building sewer standards, as identified in the Oregon State Plumbing Laws and Administrative Rules. The effluent sewer pipe shall have a minimum diameter of three (3) inches. When the septic tank is fitted with an effluent filter, the minimum diameter of piping may be reduced to one and one-quarter (1.25) inches.

# Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item B  
September 22, 1994 Meeting

<b>Title:</b> Adoption of On-Site Sewage Disposal Rule Amendments			
<b>Summary:</b> The proposed amendments will update and modify the current on-site sewage disposal rules. The current rules haven't been updated in a comprehensive manner for many years and are technically outdated in many areas and lacking implementation flexibility. To assist the Department in revising these rules a Technical Advisory Committee was appointed in June 1993. These rules largely represent the work of that advisory committee as it sought to make the rules technically current and to provide flexibility in their implementation.			
<b>Department Recommendation:</b> The Department recommends that the Commission adopt the proposed rule amendments.			
<table style="width: 100%; border: none;"><tr><td style="text-align: center; width: 33%;"> Report Author</td><td style="text-align: center; width: 33%;"> Division Administrator</td><td style="text-align: center; width: 33%;"> Director</td></tr></table>	 Report Author	 Division Administrator	 Director
 Report Author	 Division Administrator	 Director	


September 15, 1994

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

State of Oregon  
Department of Environmental Quality

Memorandum<sup>†</sup>

Date: September 14, 1994

To: Environmental Quality Commission  
From: Fred Hansen, Director   
Subject: Agenda Item B Adoption of On-Site Sewage Disposal Rule Amendments  
September 22, 1994, EQC Meeting

**Background**

On May 10, 1994, the Director authorized the Water Quality Division to proceed to a rulemaking hearing on proposed rules which would update and modify the current on-site sewage disposal rules.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on July 1, 1994. The Hearing Notice and informational materials, including a summary of the rule changes, were mailed to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action on July 22, 1994. Because of the size of the rule document (132 pages) it was not included in the general mailing. However, copies were made available to review at each of the DEQ field offices as well as contract county offices. Copies were also made available from the Northwest Regional Office and the Water Quality Division upon request

Public Hearings were held as follows:

DATE:	TIME:	LOCATION:
July 22, 1994	3 pm	Portland
July 25, 1994	3 pm	Pendleton
July 26, 1994	3 pm	Bend
July 27, 1994	5 pm	Medford
July 28, 1994	3 pm	Springfield

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



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Charles K. Ashbaker serving as Presiding Officer. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing.

Written comments were received through August 4, 1994. A list of those submitting written comments, along with a brief summary of the comments, is included as Attachment D. (A copy of the full text of the comments is available upon request.)

Department staff have evaluated the comments received (Attachment E). Based upon that evaluation, modifications to the initial rulemaking proposal are being recommended by the Department. These modifications are summarized below and detailed in Attachment F.

The following sections summarize the issue that this proposed rulemaking action is intended to address, the authority to address the issue, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

#### **Issue this Proposed Rulemaking Action is Intended to Address**

The on-site sewage disposal rules found in OAR Chapter 340, Divisions 71, 72, and 73 are quite out of date. In addition, they are very prescriptive and leave the Department with very little latitude and ability to utilize new technology. In addition, many of the alternative systems allowed by the rules require operation and maintenance in order to work properly. With the construction permit procedures in the rules, there is no good way for the Department to assure that the proper operation and maintenance will actually occur. Rules which affect the on-site program are scattered through several Divisions of Chapter 340. For example, surety bond requirements are found in Division 15, WPCF permitting procedures are found in Divisions 14 and 45, and certain plan review procedures are found in Division 52. Those rules pertaining to on-site disposal systems have been extracted from these other Divisions and put into Division 71, along with other on-site sewage disposal rules.

#### **Relationship to Federal and Adjacent State Rules**

Except for large on-site sewage disposal systems which the EPA has classified as Class V Wells under the Underground Injection Control Program, the federal government has

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no rules or permitting requirements. Therefore, Oregon is more stringent than the federal government in this program. Since this is a program over which the federal government has little regulatory authority, the proposed rule changes have no effect on current federal rules or programs. Please see Attachment F.

The proposed rule modifications have no impact on rules of adjacent states.

### **Authority to Address the Issue**

Under both ORS 454 and 468 the Commission has authority to adopt rules for on-site sewage disposal systems. In fact, ORS 454.615 mandates that the EQC adopt on-site disposal requirements and standards by rule. ORS 454.780 requires the Commission to adopt rules regulating recirculating sand filters. Those rules are included in this package.

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

The Director appointed a Technical Advisory Committee (TAC) to review the on-site sewage disposal rules and to make recommendations to the Commissions for changes. The first TAC meeting was June 23, 1993. The TAC met almost monthly for twelve months. In addition, two subcommittees were formed which met independently once or twice per month during the same time period. Arno Denecke was the original TAC Chair. After his death, Gail Achterman became the TAC Chair. The committee included agency staff, county staff, on-site consultants, and an on-site system installer. The members of the TAC are listed on Attachment G.

Each of the subcommittees would bring recommendations to the full committee. The Chair would try to achieve consensus on each issue before carrying it forward into a formal recommendation.

In addition, there have been a varied number of proposals which were submitted by equipment vendors, consultants, contract counties, and members of the TAC. For some of these, consensus could not be achieved and the proposals are not being proposed as rules. Only those rules which could receive a reasonable degree of consensus are brought forward at this time.

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**Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.**

A complete summary of the proposed changes to the on-site sewage disposal rules is attached as Attachment F. In short, there were many "housekeeping" changes proposed. In addition, there are many substantive issues proposed. Some of the substantive changes are as follows:

- (1) The rules expand the list of facilities which will require a renewable Water Pollution Control Facilities (WPCF) permit.
- (2) The rules establish the use of an on-going Technical Review Committee to assist the Department in evaluating new technology and program direction.
- (3) The rules give the Department more flexibility in waiving site evaluations and pre-cover inspections.
- (4) In order to have all applicable rules in one Division, portions of Divisions 14, 15, 45, and 52 have been extracted and put in Division 71.
- (5) Specific rules for construction of recirculating filters have been added as required by ORS 454.780.
- (6) The specifications for sand filters have been changed to make it possible to use sands which are more readily available.
- (7) All persons involved in the installation of on-site sewage disposal systems will be required to demonstrate their knowledge of on-site rules by passing an examination. This will be required every 5 years.
- (8) A mechanism has been established for approval of materials alternative to standard aggregate for disposal trenches.
- (9) The septic tank specifications found in Division 73 have been upgraded to require risers and effluent filters. Also larger tanks will be required for larger homes.

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### **Summary of Significant Public Comment and Changes Proposed in Response**

Several commented on the proposal to require a larger septic tank for homes with more than 3 bedrooms. The Department has reconsidered that proposal and has abandoned that proposal.

Several commented on the proposal to require effluent filters on septic tanks. The Department has re-evaluated that proposal and has eliminated the requirement for effluent filter for single family residences. Only commercial facilities will be required to have the effluent filters.

Several commented on the requirement to install risers from the septic tank to the surface of the ground. Some were for it and some were against it. The Department has retained the requirement in the rules. However, the size of the riser was changed to accommodate the design of some existing tanks.

Many commented on the requirement for on-site sewage disposal licensees to pass an examination prior to getting licensed. Most were in favor of the proposal. However, they requested that mandatory attendance at a training session would be more appropriate than the examination. The Department has added to the rules the option of training session attendance as an alternative to the examination.

Some commented on the added number of facilities which would require WPCF permits. They were concerned about the long and expensive permitting process. The Department is also concerned and intends to issue several "general" permits for these facilities in order to reduce the permitting time and cost. The implementation date for the rules has been postponed in order for the Department to have time to issue those general permits.

Several objected to the water tightness test required of septic tanks after installation. Because of the importance of septic tank integrity, the water tightness test will remain in the rule. However, where there are site limitations which would preclude a test, the Agent may waive the requirement.

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

The on-site sewage disposal program is an on-going program implemented by the Department and its agents (local governments). Those persons involved in the program will be informed of the changes. Installers will have until July 1, 1995, to pass the test or attend a Department approved class in order to become licensed at that time. Most of the rule changes will not become effective until April 1, 1995, in order for general permits to be issued and design changes to be implemented.

It will be necessary to re-negotiate agreements with the contract counties. Some, if not all, will act as our agents in distributing the general permit so that the program can carry on without delay. The Department will also schedule a training program to travel throughout the state to train DEQ staff, contract county staff, and those installing on-site sewage disposal systems in the implementation of the rules.

The privatization proposal (71-120(4)) allows the Department to enter into agreements with private contractors to do technical work that would be subject to review by the Agent (Department (DEQ) or local government). The Department of Justice advises that DEQ cannot transfer discretionary actions to private contractors unless subject to government review and approval. Staff concludes that the technical work by private contractors could include such items as field reports, construction plans, and precover inspections. Other technical activities may be allowed. However, all private contractors' activities that could result in a discretionary action, would then be subject to government review for a final decision. For example, the Agent must be responsible for the issuing of a site evaluation report that will approve or deny the use of on-site sewage disposal, although a private contractor's technical site description can be utilized by the Agent in reaching the decision. This would follow also for the issuance or denial of permits, and issuance or denial of a Satisfactory Completion Notice. Any other activities that may result in an approval or denial or approval with conditions, must be kept with the Agent.

The proposal (71-130(2)) would give the Department greater latitude in approving new technologies or materials. However, according to the Department of Justice, this is a tool that cannot be used on a broad basis. Specifically, the proposed rule cannot be utilized to allow the Director to change standards or to set new standards outside of the rulemaking process.

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The above proposals allow increased flexibility in these rules. Flexibility has been addressed in other sections as noted below. This list is not meant to be all inclusive;

71-160 allows the Agent to waive an evaluation report for a repair or alteration permit application. This same section also allows the use of a septic tank to be used as a temporary holding tank if the entire system cannot be completed due to weather.

71-170 allows the Agent to waive a precover inspection for any system after following specific criteria. The present rules allow this waiver only for standard systems.

71-175 has increased the validity of a Certificate of Satisfactory Completion from one year to five years. This change may allow connection to a system without obtaining an Authorization Notice for an additional 4 years from the present rule. This time period has also been reflected in the Authorization rule, (71-205).

71-210 will allow some alterations to be approved where a septic tank may not meet present setback requirements. The present rule requires a variance application, hearing and approval to allow this minor setback change.

71-290 has added site criteria for allowing a sand filter system on slopes up to 45 percent. The present rule prohibits installation of a sand filter system on slopes over 30 percent.

71-290 has added a graveless disposal method. This may allow remote sites to be developed at a lower cost since gravel would not have to be transported long distances.

71-400 (6) has been modified to allow a permit to be issued east of the Cascades with less restrictive standards for properties of 10 acres or larger. The present rule requires a minimum of 20 acres.

71-400 (7) is a new section that will allow sites east of the Cascades and meeting specific criteria, to have the site evaluation waived. This section will also allow for a precover inspection waiver on these sites.

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New copies of the rules will be printed and sent to those persons implementing the program.

### **Recommendation for Commission Action**

It is recommended that the Commission adopt the rules/rule amendments regarding the on-site sewage disposal program as presented in Attachment A of the Department Staff Report.

### **Attachments**

- A. Rule (Amendments) Proposed for Adoption
- B. Supporting Procedural Documentation:
  - 1. Legal Notice of Hearing
  - 2. Public Notice of Hearing (Chance to Comment)
  - 3. Rulemaking Statements (Statement of Need)
  - 4. Fiscal and Economic Impact Statement
  - 5. Land Use Evaluation Statement
  - 6. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements
- C. Presiding Officer's Report on Public Hearing
- D. List of Written Comments Received
- E. Department's Evaluation of Public Comment
- F. Detailed Changes to Original Rulemaking Proposal made in Response to Public Comment
- G. Advisory Committee Membership and Report
- H. Rule Implementation Plan
- I. (Other Attachments as appropriate)

Memo To: Environmental Quality Commission  
Agenda Item B  
September 22, 1994 meeting  
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**Reference Documents (available upon request)**

Written Comments Received (listed in Attachment D)  
(Other Documents supporting rule development process or proposal)

Approved:

Section: \_\_\_\_\_

Division: Michael Houns

Report Prepared By: Charles K. Ashbaker 

Phone: 985-7008

Date Prepared: September 14, 1994

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DRAFT RULE MODIFICATIONS  
FOR  
DIVISIONS 14, 45, 52, 71, AND 73,

ATTACHMENT A

Note: The underlined portion of text represent proposed additions made to the rules.

The [~~bracketed~~] portion of text represents proposed deletions to the rules.

#### DIVISION 14

#### PROCEDURES FOR ISSUANCE, DENIAL, MODIFICATION, AND REVOCATION OF PERMITS

##### PURPOSE

340-14-005

The purpose of this Division is to prescribe uniform procedures for obtaining permits from the Department of Environmental Quality as prescribed by ORS 459.205, 468A.045 and 468B.050.

##### EXCEPTIONS

340-14-007

The procedures prescribed in this Division do not apply to the issuance, denial, modification and revocation of the following permits: National Pollutant [~~Pollution~~] Discharge Elimination System (NPDES) permits issued pursuant to the Federal Water Pollution Control Act Amendments of 1972 and acts amendatory thereof or supplemental thereto, as prescribed by OAR Chapter 340, Division 45; Resource Conservation and Recovery Act (RCRA) permits as prescribed by OAR Chapter 340, Division 106; On-site Sewage Disposal Permits as prescribed by OAR Chapter 340 Division 71, and the Underground Storage Tank (UST) permits as prescribed by OAR Chapter 340, Division 150.

##### DEFINITIONS

340-14-010 (no changes proposed)

##### TYPE, DURATION, AND TERMINATION OF PERMITS

340-14-015 (no changes proposed)

##### APPLICATION FOR A PERMIT

340-14-020 (no changes proposed)

##### ISSUANCE OF A PERMIT

340-14-025 (no changes proposed)

##### RENEWAL OF A PERMIT

340-14-030 (no changes proposed)

##### DENIAL OF A PERMIT

340-14-035 (no changes proposed)

MODIFICATION OF A PERMIT

340-14-040 (no changes proposed)

SUSPENSION OR REVOCATION OF A PERMIT

340-14-045 (no changes proposed)

SPECIAL PERMITS

340-14-050 (no changes proposed)

IMPLEMENTATION DATE

340-14-055

These rules become effective April 1, 1995. Until these rules become effective, existing rules remain in effect. Nothing in this Section is intended to prevent the Department from taking any action necessary to prepare for implementing the new rule.

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

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

#### DIVISION 45

#### REGULATIONS PERTAINING TO NPDES AND WPCF PERMITS

#### PURPOSE

340-45-005 (no changes proposed)

#### DEFINITIONS

340-45-010

As used in these rules unless otherwise required by context.

- (1) "Commission" means the Environmental Quality Commission.
- (2) "Department" means Department of Environmental Quality.
- (3) "Director" means the Director of the Department of Environmental Quality.
- (4) "Discharge or Disposal" means the placement of wastes into public waters, on land or otherwise into the environment in a manner that does or may tend to affect the quality of public waters.
- (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 on-site sewage disposal systems regulated through the requirements of OAR 340-71-160, 71-162, and ORS 454.655, and systems which recirculate without discharge.
- (6) "Federal Act" means Public Law 92-500, known as the Federal Water Pollution Control Act Amendments of 1972 and acts amendatory thereof or supplemental thereto.
- (7) "General Permit" means a permit issued to a category of qualifying sources pursuant to OAR 340-45-033, in lieu of individual permits being issued to each source.
- (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.
- (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 340-45-005 through 340-45-065.
- (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.

- (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.
- (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.
- (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.
- (14) "Pretreatment" 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.
- (15) "Process Wastewater" means waste water contaminated by industrial processes but not including non-contact cooling water or storm runoff.
- (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.
- (17) "Regional Administrator" means the Regional Administrator of Region X of the U.S. Environmental Protection Agency.
- (18) "Septage" means the liquid and solid material pumped from a septic tank, holding tank, cesspool, or similar domestic sewage treatment system.
- (19) "Septage Alkaline Stabilization Facility" means a facility which actively mixes alkaline material with raw septage to increase and maintain pH at 12 in the resultant mixture for sufficient time to achieve chemical stabilization.
- (20) "Sewage" means the water-carried human or animal waste from residences, building, industrial establishments, or other places, together with such groundwater infiltration and surface water as may be present. The mixture of sewage as above defined with wastes or industrial wastes, as defined in sections (8) and (23) of this rule, shall also be considered "sewage" within the meaning of these rules.
- (21) "Sewerage System" means pipelines or conduits, pumping stations, and force mains, and all other structures, devices, appurtenances, and facilities used for collecting or conducting wastes to an ultimate point for treatment or disposal.
- (22) "State" means the State of Oregon.

- (23) "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.
- (24) "Treatment" or "Waste Treatment" means the alteration of the quality of wastewaters 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.
- (25) "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.
- (26) "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 340-14-005 through 340-14-050 or OAR 340-71-162.

**PERMIT REQUIRED**

340-45-015 (no changes proposed)

**NON-PERMITTED DISCHARGES**

340-45-020 (no changes proposed)

**PROCEDURES FOR OBTAINING WPCF PERMITS**

340-45-025

Except for the procedures for application for and issuance of NPDES permits on point sources to navigable waters of the United States, and on-site sewage disposal permits issued pursuant to OAR Chapter 340 Division 71, submission and processing of applications for WPCF permits and issuance, renewal, denial, transfer, modification, and suspension or revocation of WPCF permits shall be in accordance with the procedures set forth in OAR Chapter 340, rules 340-14-005 through 340-14-050.

**APPLICATION FOR NPDES PERMIT**

340-45-030 (no changes proposed)

**GENERAL PERMITS**

340-45-033 (no changes proposed)

**ISSUANCE OF NPDES PERMITS**

340-45-035 (no changes proposed)

**RENEWAL OR MODIFICATION OF NPDES PERMITS**

340-45-040 (no changes proposed)

**TRANSFER OF AN NPDES PERMIT**

340-45-045 (no changes proposed)

**DENIAL OF AN NPDES PERMIT**

340-45-050 (no changes proposed)

**DEPARTMENT INITIATED MODIFICATION OF A NPDES PERMIT**

340-45-055 (no changes proposed)

**SUSPENSION OR REVOCATION OF A NPDES PERMIT**

340-45-060 (no changes proposed)

**STIPULATED CONSENT ORDERS**

340-45-062 (no changes proposed)

**INDUSTRIAL WASTE PRETREATMENT**

340-45-063 (no changes proposed)

**OTHER REQUIREMENTS**

340-45-065 (no changes proposed)

**PERMIT FEES**

340-45-070

- (1) [~~Beginning July 1, 1976,~~] A[a]ll persons required to have a Water Pollution Control Facilities Permit or NPDES Waste Discharge Permit shall be subject to a three-part fee consisting of a uniform non-refundable filing fee, an application processing fee, and an annual compliance determination fee which are obtained from OAR 340-45-075. The amount equal to the filing fee, application processing fee, and the first year's annual compliance determination fee shall be submitted as a required part of any application for a new NPDES or WPCF permit. The amount equal to the filing fee and application processing fee, if applicable, shall be submitted as a required part of any application for renewal or modification of a NPDES or WPCF permit.
- (2) The annual compliance determination fee, as listed in OAR 340-45-075(4), must be paid for each year a disposal system is in operation or during which a discharge to public waters occurs. The fee period shall correspond with the state's fiscal year (July 1 through June 30) and shall be paid annually during the month of July. Any annual compliance determination fee submitted as part of an application for a new NPDES or WPCF permit shall apply to the fiscal year the permitted facility is put into operation. For the first year's operation, the full fee shall apply if the facility is placed into operation on or before May 1. Any new facility placed into operation after May 1 shall not owe a compliance determination fee until the following July. The

Director may alter the due date for the annual compliance determination fee upon receipt of a justifiable request from a permittee. The Commission may reduce or suspend the annual compliance determination fee in the event of a proven hardship.

- (3) Modifications of existing, unexpired permits which are instituted by the Department due to changing conditions or standards, receipts of additional information or any other reason pursuant to applicable statutes and do not require refiling or review of an application or plans and specifications shall not require submission of the filing fee or the application processing fee.
- (4) Upon the Department accepting an application for filing, the filing fee shall be non-refundable.
- (5) The application processing fee may be refunded in whole or in part when submitted with an application if either of the following conditions exist:
  - (a) The Department determines that no permit will be required;
  - (b) The Department determines that the wrong application has been filed.
- (6) All fees shall be made payable to the Department of Environmental Quality.
- (7) The fee schedule for on-site sewage disposal systems is found in OAR Chapter 340, Division 71.

#### PERMIT FEE SCHEDULE

340-45-075 (no changes proposed)

#### IMPLEMENTATION DATE

340-45-080

These rules become effective April 1, 1995. Until these rules become effective, existing rules remain in effect. Nothing in this Section is intended to prevent the Department from taking any action necessary to prepare for implementing the new rules.



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

The [~~bracketed~~] portions of text represent that text proposed to be deleted.

## DIVISION 52

### REVIEW OF PLANS AND SPECIFICATIONS

#### PURPOSE

340-52-005

The purpose of these rules is to prescribe requirements and procedures to obtain approval of plans and specifications as required by ORS 468B.055 [~~468.742~~] for the construction, installation or modification of disposal systems, treatment works and sewerage systems.

#### DEFINITIONS

340-52-010

As used in these rules unless otherwise required by context:

- (1) "Common Sewer" is a collecting sewer, and a part of the sewerage system which either initially or ultimately will serve two or more tax lots, parcels, or ownerships which may or may not be owned or controlled by a municipality either initially or ultimately. Exception: It does not include for purposes of these rules common sewers within a Unit Ownership (Condominium) Development described in ORS 100.005 to 100.990 [~~91.500 to 91.671 and 91.990~~].
- (2) "Department" means the Department of Environmental Quality.
- (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 authorized to be constructed by a construction-  
installation permit issued pursuant to OAR Chapter 340 Division 71  
[of 5,000 gallons per day or less], industrial and agricultural waste systems, treatment works, disposal wells and other systems. (ORS 468B.005(1) [~~468.700(1)~~])
- (4) "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. (ORS 468B.005(2) [~~468.700(2)~~])
- (5) "Municipality" means any county, city, special service district or other governmental entity having authority to dispose of or treat or collect sewage, industrial wastes or other wastes, or any combination of two or more of the foregoing acting jointly. (ORS 454.010(3))
- (6) "Permit" means a National Pollutant Discharge Elimination System (NPDES) permit or a Water Pollution Control Facilities (WPCF) permit as defined in OAR 340-45-010.
- (7) "Person" means the United States and any agencies thereof, any individual public or private corporation, political subdivision, governmental agency, municipality, copartnership, association, firm, trust, estate, or any other legal entity whatever.
- (8) "Pretreatment system" means a system for giving partial treatment to industrial wastes prior to being discharged to a domestic sewerage system for further treatment and ultimate disposal.

- (9) "Sewage" means the water-carried human or animal waste from residences, buildings, industrial establishments, or other places together with such groundwater infiltration and surface water as may be present. The admixture with sewage of wastes or industrial wastes shall also be considered "sewage". (ORS 468B.005(4) [~~468.700(4)~~])
- (10) "Sewerage System" means pipelines or conduits, pumping stations, and force mains, and all other structures, devices, appurtenances and facilities used for collecting or conducting wastes to an ultimate point for treatment or disposal. (ORS 468B.005(5) [~~468.700(5)~~]) Generally limited to "common sewers".
- (11) "Treatment Works" means any plant or other works used for the purpose of treating, stabilizing or holding wastes, including pretreatment systems.
- (12) "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. (ORS 468B.005(7) [~~468.700(7)~~])

#### SUBMITTAL OF PLANS

340-52-015 (no changes proposed)

#### PERFORMANCE REQUIREMENTS AND GUIDELINES FOR TECHNICAL REVIEW

340-52-020 (no changes proposed)

#### APPROVAL OF PLANS

340-52-025 (no changes proposed)

#### MEANING OF APPROVAL

340-52-030 (no changes proposed)

#### REJECTION OF PLANS

340-52-035 (no changes proposed)

#### RESPONSIBILITY OF TREATMENT WORKS OWNERS, DESIGN ENGINEERS AND DEVELOPERS AFTER APPROVAL OF PLANS FOR (DOMESTIC) SEWAGE PROJECTS

340-52-040

- (1) Construction of all projects must be in accordance with the project plans and specifications approved by the Department. No substantial change in or deviation from such plans and specifications shall be made without the prior written approval of the Department, which shall make the final determination whether or not a change or deviation is in fact substantial.
- (2) The owner of the sewerage system (generally a municipality) as recipient of any construction work on its system has a vested responsibility to review and approve project plans prior to the start of construction. Department approval of plans under these rules does not preclude the right and responsibility of review and approval by the owner. The owner may adopt more stringent

construction standards and impose special conditions for sewer use, service connection, and related activities. Department approval of plans in such cases is contingent upon similar approval by the owner. Submittal of plans to the Department through the owner and prior approval of plans by the owner is encouraged.

- (3) Inspection and certification of proper construction shall be governed by the following provisions:
- (a) The construction of all sewerage projects shall be under the supervision of and shall be thoroughly inspected by the design engineer or his authorized representative, unless relieved under OAR 340-52-040 [035](3)(b). At the completion of the project he shall certify in writing to the owner and the Department that such construction was inspected by him and found to be in accordance with the plans and specifications, including any changes therein approved by the Department. Nothing in the foregoing exempts an owner from monitoring the project for conformance to requirements and performing supplementary inspections or prevents an owner's qualified staff from assuming responsibility for inspection and certification;
  - (b) If the design engineer is to have no further involvement or have limited involvement with the project after obtaining Department approval of plans, he must so notify the Department, the owner, and the developer upon submittal of plans or immediately upon being disassociated or limited in control over materials or workmanship within the project. (Nothing precludes either the owner or the developer from giving such notice if this is more appropriate.) Thereupon, if the project is to continue on to construction, the owner shall assume necessary responsibility for satisfactory construction of the project in accordance with the approved plans. He shall employ or apply such construction engineering/inspection services as appropriate for the project. The owner shall thereupon certify in accordance with subsection (a) of this section. No project shall proceed to construction without adequate and capable construction engineering/inspection services. (This assumption of construction engineering/inspection services responsibility by the owner does not necessarily relieve the design engineer of design responsibility.)
  - (c) Sewerage system integrity and water-tightness is the system owner's ultimate responsibility. He shall monitor all private sewer construction and control all common sewer construction in the sewerage system to the extent necessary to this end.
- (4) An appropriate final operation and maintenance manual, approved by the Department shall be prepared and submitted to the owner by the design engineer for all treatment works, disposal systems, and list stations prior to start up of such facilities.

**EXEMPTION FROM PLAN SUBMITTAL TO THE DEPARTMENT**

340-52-045 (no changes proposed)

**TREATMENT WORKS AND SEWERAGE SYSTEMS UTILIZING NEW OR UNPROVEN TECHNOLOGY**

340-52-050 (no changes proposed)

Note: The underlined portion of text represent proposed additions to the rules. The ~~bracketed~~ portion of text represents proposed deletions to the rules.

OREGON ADMINISTRATIVE RULES FOR  
ON-SITE SEWAGE DISPOSAL  
CHAPTER 340, DIVISION 71

~~[REPEAL OF PRIOR RULES]~~

~~Rules pertaining to Subsurface Sewage and Alternative Disposal contained in OAR 340 71 005 thru 71 045, OAR 340 72 005 thru 72 030, OAR 340 74 004 thru 74 025 and OAR 340 75 010 thru 75 060 are repealed effective upon filing with the Secretary of State of the rules which follow (OAR 71 100 thru 71 600, 72 050 thru 72 080, and 73 025 thru 73 085).~~

TABLES ~~[, DIAGRAMS]~~ AND APPENDICES

All tables ~~[, diagrams]~~ and appendices referred to in the text of Division 71 may be found in numerical order following the text of these rules.

INDIVIDUAL ON-SITE SYSTEMS

340-71-100 DEFINITIONS.

As used in OAR 340, Divisions 71, 72, and 73, unless otherwise specified:

- (1) "Absorption Facility" means a system of open-jointed or perforated piping, alternative distribution units, or other seepage systems for receiving the flow from septic tanks or other treatment facilities and designed to distribute effluent for oxidation and absorption by the soil within the zone of aeration. ~~[(See Diagrams 1 through 7 and 14 through 17)]~~
- (2) "Active Sand Dune" means wind drifted ridges and intervening valleys, pockets, and swales of sand adjacent to the beach. The sand is grayish-brown (color value of four (4) or more), with little or no horizon, color, or textured differences. Active dunes are either bare of vegetation or lack sufficient vegetation to prevent blowing of sand.
- (3) "Aerobic Sewage Treatment Facility" means a sewage treatment plant which incorporates a means of introducing air and oxygen into the sewage so as to provide aerobic biochemical stabilization during a detention period. Aerobic sewage treatment facilities may include anaerobic processes as part of the treatment system. Mechanical Oxidation Sewage Treatment Facility means an aerobic treatment facility.
- (4) "Aerobic System" means an alternative system consisting of a septic tank or other treatment facility, an aerobic sewage treatment facility and an absorption facility, designed to provide a level of treatment before disposal.
- (5) ~~[(4)]~~ "Agent" means the Director or that person's authorized representative.
- (6) ~~[(5)]~~ "Alteration" means expansion and/or change in location of an existing system, or any part thereof.
- (7) ~~[(6)]~~ "Alternative System" means any Commission approved on-site sewage disposal system identified within OAR 340, Division 71, for use ~~[used]~~ in lieu of the standard subsurface system.

- (8) "Approved Material" means construction items that have been reviewed and accepted for use by the Department.
- (9) "Approved Criteria" means methods of design or construction that has been reviewed by the Technical Review Committee (TRC) and accepted for use by the Department.
- (10) "ASTM" means American Society of Testing Materials.
- (11) [~~(7)~~] "Authorization Notice" means a written document issued by the Agent which establishes that an existing on-site sewage disposal system appears adequate to serve the purpose for which a particular application is made.
- (12) [~~(9)~~] "Authorized Representative" means the staff of the Department of Environmental Quality or staff of the local governmental unit performing duties for and under agreement with the Department of Environmental Quality.
- (13) [~~(9)~~] "Automatic Siphon" means a hydraulic device designed to rapidly discharge the contents of a dosing tank between predetermined water or sewage levels.
- (14) [~~(10)~~] "Bedroom" means any room within a dwelling which is accepted as such by the State of Oregon Department of Commerce building codes representative or the local authorized building official having jurisdiction.
- (15) "Biochemical Oxygen Demand (BOD)" means a measure of the decomposable organic matter in wastewater. It is used as an indication of wastewater strength. For the purpose of these rules, all references to BOD shall be for the five day BOD.
- (16) [~~(11)~~] "Black Waste" means human body wastes including feces, urine, other extraneous substances of body origin and toilet paper.
- [~~(12)~~] ~~"Building Sewer" means that part of the system of drainage piping which conveys sewage into a septic tank, cesspool or other treatment facility that begins five feet (5) outside the building or structure within which the sewage originates. (See Diagrams 1, 2, 3, and 16).]~~
- (17) "Capping Fill System" means an alternative system where the disposal trench effective sidewall is installed a minimum of twelve (12) inches into the natural soil below a soil cap of specified depth and texture.
- (18) [~~(13)~~] "Cesspool" means a lined pit which receives raw sewage, allows separation of solids and liquids, retains the solids and allows liquids to seep into the surrounding soil through perforations in the lining. [~~(See Diagram 16)~~]
- (19) [~~(14)~~] "Chemical Recirculating Toilet Facility" means a toilet facility wherein black wastes are deposited and carried from the bowl by a combination of liquid waste and water which has been chemically treated and filtered.

- (20) [~~(15)~~] **"Chemical Toilet Facility"** means a non-flushing, non-recirculating toilet facility wherein black wastes are deposited directly into a chamber containing a solution of water and chemical.
- (21) [~~(16)~~] **"Clayey Soil"** means mineral soil that is over forty (40) percent clay that shrinks and develops wide cracks when dry and swells and shears when wet forming slickensides and wedge-shaped structure. Clayey soil is very hard or extremely hard when dry, very firm when moist, and very sticky and very plastic when wet.
- (22) [~~(17)~~] **"Claypan"** means a dense, compact clay layer in the subsoil. It has a much higher clay content than the overlying soil horizon from which it is separated by an abrupt boundary. Claypans are hard when dry and very sticky and very plastic when wet. They impede movement of water and air and growth of plant roots.
- (23) [~~(18)~~] **"Combustion Toilet Facility"** means a toilet facility wherein black wastes are deposited directly into a combination chamber for incineration.
- (24) [~~(19)~~] **"Commercial Facility"** means any structure or building, or any portion thereof, other than a single-family dwelling.
- (25) [~~(20)~~] **"Commission"** means the Environmental Quality Commission.
- (26) [~~(21)~~] **"Community System"** means an on-site system which will serve more than one (1) lot or parcel or more than one (1) condominium unit or more than one (1) unit of a planned unit development.
- (27) [~~(22)~~] **"Completed Application"** means one in which the application form is completed in full, is signed by the owner or that person's authorized representative, and is accompanied by all required exhibits and required fee.
- (28) [~~(23)~~] **"Conditions Associated With Saturation"** means:
- (a) Reddish brown or brown soil horizons with gray (chromas of two (2) or less) and red or yellowish red mottles; or
  - (b) Gray soil horizons, or gray soil horizons with red, yellowish red, or brown mottles; or
  - (c) Dark colored highly organic soil horizons; or
  - (d) Soil profiles with concentrations of soluble salt at or near the ground surface.
- (29) [~~(24)~~] **"Confining Layer"** means a layer associated with an aquifer that because of its low permeability does not allow water to move through it perceptibly under head differences occurring in the groundwater system.
- (30) [~~(25)~~] **"Construction"** includes installation of a new system or part thereof, or the alteration, repair or extension of an existing system. The grading, excavating, and earth-moving work connected with installation, alteration, or repair of a system, or part thereof, is considered a part of system construction.

- (31) ~~(26)~~ "Conventional Sand Filter" means a filter with two (2) feet or more of medium sand designed to chemically ~~[filter]~~ and biologically process ~~[treat]~~ septic tank effluent from a pressure distribution system operated on an intermittent basis. ~~[at an application rate not to exceed one and twenty three hundredths (1.23) gallons per square foot sand surface area per day applied at a dose not to exceed twenty (20) percent of the projected daily sewage flow per cycle.]~~
- (32) ~~(27)~~ "Curtain Drain" means a groundwater interceptor that is installed as a trench with a minimum width of twelve (12) inches and extending into the layer that limits effective soil depth. It has a perforated drainline installed along the bottom of, and the length of the trench and has a minimum of twelve (12) inches of drain media over the drainline and filter fabric placed over the drain media. The curtain drain must meet the setbacks from septic tanks and disposal areas as required in Table 1.
- (33) ~~(28)~~ "Cut-Manmade" means a land surface resulting from mechanical land shaping operations where the modified slope is greater than fifty (50) percent, and the depth of cut exceeds thirty (30) inches.
- (34) ~~(29)~~ "Department" means the Department of Environmental Quality.
- (35) "Design Criteria" means the criteria used in designing on-site sewage disposal systems including, but not necessarily limited to, dimensions, geometry, type of materials, size of drain media or filter media, depth, grade or slope, hydraulic loading rate or any other factor relevant to the successful operation of the system. It does not include disposal area siting criteria.
- (36) ~~(30)~~ "Director" means the Director of the Department of Environmental Quality.
- (37) ~~(31)~~ "Disposal Area" means the entire area used for underground dispersion of the liquid portion of sewage including the area designated for the future replacement system. It may consist of a seepage pit or of a disposal field or of a combination of the two. It may also consist of a cesspool, seepage bed, bottomless sand filter, or evapotranspiration-absorption system.
- (38) ~~(32)~~ "Disposal Field" means a system of disposal trenches or a seepage trench or system of seepage trenches.
- (39) ~~(33)~~ "Disposal Trench" means a ditch or a trench installed into natural soil, with vertical sides and substantially flat bottom with a minimum of twelve (12) inches of clean, coarse drain media ~~[filter material]~~ or other material that is used in these rules into which a single distribution pipe has been laid, the trench then being backfilled with a minimum of six (6) inches of soil. ~~[(See Diagram 12)]~~
- (40) ~~(34)~~ "Distribution Box" means a watertight structure which receives septic tank or other treatment facility effluent and distributes it concurrently into two (2) or more header pipes leading to the disposal area. (See rule 340-73-035.)
- (41) ~~(35)~~ "Distribution Pipe" means an open-jointed or perforated pipe used in the dispersion of septic tank or other treatment facility effluent into disposal trenches, seepage trenches, or seepage beds. ~~[(See Diagrams 1 through 7 and 11)]~~

- (42) [~~36~~] "Distribution Unit" means a distribution box, dosing tank, diversion valve or box, header pipe, or other means of transmitting septic tank or other treatment unit effluent from the effluent sewer to the distribution pipes. [~~See Diagrams 1 through 7 and 11~~]
- (43) [~~37~~] "Diversion Valve" means a watertight structure which receives septic tank or other treatment facility effluent through one (1) inlet, distributes it to two (2) outlets, only one (1) of which is utilized at a given time (See [~~Diagram 11 and~~] rule 340-73-045.)
- (44) [~~38~~] "Dosing Tank" means a watertight receptacle placed after a septic tank or other treatment facility equipped with an automatic siphon or pump. [~~designed to discharge treated effluent at a rate not to exceed twenty (20) percent of the projected daily sewage flow.~~]
- (45) [~~39~~] "Dosing Septic Tank" means a unitized device performing functions of both a septic tank and a dosing tank.
- (46) "Drainfield" means a Disposal Field.
- (47) "Drain Media" means clean washed gravel, or clean crushed rock, for the purpose of distributing effluent. When gravel or crushed rock is used it shall have a minimum size of three quarters (3/4) inches and a maximum size of two and one-half (2-1/2) inches. The material shall be durable and inert so that it will maintain its integrity and not collapse or disintegrate with time and shall not be detrimental to the performance of the system.
- (48) [~~40~~] "Dwelling" means any structure or building, or any portion thereof which is used, intended, or designed to be occupied for human living purposes including, but not limited to: houses, houseboats, boathouses, mobile homes, travel trailers, hotels, motels, and apartments.
- (49) [~~41~~] "Effective Seepage Area" means the sidewall area within a disposal trench or a seepage trench from the bottom of the trench to a level two (2) inches above the distribution pipes, or the sidewall area of any cesspool, seepage pit, unsealed earth pit privy, or gray water waste disposal sump seepage chamber; or the bottom area of a pressurized soil absorption facility installed in soil as defined in section [~~114~~] (139) this rule. [~~See Diagrams 12, 14, 15, 16, and 17~~]
- (50) [~~42~~] "Effective Soil Depth" means the depth of soil material above a layer that impedes movement of water, air, and growth of plant roots. Layers that differ from overlying soil material enough to limit effective soil depth are hardpans, claypans, fragipans, compacted soil, bedrock, saprolite, and clayey soil.
- (51) "Effluent Filter" means an effluent treatment device installed on the outlet of a septic tank which is designed to prevent the passage of suspended matter larger than one eighth inch in size.
- (52) [~~43~~] "Effluent Lift Pump" means a pump used to lift septic tank or other treatment facility effluent to a higher elevation. (See rule 340-73-055)
- (53) [~~44~~] "Effluent Sewer" means that part of the system of drainage piping that conveys partially treated sewage from a septic tank or other treatment facility into a distribution unit or an absorption facility. (See [~~Diagrams 1 through 7, 11, and 17, and~~] Rule 340-73-060)



- (54) ~~[(45)]~~ **"Emergency Repair"** means repair of a failing system where immediate action is necessary to relieve a situation in which sewage is backing up into a dwelling or building, or repair of a broken pressure sewer pipe. It does not include the construction of new or additional absorption facilities, but would allow use of the septic tank as a temporary holding tank until such time as new or additional absorption facilities could be constructed pursuant to an issued permit.
- (55) **"Equal Distribution"** means the distribution of effluent to a set of disposal trenches all of which are constructed at the same elevation in which each trench receives effluent in equivalent or proportional volumes from a Distribution Box or Hydrosplitter.
- (56) ~~[(46)]~~ **"Escarpment"** means any naturally occurring slope greater than fifty (50) percent which extends vertically six (6) feet or more as measured from toe to top, and which is characterized by a long cliff or steep slope which separates two (2) or more comparatively level or gently sloping surfaces, and may intercept one (1) or more layers that limit effective soil depth. ~~[(See Diagrams 18 and 19)]~~
- (57) ~~[(47)]~~ **"Evapotranspiration-Absorption (ETA) System"** means an alternative system consisting of a septic tank or other treatment facility, effluent sewer and a disposal bed or disposal trenches, designed to distribute effluent for evaporation, transpiration by plants, and by absorption into the underlying soil. ~~[(See Diagrams 6 and 7)]~~
- (58) ~~[(48)]~~ **"Existing On-Site Sewage Disposal System"** means any installed on-site sewage disposal system constructed in conformance with the rules, laws and local ordinances in effect at the time of construction, or which would have conformed substantially with system design provided for in Commission, State Board of Health or State Health Division rules.
- (59) ~~[(49)]~~ **"Existing System"** means "Existing On-Site Sewage Disposal System".
- (60) ~~[(50)]~~ **"Failing System"** means any system which discharges untreated or incompletely treated sewage or septic tank effluent directly or indirectly onto the ground surface or into public waters.
- (61) ~~[(51)]~~ **"Family Member"** means any one (1) of two (2) or more persons related by blood or ~~[marriage-]~~ legally.
- (62) ~~[(52)]~~ **"Filter Fabric"** means a woven or spun-bonded sheet material used to impede or prevent the movement of sand, silt and clay into drain media ~~[filter material]~~. A specification for filter fabric is found in OAR 340-73-041.
- ~~[(53)]~~ **"Filter Material"** means clean, washed gravel ranging from three quarters (3/4) to two and one half (2 1/2) inches in size, or clean crushed rock ranging in size from one and one half (1 1/2) to two and one half (2 1/2) inches. ~~(See Diagrams 6, 7, 9, 12, 14, 15, 16, and 17)]~~
- (63) ~~[(54)]~~ **"Five-Day Biochemical Oxygen Demand"** (BOD<sub>5</sub>) means the quantity of oxygen used in the biochemical oxidation of organic matter in five days at twenty (20) degrees centigrade under specified conditions and reported as milligrams per liter (mg/L).

- (64) ~~(+55)~~ "Fragipan" means a loamy subsurface horizon with high bulk density relative to the horizon above, seemingly cemented when dry, and weakly to moderately brittle when moist. Fragipans are mottled and low in organic matter. They impede movement of water, air, and growth of plant roots.
- (65) "General Permit" means a permit issued to a category of qualifying sources pursuant to rule 340-45-033, in lieu of individual permits being issued to each source.
- (66) ~~(+56)~~ "Governmental Unit" means the state or any county, municipality, or political subdivision, or any agency thereof.
- (67) ~~(+57)~~ "Grade" means the rate of fall or drop in inches per foot or percentage of fall of a pipe.
- (68) ~~(+58)~~ "Gray Water" means household sewage other than "black wastes", such as bath water, kitchen waste water and laundry wastes.
- (69) "Gray Water Waste Disposal Sump" means a receptacle or series of receptacles designed to receive hand-carried gray water for disposal into the soil.
- (70) "Grease and Oils" means a component of sewage typically originating from food stuffs, consisting of compounds of alcohol or glycerol with fatty acids.
- (71) ~~(+59)~~ "Groundwater Interceptor" means any natural or artificial groundwater or surface water drainage system including agricultural drain tile, cut banks, and ditches which intercept and divert groundwater or surface water from the area of the absorption facility. [~~(See Diagram 13)~~]
- (72) ~~(+60)~~ "Hardpan" means a hardened layer in soil caused by cementation of soil particles with either silica, calcium carbonate, magnesium carbonate, or iron and/or organic matter. The hardness does not change appreciably with changes in moisture content. Hardpans impede movement of water and air and growth of plant roots.
- (73) ~~(+61)~~ "Header Pipe" means a tight jointed part of the sewage drainage conduit which receives septic tank effluent from the distribution box, or drop box, or effluent sewer and conveys it to the disposal area. [~~(See Diagrams 1 through 5, 7, 11, and 17)~~]
- (74) ~~(+62)~~ "Headwall" means a steep slope at the head or upper end of a land slump block or unstable landform. [~~(See Diagrams 22 and 23)~~]
- (75) ~~(+63)~~ "Holding Tank" means a watertight receptacle designed to receive and store sewage to facilitate disposal at another location.
- (76) "Holding Tank System" means an alternative system consisting the combination of a holding tank, service riser and level indicator (alarm), designed to receive and store sewage for intermittent removal for disposal at another location.
- (77) "Hydrasplitter" means a hydraulic device to proportion flow under pressure by the use of one or more orifices or "heads". Also may be referred to as a Hydrosplitter.
- (78) ~~(+64)~~ "Incinerator Toilet Facility" means "Combustion Toilet Facility".
- (79) ~~(+65)~~ "Individual System" means a system that is not a community system.

- (80) [~~66~~] **"Individual Water Supply"** means a source of water and a distribution system which serves a residence or user for the purpose of supplying water for drinking, culinary, or household uses and which is not a public water supply system.
- (81) [~~67~~] **"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.
- (82) **"Intermittent Sand Filter" means a conventional sand filter.**
- (83) [~~68~~] **"Intermittent Stream"** means any surface public water or groundwater interceptor that continuously flows water for a period of greater than two months in any one year, but not continuously for that year.
- (84) [~~69~~] **"Invert"** is the lowest portion of the internal cross section of a pipe or fitting. [~~See Diagram 12~~]
- (85) [~~70~~] **"Large System"** means any on-site system with a projected daily sewage flow greater than two thousand five hundred (2,500) gallons.
- (86) [~~71~~] **"Lateral Pipe"** means "Distribution Pipe".
- (87) [~~72~~] **"Mechanical [~~Oxidation~~] Sewage Treatment Facility"** means an aerobic sewage treatment facility.
- (88) [~~73~~] **"Medium Sand"** means a mixture of sand with 100 percent passing the 3/8 inch sieve, 95 [~~90~~] percent to 100 percent passing the No. 4 sieve, 80 [~~62~~] percent to 100 percent passing the No. 8 [~~10~~] sieve, 45 percent to 85 [~~82~~] percent passing the No. 16 sieve, 15 [~~25~~] percent to 60 [~~55~~] percent passing the No. 30 sieve, 3 [~~5~~] percent to 15 [~~20~~] percent passing the No. 50 sieve, [~~10 percent or less passing the No. 60 sieve,~~] and 4 percent or less passing the No. 100 sieve.
- (89) [~~74~~] **"Nonwater-Carried Waste Disposal Facility"** means any toilet facility which has no direct water connection, including pit privies, vault privies and portable toilets.
- (90) [~~75~~] **"Occupant"** means any person living or sleeping in a dwelling.
- (91) [~~76~~] **"On-Site Sewage Disposal System"** means any existing or proposed on-site sewage disposal system including, but not limited to a standard subsurface, alternative, experimental or non-water carried sewage disposal system, installed or proposed to be installed on land of the owner of the system or on other land as to which the owner of the system has the legal right to install the system. This does not include systems that are designed to treat and dispose of Industrial Waste as defined in OAR Division 45.
- (92) **"Operating Permit" means a WPCF permit issued pursuant to these rules.**

(93) [~~(77)~~] **"Owner"** means any person who alone, or jointly, or severally with others:

- (a) Has legal title to any single lot, dwelling, dwelling unit, or commercial facility; or
- (b) Has care, charge, or control of any real property as agent, executor, executrix, administrator, administratrix, trustee, commercial lessee, or guardian of the estate of the holder of legal title; or
- (c) Is the contract purchaser of real property.

**NOTE:** Each such person as described in subsections (b) and (c), thus representing the legal title holder, is bound to comply with the provisions of these rules as if he were the legal title holder.

(94) [~~(78)~~] **"Permanent Groundwater Table"** means the upper surface of a saturated zone that exists year-round. The thickness of the saturated zone, and, as a result, the elevation of the permanent groundwater table may fluctuate as much as twenty (20) feet or more annually; but the saturated zone and associated permanent groundwater table will be present at some depth beneath land surface throughout the year.

(95) [~~(79)~~] **"Permit"** means the written document issued and signed by the Agent which authorizes the permittee to install a system or any part thereof, which may also require operation and maintenance of the system.

(96) [~~(80)~~] **"Person"** includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.

(97) [~~(81)~~] **"Pollution"** or **"Water Pollution"** means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.

(98) **"Portable Toilet" means any self contained chemical toilet facility that is housed within a portable toilet shelter and includes but is not limited to construction type chemical toilets.**

(99) [~~(82)~~] **"Portable Toilet Shelter"** means any readily relocatable structure built to house a toilet facility.

(100) [~~(83)~~] **"Pressure Distribution Lateral"** means piping and fittings in pressure distribution systems which distribute septic tank or other treatment unit effluent to drain media [~~filter material~~] through small diameter orifices. [~~(See Diagrams 8, 9, and 12)~~]

(101) [~~(84)~~] **"Pressure Distribution Manifold"** means piping and fittings in a pressure distribution system which supply effluent from pressure transport piping to pressure distribution laterals. [~~(See Diagrams 8 and 9)~~]

- (102) [~~85~~] "Pressure Distribution System" means any system designed to uniformly distribute septic tank or other treatment unit effluent under pressure in an absorption facility or sand filter. [~~See Diagrams 8 and 9~~]
- (103) [~~86~~] "Pressure Transport Piping" means piping which conveys sewage effluent from a septic tank or other treatment unit or distribution unit by means of a pump or siphon. [~~See Diagrams 8 and 9~~]
- (104) "Pretreatment" means the wastewater treatment which takes place prior to discharging to any component of an on-site sewage treatment and disposal system, including but not limited to, pH adjustment, oil and grease removal, BOD, and TSS reduction, screening and detoxification.
- (105) [~~87~~] "Prior Approval" means a written approval for on-site sewage disposal, for a specific lot, issued prior to January 1, 1974.
- (106) [~~88~~] "Prior Construction Permit" means a subsurface sewage disposal system construction permit issued prior to January 1, 1974, by a county that had an ordinance requiring construction permits for subsurface sewage disposal systems.
- (107) [~~89~~] "Privy" means a structure used for disposal of human waste without the aid of water. It consists of a shelter built above a pit or vault in the ground into which human waste falls.
- (108) "Projected Daily Sewage Flow" means the peak quantity of sewage a facility is forecast to produce on a daily basis upon which system sizing and design is based. It may be referred to as design flow. The Projected Daily Sewage Flow allows for a safety margin and reserve capacity for the system during periods of heavy use.
- (109) [~~90~~] "Public Health Hazard" means a condition whereby there are sufficient types and amounts of biological, chemical or physical, including radiological, agents relating to water or sewage which are likely to cause human illness, disorders or disability. These include, but are not limited to, pathogenic viruses, bacteria, parasites, toxic chemicals, and radioactive isotopes.
- (110) [~~91~~] "Public Waters" means 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.
- (111) "Recirculating Gravel Filter (RGF)" means a type of gravel filter wastewater treatment system which utilizes an effluent recycle system where a portion of the filtered effluent is mixed with septic tank effluent in a recirculation/dilution tank and redistributed to the filter, in conformance with these rules.
- (112) "Recirculating Gravel Filter System" means a Recirculating Gravel Filter and a absorption facility used to treat and dispose of sewage.
- (113) [~~92~~] "Redundant Disposal Field System" means a system in which two complete disposal systems are installed, the disposal trenches of each system alternate with each other and only one system operates at a given time. [~~See Diagram 11~~]

- (114) ~~[(+93)]~~ **"Repair"** means installation of all portions of a system necessary to eliminate a public health hazard or pollution of public waters created by a failing system. Major repair is defined as the replacement of the soil absorption system. Minor repair is defined as the replacement of a septic tank, broken pipe, or any part of the on-site sewage disposal system except the soil absorption system.
- (115) **"Residential Strength Wastewater"** means the primary sewage effluent from a septic tank which does not exceed the following parameters: Biochemical Oxygen Demand (BOD) of 300 mg/L; Total Suspended Solids (TSS) of 150 mg/L; Total Kjeldahl Nitrogen (TKN) of 150 mg/L; and Oil & Grease of 25 mg/L. Other contaminants may also be present in the wastewater, however, they should not exceed the concentrations or quantities normally found in residential sewage. Effluent parameters are to be measured using approved Standard Method or EPA procedures.
- (116) **"Sand Filter Media"** means a medium sand or other Approved Material used in a conventional sand filter. The media shall be durable and inert so that it will maintain its integrity and not collapse or disintegrate with time and shall not be detrimental to the performance of the system.
- (117) ~~[(+94)]~~ **"Sand Filter Surface Area"** means the area of the level plane section in the medium sand horizon of a conventional sand filter located two (2) feet below the bottom of the drain media ~~[filter material]~~ containing the pressurized distribution piping.
- (118) ~~[(+95)]~~ **"Sand Filter System"** means the combination of septic tank or other treatment unit, dosing system with effluent pump and controls, or dosing siphon, piping and fittings, sand filter, and absorption facility used to treat and dispose of sewage.
- (119) ~~[(+96)]~~ **"Sanitary Drainage System"** means that part of the system of drainage piping that conveys untreated sewage from a building or structure to a septic tank or other treatment facility, service lateral at the curb or in the street or alley, or other disposal terminal holding human or domestic sewage. The sanitary drainage system consists of a building drain or building drain and building sewer. ~~[(See Diagrams 1, 2, 3, and 16)]~~
- (120) ~~[(+97)]~~ **"Saprolite"** means weathered material underlying the soil that grades from soft thoroughly decomposed rock to rock that has been weathered sufficiently so that it can be broken in the hands or cut with a knife. It does not include hard bedrock or hard fractured bedrock. It has rock structure instead of soil structure.
- (121) ~~[(+98)]~~ **"Saturated Zone"** means a three (3) dimensional layer, lens, or other section of the subsurface in which all open spaces including joints, fractures, interstitial voids, pores, etc. 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 or discharge. ~~[(See Diagram 20)]~~
- (122) ~~[(+99)]~~ **"Scum"** means a mass of sewage solids floating at the surface of sewage which is buoyed up by entrained gas, grease, or other substances.
- (123) ~~[(+100)]~~ **"Seepage Area"** means "Effective Seepage Area".
- (124) ~~[(+101)]~~ **"Seepage Bed"** means an absorption system having disposal trenches wider than three (3) feet.

- (125) [~~(102)~~] **"Seepage Pit"** means a "cesspool" which has a treatment facility such as a septic tank ahead of it. [~~(See Diagram 17)~~]
- (126) [~~(103)~~] **"Seepage Trench System"** means a system with disposal trenches with more than six (6) inches of drain media [~~filter material~~] below the distribution pipe.
- (127) [~~(104)~~] **"Self-Contained Nonwater-Carried Waste Disposal Facility"** includes, but is not limited to, vault privies, chemical toilets, combustion toilets, recirculating toilets, and portable toilets, in which all waste is contained in a watertight receptacle.
- (128) **"Septage"** means the domestic liquid and solid sewage pumped from septic tanks, cesspools, holding tanks, vault toilets, chemical toilets or other similar domestic sewage treatment components or systems and other sewage sludge not derived at sewage treatment plants.
- (129) [~~(105)~~] **"Septic Tank"** means a watertight receptacle which receives sewage from a sanitary drainage system, is designed to separate solids from liquids, digest organic matter during a period of detention, and allow the liquids to discharge to a second treatment unit or to a soil absorption facility. (See rules 340-73-025 and 340-73-030.)
- (130) [~~(106)~~] **"Septic Tank Effluent"** means partially treated sewage which is discharged from a septic tank.
- (131) **"Serial Distribution"** means the distribution of effluent to a set of disposal trenches constructed at different elevations in which one (1) trench at a time receives effluent in consecutive order beginning with the uppermost trench, by means of a Drop Box, a serial overflow or other approved distribution unit. The effluent in an individual trench must reach a level of two (2) inches above the distribution pipe before effluent is distributed to the next lower trench.
- (132) [~~(107)~~] **"Sewage"** means water-carried human and animal wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration, surface waters, or industrial waste as may be present.
- (133) [~~(108)~~] **"Sewage Disposal Service"** means:
- (a) The construction of on-site sewage disposal systems (including the placement of portable toilets), or any part thereof; or
  - (b) The pumping out or cleaning of on-site sewage disposal systems (including portable toilets), or any part thereof; or
  - (c) The disposal of material derived from the pumping out or cleaning of on-site sewage disposal systems (including portable toilets); or
  - (d) Grading, excavating, and earth-moving work connected with the operations described in subsection (a) of this section, [~~except streets, highways, dams, airports or other heavy construction projects and except earth moving work performed under the supervision of a builder or contractor in connection with and at the time of the construction of a building or structure; or~~]

~~[(e) The construction of drain and sewage lines from five (5) feet outside a building or structure to the service lateral at the curb or in the street or alley or other disposal terminal holding human or domestic sewage.]~~

**(134)** ~~[(109)]~~ "Sewage Stabilization Pond" means a pond designed to receive the raw sewage flow from a dwelling or other building and retain that flow for treatment without discharge.

**(135)** ~~[(110)]~~ "Slope" means the rate of fall or drop in feet per one hundred (100) feet of the ground surface. It is expressed as percent of grade.

**(136)** ~~[(111)]~~ "Soil Permeability Rating" refers to that quality of the soil that enables it to transmit water or air, as outlined in the United States Department of Agriculture Handbook, Number 18, entitled Soil Survey Manual.

**(137)** ~~[(112)]~~ "Soil Separate" means the size of soil particles according to Table 7.

**(138)** ~~[(113)]~~ "Soil Texture" means the amount of each soil separate in a soil mixture. Field methods for judging the texture of a soil consist of forming a cast of soil, both dry and moist, in the hand and pressing a ball of moist soil between thumb and finger.

(a) The major textural classifications are defined as follows:  
(See Table 6)

(A) **Sand:** Individual grains can be seen and felt readily. Squeezed in the hand when dry, this soil will fall apart when the pressure is released. Squeezed when moist, it will form a cast that will hold its shape when the pressure is released, but will crumble when touched.

(B) **Loamy Sand:** Consists primarily of sand, but has enough silt and clay to make it somewhat cohesive. The individual sand grains can readily be seen and felt. Squeezed when dry, the soil will form a cast which will readily fall apart, but if squeezed when moist, a cast can be formed that will withstand careful handling without breaking.

(C) ~~[(D)]~~ **Sandy loam:** Consists largely of sand, but has enough silt and clay present to give it a small amount of stability. Individual sand grains can be readily seen and felt. Squeezed in the hand when dry, this soil will readily fall apart when the pressure is released. Squeezed when moist, it forms a cast that will not only hold its shape when the pressure is released, but will withstand careful handling without breaking. The stability of the moist cast differentiates this soil from sand.

(D) ~~[(E)]~~ **Loam:** Consists of an even mixture of the different sizes of sand and of silt and clay. It is easily crumbled when dry and has a slightly gritty, yet fairly smooth feel. It is slightly plastic. Squeezed in the hand when dry, it will form a cast that will withstand careful handling. The cast formed of moist soil can be handled freely without breaking.



**(E) [~~(D)~~]** **Silt loam:** Consists of a moderate amount of fine grades of sand, a small amount of clay, and a large quantity of silt particles. Lumps in a dry, undisturbed state appear quite cloddy, but they can be pulverized readily; the soil then feels soft and floury. When wet, silt loam runs together in puddles. Either dry or moist, casts can be handled freely without breaking. When a ball of moist soil is passing between thumb and finger, it will not press out into a smooth, unbroken ribbon, but will have a broken appearance.

**(F) [~~(E)~~]** **Clay loam:** Consists of an even mixture of sand, silt, and clay, which breaks into clods or lumps when dry. When a ball of moist soil is pressed between the thumb and finger, it will form a thin ribbon that will readily break, barely sustaining its own weight. The moist soil is plastic and will form a cast that will withstand considerable handling.

**(G) [~~(F)~~]** **Silty clay loam:** Consists of a moderate amount of clay, a large amount of silt, and a small amount of sand. It breaks into moderately hard clods or lumps when dry. When moist, a thin ribbon or one-eighth (1/8) inch wire can be formed between thumb and finger that will sustain its weight and will withstand gentle movement.

**(H) [~~(G)~~]** **Silty clay:** Consists of even amounts of silt and clay and very small amounts of sand. It breaks into hard clods or lumps when dry. When moist, a thin ribbon or one-eighth (1/8) inch or less sized wire formed between thumb and finger will withstand considerable movement and deformation.

**(I) [~~(H)~~]** **Clay:** Consists of large amounts of clay and moderate to small amounts of sand. It breaks into very hard clods or lumps when dry. When moist, a thin, long ribbon or one-sixteenth (1/16) inch wire can be molded with ease. Fingerprints will show on the soil, and a dull to bright polish is made on the soil by a shovel.

- (b) These and other soil textural characteristics are also defined as shown in the United States Department of Agriculture Textural Classification Chart which is hereby adopted as part of these rules. This textural classification chart is based on the Standard Pipette Analysis as defined in the United States Department of Agriculture, Soil Conservation Service Soil Survey Investigations Report No. 1. (See Table 6)

**(139) [~~(114)~~]** "Soil With Rapid or Very Rapid Permeability" means:

- (a) Soil which contains thirty-five (35) percent or more of coarse fragments two (2) millimeters in diameter or larger by volume with interstitial soil of sandy loam texture or coarser as defined in subsection [~~(113)~~] **(138)**(a) of this rule and as classified in Soil Textural Classification Chart, Table 6; or
- (b) Coarse textured soil (loamy sand or sand as defined in section **(138)** [~~(113)~~] of this rule and as classified in Soil Textural Classification Chart, Table 6); or

- (c) Stones, cobbles, gravel, and rock fragments with too little soil material to fill interstices larger than one (1) millimeter in diameter.

- (140) "Split Waste Method" means a procedure where "black waste" sewage and "gray water" sewage from the same dwelling or building are disposed of by separate systems.
- (141) [(115)] "Stabilized Dune" means a sand dune that is similar to an active dune except vegetative growth is dense enough to prevent blowing of sand. The surface horizon is either covered by a mat of decomposed and partially decomposed leaves, needles, roots, twigs, moss, etc., or to a depth of at least six (6) inches contains roots and has a color value of three (3) or less.
- (142) [(116)] "Standard Subsurface System" means an on-site sewage disposal system consisting of a septic tank, distribution unit and absorption facility constructed in accordance with OAR 340-71-220[(42)], using six (6) inches of drain media [~~filter material~~] below the distribution pipe, and maintaining not less than eight (8) feet of undisturbed earth between disposal trenches.
- (143) "Steep Slope System" means a seepage trench system installed on slopes greater than thirty (30) percent and less than or equal to forty-five (45) percent, pursuant to these rules.
- ~~[(117)] "Strength of Wastewater" means the concentration of pollutants in wastewater as measured by BOD<sub>5</sub> and TSS.~~
- (144) [(118)] "Subsurface Sewage Disposal" means the physical, chemical or bacteriological breakdown and aerobic treatment of sewage in the unsaturated zone of the soil above any temporarily perched groundwater body.
- (145) [(119)] "Subsurface Disposal System" means a cesspool or the combination of a septic tank or other treatment unit and effluent sewer and absorption facility. [~~See Diagrams 1, through 6, 11, 16, and 17~~]
- (146) "Surface Waters" means public waters, but excludes underground waters and wells.
- (147) [(120)] "System" means "On-Site Sewage Disposal System."
- (148) [(121)] "Temporary Groundwater Table" means the upper surface of a saturated zone that exists only on a seasonal or periodic basis. Like a permanent groundwater table, the elevation of a temporary groundwater table may fluctuate. However, a temporary groundwater table and associated saturated zone will dissipate (dry up) for a period of time each year.
- (149) [(122)] "Test Pit" means an open pit dug to sufficient size and depth to permit thorough examination of the soil to evaluate its suitability for subsurface sewage disposal.
- (150) "Tile Dewatering System" means an alternative system in which the absorption facility is encompassed with field collection drainage tile, the purpose of which is to reduce and control a groundwater table to create a zone of aeration below the bottom of the absorption facility.
- (151) [(123)] "Toilet Facility" means a fixture housed within a toilet room or shelter for the purpose of receiving black waste.

- (152) "Total Kjeldahl Nitrogen (TKN)" means the combination of ammonia and organic nitrogen but does not include nitrate and nitrite nitrogen.
- (153) [~~(124)~~] "Total Suspended Solids" (TSS) means solids in sewage that can be removed readily by standard filtering procedures in a laboratory and reported as milligrams per liter (mg/L).
- (154) "Treatment" means the alteration of the quality of wastewaters by physical, chemical or biological means or combination thereof such that tendency of said wastes to cause degradation in water quality, risk to public health or degradation of environmental conditions is reduced.
- (155) "Underdrain Media" means that material placed under the sand filter media in a sand filter. It shall be clean, washed pea gravel with 100 percent passing the 1/2 inch sieve, 18 to 100% passing the 1/4 inch sieve, 5 to 75% passing the No. 4 sieve, 24% or less passing the No. 10 sieve, 2% or less passing the No. 16 sieve, and 1% or less passing the No. 100 sieve.
- (156) [~~(125)~~] "Unstable Landforms" means areas showing evidence of mass downslope movement such as debris flow, landslides, rockfall, and hummock hill slopes with undrained depressions upslope. Unstable landforms may exhibit slip surfaces roughly parallel to the hillside; landslide scars and curving debris ridges; fences, trees, and telephone poles which appear tilted; or tree trunks which bend uniformly as they enter the ground. Active sand dunes are unstable landforms. [~~(See Diagrams 21, 22, and 23)~~]
- (157) "Vertisols" means a mineral soil characterized by a high content of swelling-type clays which in dry seasons, causes the soils to develop deep wide cracks.
- [~~(126)~~ "Water Pollution" means "Pollution"].
- (158) "WPCF Permit" means a Water Pollution Control Facilities Permit which has been issued pursuant to OAR Chapter 340 Division 14 and Rule 162 of this Division.
- (159) "Wastewater" means Sewage.
- (160) [~~(127)~~] "Zone of Aeration" means the unsaturated zone that occurs below the ground surface and above the point at which the upper limit of the water table exists. [~~(See Diagram 20)~~]

**340-71-110 PURPOSE.**

These rules, adopted pursuant to ORS 454.625 and ORS 468.020, prescribe the requirements for the construction, alteration, repair, operation, and maintenance of on-site sewage disposal systems. Their purpose is to restore and maintain the quality of public waters and to protect the public health and general welfare of the people of the State of Oregon.

340-71-115 TECHNICAL REVIEW COMMITTEE

The Director shall form an on-site sewage disposal Technical Review Committee (TRC) to assist the Department in implementing the on-site sewage program.

- (1) Purpose. The purpose of the TRC shall be:
  - (a) To advise and assist the Department in implementing the on-site sewage program, including rule implementation problems and the need for changes in the program and rules;
  - (b) To review and advise the Department on the use of new or innovative technologies, materials or designs that maintain or advance protection of the quality of public waters of the State and the public health and general welfare. The TRC may utilize performance standards and criteria as appropriate to evaluate the efficiency and safety of new technologies, materials or designs.
- (2) Committee Composition and Term. The TRC shall consist of nine (9) persons who shall be appointed by and serve at the pleasure of the Director. They shall be appointed for three (3) year staggered terms. The TRC may include on-site sewage disposal experts from local government, DEQ, equipment manufacturers, consultants, installers and pumpers, and other appropriate persons or groups.
- (3) Meeting Frequency. The TRC shall meet as necessary, but at least two times per year. The Department shall reimburse members for reasonable expenses in accordance with Department policy.
- (4) Chair. The Chair of the TRC shall be appointed by the Director for a term determined by the Director.
- (5) Staffing. The Department shall provide the necessary technical, engineering and clerical staff and services in order for the TRC to fulfill its responsibilities in a timely, professional, informed and responsible manner.
- (6) Effective Date. This rule shall take effect upon filing with the Secretary of State.

340-71-120 JURISDICTION AND POLICY.

- (1) ~~[Prior to July 1, 1981, unless otherwise required within these rules, county agreements with the Department under ORS 454.725 shall be renegotiated to]~~ Oregon Revised Statutes (ORS) 454.725 authorizes the Department to enter into agreements with local governmental units for those units to perform the duties of the Department and become the Department's Agent in the permitting of on-site sewage disposal systems, including ~~[provide for county responsibility for]~~ receiving and processing applications, issuing permits and performing required inspections for all on-site systems. The Department shall assume those responsibilities in nonagreement counties. The division of responsibilities ~~[, by projected daily sewage flow,]~~ is set forth as follows:
- (a) Systems conforming with the treatment and disposal criteria described in OAR 340, Division 71, and which are not required to have a WPCF Permit ~~[of twenty five hundred (2,500) gallons or less]~~ shall have site evaluations, plan reviews, permits and inspections conducted or processed by the Agent, unless otherwise ~~[required]~~ allowed within ~~[these rules]~~ this Division. ~~[Plan review may be done by the Department at Agent's request.]~~
- (b) ~~[Systems of twenty five hundred and one (2501) gallons to five thousand (5000) gallons shall have site evaluations, plan review, permits and inspections conducted or processed by the Department. Site valuations, permit issuance and inspections may be delegated to the Agent.]~~ All systems required to have a WPCF Permit shall be regulated by the Department. Sections 130(15) and (16) of this Division describes those systems which must be constructed and operated by WPCF Permit. The WPCF permitting process is described in Rule 162 of this Division. The Department may issue General Permits for some of the categories requiring WPCF Permits. The Department may, through intergovernmental agreements, delegate to the Agent site evaluations, construction inspections, receipt of registration applications and distribution of the Department's General Permit, and periodic compliance inspections. Although the Agent may solicit voluntary compliance with the Department's General Permit, ultimate enforcement responsibility shall remain with the Department. The agreement shall establish a level of compensation to be paid for the services provided.
- ~~[(c) Systems of five thousand and one (5001) gallons or larger shall have site evaluations, plan review, permits and inspection conducted or processed by the Department. The permit shall be a Water Pollution Control Facilities (WPCF) permit. For systems of this size, periodic inspections may be delegated to the Agent.]~~
- (2) Each and every owner of real property is jointly and severally responsible for:
- (a) Disposing of sewage on that property in conformance with the rules of the Department; ~~[this Division,]~~ and
- (b) Connecting all plumbing fixtures on that property, from which sewage is or may be discharged, to a sewerage facility or on-site sewage disposal system approved by the Department; and
- (c) Maintaining, repairing, and/or replacing the system as necessary to assure proper operation of the system.

(3) Agreement counties may, by ordinance, adopt requirements for operation and maintenance of systems within that county. Such requirements must be approved by the Director.

~~[(4) The Commission may, by rule impose operation and maintenance requirements on specified types and/or sizes of systems.]~~

(4) The Department may, on its own or through agreements with local governments, conduct a pilot program (not to exceed two (2) years), utilizing private contractors. To the extent consistent with ORS Chapter 454, and other applicable statutes, the pilot program may allow private contractors to perform the technical review necessary for the issuance of on-site sewage disposal installation permits, Certificates of Satisfactory Completion or other related on-site activities. In all instances, the private contractors technical review shall be submitted to the Agent for the Agent's review and acceptance or denial. The private contractors must comply with state registration acts which may require registration for people performing these activities. The Department or Agent may consider the enforcement history and criminal record of a person proposing to enter into an agreement under this Section. At the end of the pilot program the Department shall report to the Commission with its findings and recommendations. After the Departments report, the Commission may extend the pilot program for any duration, but shall provide for periodic review of the program.

340-71-130 GENERAL STANDARDS, PROHIBITIONS AND REQUIREMENTS.

- (1) **Public Waters or Public Health Hazards.** If, in the judgment of the Agent, proposed operation of a system would cause pollution of public waters or create a public health hazard, system installation or use shall not be authorized. If, in the judgement of the Agent, the minimum standards contained in these rules do not afford adequate protection of public waters or public health, the requirements shall be more stringent. This may include, but is not limited to, increasing setbacks, increasing drainfield sizing and, or utilizing an Alternative System. If the Agent imposes requirements more stringent than the minimum, the Agent shall provide the applicant with a written statement of the specific reasons why the requirements are necessary.
- (2) **Approved Disposal Required.** All sewage shall be treated and disposed of in a manner approved by the Department. After review by the Technical Review Committee and by the Department, the Director may approve use of new or innovative technologies, materials, or designs that differ from those specified in OAR 340, Divisions 71, 72 and 73, if such technologies, materials or designs provide equivalent or better protection of the public health and safety and waters of the State and meet the purposes of Divisions 71, 72 and 73, including the purposes stated in 340-71-110. The Department may determine that the appropriate method of approving Alternative Systems is by rule amendment.
- (3) **Discharge of Sewage Prohibited.** Discharge of untreated or partially treated sewage or septic tank effluent directly or indirectly onto the ground surface or into public waters constitutes a public health hazard and is prohibited.
- (4) **Discharges Prohibited.** No cooling water, air conditioning water, water softener brine, groundwater, oil, hazardous materials, [or] roof drainage, or other aqueous or non-aqueous substances which are, in the judgement of the Department, detrimental to the performance of the system or to groundwater, shall be discharged into any system.
- (5) **Increased Flows Prohibited.** Except where specifically allowed within this Division, no person shall connect a dwelling or commercial facility to a system if the total projected sewage flow would be greater than that allowed under the original system construction permit.
- (6) **System Capacity.** Each system shall have adequate capacity to properly treat and dispose of the maximum projected daily sewage flow. The quantity of sewage shall be determined from Table 2 or other information the Agent determines to be valid that may show different flows.
- (7) **Material Standards.** All materials used in on-site systems shall comply with standards set forth in these rules.
- (8) **Encumbrances.** A permit to install a new system can be issued only if each site has received an approved site evaluation (OAR 340-71-150) and is free of encumbrances (i.e., easements, deed restrictions, etc.) which could prevent the installation or operation of the system from being in conformance with the rules of this Division.
- (9) **Future Connection to Sewerage System.** In areas where a district has been formed to provide sewerage facilities, placement of house plumbing to facilitate connection to the sewerage system shall be encouraged.



- (10) **Plumbing Fixtures Shall be Connected.** All plumbing fixtures in dwellings and commercial facilities from which sewage is or may be discharged, shall be connected to, and shall discharge into an approved area-wide sewerage system, or an approved on-site system which is not failing.
- (11) **Property Line Crossed.**
- (a) A recorded utility easement and covenant against conflicting uses, on a form approved by the Department, is required whenever a system crosses a property line separating properties under different ownership. The easement must accommodate that part of the system, including setbacks, which lies beyond the property line, and must allow entry to install, maintain and repair the system.
- (b) Whenever an on-site system is located on one lot or parcel and the facility it serves is on another lot or parcel under the same ownership, the owner shall execute and record in the county land title records, on a form approved by the Department, an easement and a covenant in favor of the State of Oregon:
- (A) Allowing its officers, agents, employees and representatives to enter and inspect, including by excavation, that portion of the system, including setbacks, on the other lot or parcel; and
- (B) Agreeing not to put that portion of the other lot or parcel to a conflicting use; and
- (C) Agreeing that upon severance of the lots or parcels, to grant or reserve and record a utility easement, in a form approved by the Department, in favor of the owner of the lot or parcel served by the system.
- (12) **Disposal and Replacement Area.** Except as provided in specific rules, the disposal area, including installed system and replacement area shall [be kept vacant, free of vehicular traffic, and soil modification] not be subject to activity that would, in the opinion of the Agent, adversely affect the soil or the functioning of the system. This may include, but is not limited to, vehicular traffic, covering the area with asphalt or concrete, filling, cutting, or other soil modification.
- (13) **Operation and Maintenance.** All systems shall be operated and maintained so as not to create a public health hazard or cause water pollution. Those facilities specified in (15) or (16) of this Rule as requiring a WPCF permit shall have operation and maintenance requirements established in the permit.
- (14) **Construction.** The Department or Agent may limit the time period a system can be constructed due to soil conditions, weather, groundwater, or other conditions which could affect the reliability of the system.

(15) [(14)] Operating Permit Requirements. [Systems with a projected daily sewage flow greater than five thousand (5,000) gallons] The following systems shall be constructed and operated under a renewable [Water Pollution Control Facilities (WPCF)] WPCF Permit, issued pursuant to Rule 162 of this Division: [issued pursuant to OAR chapter 340 Division 14.]

- (a) Any system with a projected daily sewage flow greater than 2,500 gallons;
- (b) A system of any size, if the sewage produced is greater than residential strength waste water;
- (c) Holding tanks;

Note: This requirement does not apply to septic tanks used as temporary holding tanks pursuant to Rule 160(11) of this Division.

- (d) A system, which includes a conventional sand filter as part of the treatment process, that serves a commercial facility;
- (e) A system which includes an aerobic treatment facility as part of the treatment process if:
  - (A) The system serves a commercial facility; or
  - (B) The system does not meet the requirements of Rules 220 and 345 of this Division.
- (f) Recirculating Gravel Filters (RGFs);
- (g) Other systems that are not described in this Division, that do not discharge to surface public waters.

(16) WPCF Permits for Existing Facilities. Owners of existing systems, other than owners of holding tanks, which these rules otherwise require to be constructed and operated under a WPCF permit, are not required to apply for a WPCF permit until such time as a system repair, correction, alteration, or expansion is necessary. All owners of existing holding tanks which require a WPCF permit under this rule shall make application for a WPCF permit within twelve (12) months of the effective date of these rules.

(17) Perpetual Surety Bond Requirements. Pursuant to Oregon Revised Statutes (ORS) 454.425 and OAR Chapter 340 Division 15, a perpetual surety bond, or approved alternate security, in the amount of \$1.00 per gallon per day installed sewage disposal capacity, shall be filed with the Department by any person proposing to construct or operate facilities for the collection, treatment, or disposal of sewage with a design capacity of 5,000 gallons per day or more.

(1) Exemptions From the Surety Bond Requirements:

- (a) Systems serving only food handling establishments, travel trailer accommodations, tourist and travelers facilities, or other development operated by a public entity or under license issued by the State Health Division;

(Systems which serve both licensed facilities and unlicensed facilities require a surety bond if the portion requiring a Health Division license has a design capacity of 5,000 gallons per day or more.)

- (b) Systems owned and operated by a state or federal agency, city, county service district, sanitary authority, sanitary district, or other public body;
    - (c) Systems serving the sewerage needs of industrial or commercial operations where there are no permanent residences.
  - (2) Alternate Security: The approved forms of alternate security are specified in OAR 340-15-020.
- (18) Fees for WPCF Permits. The fees required to be filed with WPCF permit applications and to be paid annually for WPCF permit compliance determination are outlined in Section 140(6) of this Division.
- (19) Variances for WPCF Permits. The variance procedures established in this Division do not apply to systems permitted by WPCF Permit.
- (20) Engineering Plan Review. Pursuant to ORS 468B.055, unless specifically exempted by rule, all plans and specifications for the construction, installation or modification of disposal systems, shall be submitted to the Department for its approval or denial pursuant to rules of the Commission. The design criteria and rules governing the plan review are as follows:
  - (a) For on-site systems which do not require a WPCF permit, the rules and design criteria for construction are found in this Division. Construction standards for certain manufactured items are found in Division 73.
  - (b) For on-site systems which require a WPCF permit, the design criteria in this Division shall be used. However, the Department may allow variations of the design criteria and/or technologies, when the applicant or Department has adequate documentation of successful operation of that technology or design. The burden of proof for demonstrating new processes, treatment systems, and technologies that the Department is unfamiliar with, lies with the system designer. The Department shall review all plans and specifications for WPCF permits pursuant to procedures and requirements outlined in Division 52.
- (21) Manufacturer's Specifications. All materials and equipment, including but not limited to tanks, pipe, fittings, solvents, pumps, controls, valves, etc. shall be installed, constructed, operated, and maintained in accordance with manufacturer's minimum specifications.
- (22) Sewer and Water Lines. Effluent sewer and water line piping which is constructed of materials which are approved for use within a building, as defined by the current Oregon State Plumbing Specialty Code, may be run in the same trench. Where the effluent sewer pipe is of material not approved for use in a building, it shall not be run or laid in the same trench as water pipe unless both of the following conditions are met:
  - (a) The bottom of the water pipe at all points shall be set at least 12 inches above the top of the sewer pipe.
  - (b) The water pipe shall be placed on a solid shelf excavated at one side of the common trench with a minimum clear horizontal distance of at least 12 inches from the sewer pipe.

(23) [(15)] Septage Disposal. No person shall dispose of sewage, ~~[or]~~ septage (septic tank pumpings), or sewage contaminated materials in any location not authorized by the Department under applicable laws and rules for such disposal.

(24) Groundwater Levels. All groundwater levels shall be predicted using "Conditions Associated With Saturation" as defined in Rule 71-100. If conditions associated with saturation do not occur in soil with rapid or very rapid permeability, predictions of the highest level of the water shall be based on past recorded observations of the Agent. If such observations have not been made, or are inconclusive, the application shall be denied until observations can be made. Groundwater level determinations shall be made during the period of the year in which high groundwater normally occurs in that area.

340-71-140 FEES -- GENERAL.

- (1) Except as provided in section (5) of this rule, the following non-refundable fees are required to accompany applications for site evaluations, permits, licenses and services provided by the Department.

ON-SITE SEWAGE DISPOSAL SYSTEMS	MAXIMUM FEE
------------------------------------	----------------

(a) New Site Evaluation:

(A) Single Family Dwelling:

(i) First Lot..... \$ 380

(ii) Each Additional Lot Evaluated During  
Initial Visit ..... \$ 205

(B) Commercial Facility System:

(i) For First One Thousand (1000) Gallons  
Projected Daily Sewage Flow ..... \$ 380

(ii) For systems with projected sewage flows greater than one thousand (1,000) gallons but not more than 5,000 gallons, the site evaluation application fee shall be \$380 plus an additional \$100 for each 500 gallons or part thereof above 1,000 gallons.

(C) Site Evaluation Report Review ..... \$ 335

(D) Fees for site evaluation applications made to an agreement county shall be in accordance with that county's fee schedule.

(E) Each fee paid for a site evaluation report entitles the applicant to as many site inspections on a single parcel or lot as are necessary to determine site suitability for a single system. The applicant may request additional site inspections within ninety (90) days of the initial site evaluation, at no extra cost.

(F) Separate fees shall be required if site inspections are to determine site suitability for more than one (1) system on a single parcel of land.

(b) Construction-Installation Permit:

(A) For First One Thousand (1000) Gallons Projected Daily Sewage Flow:

(i) Standard On-Site System ..... \$ 565

(ii) Alternative System:

(I)	Aerobic System .....	\$ 565
(II)	Capping Fill .....	\$ 860
(III)	Cesspool .....	\$ 565
(IV)	Disposal Trenches in Saproliite..	\$ 565
(V)	Evapotranspiration-Absorption...	\$ 565
(VI)	Gray Water Waste Disposal Sump..	\$ 240
(VII)	Holding Tank .....	\$ 565
(VIII)	Pressure Distribution .....	\$ 860
(IX)	Redundant .....	\$ 565
(X)	Sand Filter .....	\$1,100
(XI)	Seepage Pit .....	\$ 565
(XII)	Seepage Trench .....	\$ 565
(XIII)	Steep Slope .....	\$ 565
(XIV)	Tile Dewatering .....	\$ 860

(iii) At the discretion of the Agent, the permittee may be assessed a reinspection fee, not to exceed \$200, when a precover inspection correction notice requires correction of improper construction and, at a subsequent inspection, the Agent finds system construction deficiencies have not been corrected. The Agent may elect not to make further precover inspections until the reinspection fee is paid.

(iv) With the exceptions of sand filter and pressure distribution systems, a \$25 fee may be added to all permits that specify the use of a pump or dosing siphon.

(B) For systems with projected daily sewage flows greater than one thousand (1,000) gallons, the Construction-Installation permit fee shall be equal to the fee required in OAR 340-71-140 (1) (b) (A) plus \$50 for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons.

**NOTE:** Fees for construction permits for systems with projected daily sewage flows greater than two thousand five hundred (2500) [~~five thousand (5,000)~~] gallons shall be in accordance with the fee schedule for WPCF permits.

(C) Commercial Facility System, Plan Review:

(i) For a system with a projected daily sewage flow of less than six hundred (600) gallons, the cost of plan review is included in the permit application fee.

(ii) For a system with a projected daily sewage flow of six hundred (600) gallons, but not more than one thousand (1,000) gallons  
projected daily sewage flow ..... \$ 200

(iii) For a system with a projected sewage flow greater than 1,000 gallons, the plan review fee shall be \$200, plus an additional \$25 for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons, to a maximum sewage flow limit of two thousand five hundred (2500) [~~five thousand (5,000)~~] gallons per day.

~~[(iv) Plan review for systems with projected sewage flows greater than five thousand (5,000) gallons per day shall be pursuant to OAR 340, Division 52.]~~

- (D) Permit Renewal:
  - (i) If Field Visit Required ..... \$ 290
  - (ii) No Field Visit Required..... \$ 85

**NOTE:** Renewal of a permit may be granted to the original permittee if an application for permit renewal is filed prior to the original permit expiration date. Refer to OAR 340-71-160(10).

- (E) Alteration Permit ..... \$ 555

(F) Repair Permit:

- (i) Single Family Dwelling:
  - (I) Major ..... \$ 310
  - (II) Minor ..... \$ 150
- (ii) Commercial Facility:
  - (I) Major -- The appropriate fees identified in paragraphs (1) (b) (A), (B), and (C) of this rule apply.
  - (II) Minor ..... \$ 280

- (G) Permit Denial Review ..... \$ 335

(c) Authorization Notice:

- (A) If Field Visit Required ..... \$ 350
- (B) No Field Visit Required ..... \$ 90
- (C) Authorization Notice Denial Review ..... \$ 335

- (d) Annual Evaluation of Alternative System(Where Required) ..... \$ 280

~~[(e) Annual Evaluation of Large System (2501 to 5000 GPD). \$ 280]~~

- (e) ~~[(f)]~~ [Annual] Evaluation of Temporary or Hardship
  - Mobile Home..... \$ 280

- (f) ~~[(g)]~~ Variance to On-Site System Rules ..... \$ 225

**NOTE:** The variance application fee may be waived if the applicant meets the requirements of OAR 340-71-415(5).

(g) [~~(h)~~] Rural Area Variance to Standard Subsurface Rules:

- (A) Site Evaluation .. ..... \$ 380

**NOTE:** In the event there is on file a site evaluation report for that parcel that is less than ninety (90) days old, the site evaluation fee shall be waived.

- (B) Construction-Installation Permit -- The appropriate fee identified in subsection (1) (b) of this rule applies.

(h) [~~(i)~~] Sewage Disposal Service:

- (A) New Business License..... \$ 300

- (B) Renewal of Existing and Valid Business License \$ 200

- (C) Transfer of or Amendments to License ..... \$ 150

- (D) Reinstatement of Suspended License ..... \$ 175

- (E) Pumper Truck Inspection, First Vehicle:

- (i) Each Inspection..... \$ 100

- (ii) Each Additional Vehicle, Each Inspection \$ 50

- (i) [~~(j)~~] Experimental Systems: Permit..... \$5,000

- (j) [~~(k)~~] Existing System Evaluation Report ..... \$ 350

**NOTE:** The fee shall not be charged for an evaluation report on any proposed repair, alteration or extension of an existing system.

- (2) Contract County Fee Schedules. Pursuant to ORS 454.745(4), fee schedules which exceed the maximum fees in ORS 454.745(1) and section (1) of this rule shall be established by rule.

- (3) Contract County Fee Schedules, General:

- (a) Each county having an agreement with the Department under ORS 454.725 shall adopt a fee schedule for services rendered and permits to be issued. The county fee schedule shall not include the Department's surcharge fee identified in section 4 of this rule.

- (b) A copy of the fee schedule and any subsequent amendments to the schedule shall be forwarded to the Department.

- (c) Fees shall not:

- (A) Exceed actual costs for efficiently conducted services;

- (B) Exceed the maximum fee established in section (1) of this rule, unless approved by the Commission pursuant to ORS 454.745(4).



(4) Surcharge. In order to offset a portion of the administrative and program oversight costs of the statewide on-site sewage disposal program, a surcharge of \$35 for each site evaluated, for each construction installation permit and all other activities for which an application is submitted, shall be levied by the Department and by each Agreement County. Proceeds from surcharges collected by the Department and Agreement Counties shall be accounted for separately. Each Agreement County shall forward the proceeds to the Department as negotiated in the memorandum of agreement (contract) between the county and the Department.

(5) Refunds. The Agent may refund all or a portion of a fee accompanying an application if the applicant withdraws the application before the Agent has done any field work or other substantial review of the application.

(6) Fees for WPCF Permits. The following fee schedule shall apply to WPCF Permits for on-site sewage disposal systems issued pursuant to Rule 162 of this Division:

(a) Application filing fee (all categories)..... \$ 50

(b) Permit processing fees for sewage lagoons and other on-site disposal systems over 1,200 gpd:

- (A) New Applications ..... \$2,000
- (B) Permit Renewals (including request for effluent limit modifications)..... \$1,000
- (C) Permit Renewal (without request for effluent limit modifications)..... \$ 500
- (D) Permit modification (involving increase in effluent limits)..... \$1,000
- (E) Permit modification (not involving an increase in effluent limits)..... \$ 500

(c) Permit processing fees for on-site systems of 1,200 gpd or less:

- (A) New Applications..... \$ 400
- (B) Permit Renewals (involving request for effluent limit modifications)..... \$ 200
- (C) Permit Renewals (without request for effluent limit modifications)..... \$ 100
- (D) Permit Modifications (involving increase in effluent limitations)..... \$ 150
- (E) Permit Modifications (not involving an increase in effluent limits)..... \$ 100

(d) Registration fee for General Permits..... \$ 150

(e) Site Evaluation Fee:

- (i) Facilities with design flow of 5,000 gpd or less.....same as (1) (a) of this Rule.
- (ii) Facilities with design flow greater than 5,000 gpd..... \$1,200

(f) Site Evaluation Confirmation Fee..... \$ 350

Note: A Site Evaluation Confirmation Fee is required if the site evaluation is performed by a qualified consultant but, through the site evaluation review process, a site visit is still required by the Department or Agent.

(g) Plan Review Fee:

- (i) Commercial Facilities with design flows less than 5,000 gpd...same as (1)(b)(C) of this rule.
- (ii) Commercial Facilities with design flows of 5,000 gpd or more..... \$ 500
- (iii) Non-commercial Facilities..... \$ 100

Note: A plan review fee is required when engineered plans must be reviewed for a facility which requires a WPCF permit.

(h) Annual Compliance Determination Fee:

- (A) On-site sewage lagoon with no discharge..... \$ 600
- (B) On-site subsurface systems with individual WPCF Permit or general permit:
  - (i) Standard or alternative subsurface system not listed below, with design flow of 20,000 gpd or more..... \$ 500
  - (ii) Standard or alternative subsurface system not listed below with design flow less than 20,000 gpd..... \$ 250
  - (iii) Aerobic systems, 1,500 gpd or more..... \$ 500
  - (iv) Aerobic systems, less than 1,500..... \$ 250
  - (v) Recirculating Gravel Filter, 1,500 gpd or more..... \$ 500
  - (vi) Recirculating Gravel Filter, less than 1,500 gpd..... \$ 250
  - (vii) Sand Filter, 1,500 gpd or more..... \$ 500
  - (viii) Sand Filter, less than 1,500 gpd..... \$ 250
  - (viii) Holding tanks..... \$ 200

Note: The annual compliance determination fee (ACDF) is due July of each year. For permits which are issued between July 1 and September 31, the full fee is due before the permit will be issued. For permits issued after September 31, the ACDF will be prorated by calendar quarter.

**340-71-150 SITE EVALUATION PROCEDURES.**

- (1) A site evaluation is the first step in the process of obtaining a construction permit for an on-site system. Except as otherwise allowed in these rules, any person who wishes to install a new on-site sewage system shall first obtain a site evaluation report.
- (2) Applications for site evaluations shall be made to the Agent, on forms approved by the Department. Each application must be completed in full, signed by the owner or ~~his~~ legally authorized representative, and be accompanied by all required exhibits and appropriate fee. Incomplete applications shall be returned to the applicant to be completed. Unless other procedures approved by the Department are provided within a contract county, applicants shall provide at least two (2) test pits with dimensions and configuration as directed by the Agent, which are ~~[of at least two (2) feet wide by four (4) feet long by five (5) feet deep, and]~~ located approximately seventy-five (75) feet apart and within the area of the proposed system~~[-]~~, including the repair/replacement area.
- (3) Site Evaluation Report:
  - (a) The Agent shall evaluate the site of the proposed system, shall consider all system options, and shall provide a report of such evaluation.
  - (b) The site evaluation report shall be on a form approved by the Department.
  - (c) The report shall contain, at a minimum, a site diagram and observations of the following site characteristics, if present:
    - (A) Parcel size;
    - (B) Slope -- in disposal field and replacement areas (percent and direction);
    - (C) Surface streams -- springs -- other bodies of water;
    - (D) Existing and proposed wells;
    - (E) Escarpments;
    - (F) Cuts and fills;
    - (G) Unstable landforms;
    - (H) Soil profiles -- determined from test pits provided by applicant;
    - (I) Water table levels;
    - (J) Useable area for initial and replacement disposal areas;
    - (K) Encumbrances (applicant list on application);
    - (L) Sewerage availability;
    - (M) Other observations as appropriate.

- (d) Site evaluation reports for subdivisions or other land divisions shall be based upon an evaluation of each lot.
  - (e) Specific conditions or limitations imposed on an approved site shall be listed on the evaluation report.
  - (f) An Agent approved site evaluation report assures that the property owner will receive a permit to construct a system on that property provided procedures and conditions for permit issuance found in Rule 340-71-160 are met.
- (4) Approval or Denial:
- (a) In order to obtain a favorable site evaluation report the following conditions shall be met:
    - (A) All criteria for approval of a specific type or types of system, as outlined in OAR 340, Division 71 shall be met.
    - (B) Each lot or parcel must have sufficient usable area available to accommodate an initial and replacement system. The usable area may be located within the lot or parcel, or within the bounds of another lot or parcel if secured pursuant to OAR 340-71-130(11). Sites may be approved where the initial and replacement systems would be of different types, e.g., a standard subsurface system as the initial system and an alternative system as the replacement system. The site evaluation report shall indicate the type of the initial and type of replacement system for which the site is approved.
- EXCEPTION: A replacement area is not required in areas under control of a legal entity such as a city, county, or sanitary district, provided the legal entity gives a written commitment that sewerage service will be provided within five (5) years.
- (b) A site evaluation shall be denied where the conditions identified in subsection (4)(a) of this rule are not met.
  - (c) Technical rule changes shall not invalidate a favorable site evaluation, but may require use of a different kind of system.
- (5) Site Evaluation Report Review. A site evaluation report issued by the Agent shall be reviewed at the request of the applicant. The application for review shall be submitted to the Department in writing, within thirty (30) days of the site evaluation report issue date, and be accompanied by the review fee. The review shall be conducted and a report prepared by the Department.

**340-71-155 EXISTING SYSTEM EVALUATION REPORT.**

- (1) Any person, upon application, may request an evaluation report on an existing on-site sewage disposal system. The application shall be on a form provided by the Agent and approved by the Department.
- (2) The application is complete only when the form, on its face, is completed in full, signed by the owner or the owner's legally authorized representative, and is accompanied by all necessary exhibits including the fee. A fee shall not be charged for an evaluation report on any proposed repair, alteration or extension of an existing system for which a permit application has been made pursuant to OAR 340-71-160.
- (3) The Agent shall:
  - (a) Examine the records, if available, on the existing system; and
  - (b) Conduct a field evaluation of the existing system; and
  - (c) Issue a report of findings to the applicant.

340-71-160 PERMIT APPLICATION PROCEDURES -- GENERAL REQUIREMENTS

- (1) No person shall cause or allow construction, alteration, or repair of a system, or any part thereof, without first applying for and obtaining a permit.

EXCEPTION: Emergency repairs as set forth in rule 340-71-215.

- (2) Applications for permits shall be made on forms [~~provided by the Agent and~~] approved by the Department.

- (3) An application is complete only when the form, on its face, is completed in full, is signed by the owner or the owner's legally authorized representative, and is accompanied by all required exhibits and fee. Except as otherwise allowed in [~~OAR 340-71-400(6)~~] OAR 340, Division 71, the exhibits shall include:

- (a) Favorable site evaluation report. At the Agent's discretion, the requirement for an evaluation report may be waived when the application is for a repair permit or an alteration permit.
- (b) A [Favorable] land use compatibility statement from the appropriate land use authority signifying that the proposed land use is compatible with the Land Conservation and Development Commission acknowledged comprehensive plan or complies with the statewide planning goals.
- (c) Plans and specifications for the on-site system proposed for installation within the area identified by the Agent or in the favorable site evaluation report. The Agent shall determine and request the minimum level of detail necessary to insure proper system construction.
- (d) Any other information the Agent finds is necessary to complete the permit application.

- (4) The application form shall be received by the Agent only when the form is complete, as detailed in section (3) of this rule.

- (5) Upon receipt of a completed application the Agent shall deny the permit if:

- (a) The application contains false information;
- (b) The application was wrongfully received by the Agent;
- (c) The proposed system would not comply with these rules;
- (d) The proposed system, if constructed, would violate a Commission moratorium as described in rule 340-71-460;
- (e) The proposed system location is encumbered as described in section 340-71-130(8);
- (f) A sewerage system which can serve the proposed sewage flow is both legally and physically available, as described [below] in paragraphs (A) and (B) of this subsection:

(A) Physical Availability. A sewerage system shall be deemed physically available if its nearest connection point from the property to be served is:

- (i) For a single family dwelling, or other establishment with a maximum projected daily sewage flow of not more than four hundred fifty (450) gallons, within three hundred (300) feet;
- (ii) For a proposed subdivision or group of two (2) to five (5) single family dwellings, or equivalent projected daily sewage flow, not further than two hundred (200) feet multiplied by the number of dwellings or dwelling equivalents.
- (iii) For proposed subdivisions or other developments with more than five (5) single family dwellings, or equivalents, the Agent shall make a case-by-case determination of sewerage availability.

**EXCEPTION:** A sewerage system shall not be considered available if topographic or man-made features make connection physically impractical.

(B) Legal Availability. A sewerage system shall be deemed legally available if the system is not under a Department connection permit moratorium, and the sewerage system owner is willing or obligated to provide sewer service.

- (6) A permit shall be issued only to a person licensed under ORS 454.695, or to the owner or easement holder of the land on which the system is to be installed.
- (7) No person shall construct, alter or repair a system, or any part thereof, unless that person is licensed under ORS 454.695, or is the permittee.
- (8) The Agent shall either issue or deny the permit within twenty (20) days after receipt of the completed application.

**EXCEPTION:** If weather conditions or distance and unavailability of transportation prevent the Agent from acting to either issue or deny the permit within twenty (20) days, the applicant shall be notified in writing. The notification shall state the reason for delay. The Agent shall either issue or deny the permit within sixty (60) days after the mailing date of such notification.

- (9) A permit issued pursuant to these rules shall be effective for one (1) year from the date of issuance for construction of the system. The construction-installation permit is not transferable. Once a system is installed pursuant to the permit, and a Certificate of Satisfactory Completion has been issued for the installation, conditions imposed as requirements for permit issuance shall continue in force as long as the system is in use.
- (10) Renewal of a permit may be granted to the original permittee if an application for permit renewal is filed prior to the original permit expiration date. Application for permit renewal shall conform to the requirements of sections (2) and (4) of this rule. The permit shall be issued or denied consistent with sections (5), (6), (8), and (9) of this rule.

- (11) If a permit has been issued pursuant to these rules but existing soil moisture conditions preclude the construction of the soil absorption system, the septic tank may be installed and used as a temporary holding tank upon approval of the Agent. Before the Agent will approve such use, the permittee shall demonstrate that the outlet of the tank has been sealed with a water tight seal and that the permittee or owner has entered into a pumping contract for the tank. The maximum length of time a septic tank can be used as a temporary holding tank is 12 months.



340-71-162 PERMIT APPLICATION PROCEDURES - WPCF PERMITS

- (1) Any person wishing to obtain a new, modified, or renewal WPCF permit shall submit a written application on forms provided by the Department. Applications must be submitted at least 60 days before a permit is needed. All application forms must be completed in full, signed by the applicant or the applicant's legally authorized representative, and accompanied by the specified number of copies of all required exhibits. The name of the applicant must be the legal name of the owner of the facilities, the owner's agent, or the lessee responsible for the operation and maintenance. Some of the required exhibits, but not necessarily all of them, which must accompany the application are:
  - (a) A land use compatibility statement from the local land use planning agency indicating that the site is approved for the activity for which the applicant is applying (If the activity is approved only upon condition of a conditional use permit, a copy of the issued conditional use permit shall be one of exhibits.);
  - (b) A copy of a favorable site evaluation report indicating that the site is approved for the type and quantity of wastes to be disposed;.
  - (c) Evidence that the permit processing fees and the first year's annual compliance determination fee have been paid to the Department or Agent, as directed.
  - (d) A site diagram meeting the requirements of 340-71-160(3)(c).
- (2) Applications which are obviously incomplete, unsigned, or which do not contain the required exhibits will not be accepted by the Department for filing and may be returned for completion.
- (3) Within 15 days after filing, the Department will preliminarily review the application to determine the adequacy of the information submitted:
  - (a) If the Department determines that additional information is needed, it will promptly request the needed information from the applicant. The application will not be considered complete for processing until the requested information is received. The application will be considered withdrawn if the applicant fails to submit the requested information within 90 days of the request;
  - (b) If, in the opinion of the Department, additional measures are necessary to gather facts regarding the application, the Department will notify the applicant that said measures will be instituted, and the timetable and procedures to be followed. The application will not be considered complete for processing until the necessary additional fact finding measures are completed. When the Department determines the information in the application is adequate, the applicant shall be notified in writing that the application is complete for processing.
- (4) Following determination that the application is complete for processing, each application will be reviewed on its own merits. Recommendations will be developed in accordance with the provisions of all applicable statutes and rules of the Commission.

- (5) Draft Permit Review. If the Department makes a preliminary determination to issue a permit, a permit will be drafted and sent to the applicant for review. The applicant will have up to 14 calendar days to comment on the draft permit.
- (6) Public Participation. For on-site disposal systems with a design flow of 5,000 gallons per day or greater, a public notice of the pending Department action shall be distributed to the interested public. If in the public interest, at the discretion of the Department, a public notice may be distributed regarding pending Department actions on other on-site disposal systems requiring WPCF permits. If a public notice is distributed, it shall be for a period of at least 30 days. If, during the public notice period, the Department receives written requests from ten persons, or from an organization representing at least 10 persons, for a public hearing to allow interested persons to appear and submit oral or written comments on the proposed provisions, the Department shall provide such a hearing before taking final action on the application, at a reasonable place and time and on reasonable notice.
- (7) Final Department Action. Within 45 days after closing of the public comment period, the Department shall take final action on the permit application. In making its final determination, the Department shall consider the comments received and any other information obtained which may be pertinent to the application being considered.
- (8) Applicant's Appeal Rights. If the applicant is dissatisfied with the conditions or limitations of the permit, the applicant may request a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director within 20 days of the date of mailing of the notification of final permit action. Any hearing held shall be conducted pursuant to OAR Chapter 340 Division 11.
- (9) Permit Term. A permit issued pursuant to this rule shall be for a period not to exceed 5 years. The expiration date shall be recorded on each permit issued. At least 90 days prior to the expiration of the permit, a permit renewal application, on forms provided by the Department, shall be filed with the Department to obtain renewal of the permit.
- (10) For systems which are proposed to be or which are operating under a WPCF permit, no person shall construct, alter or repair the absorption facility, or any part thereof, unless that person is licensed under ORS 454.695, or is the permittee.
- (11) No person shall connect to or use any system authorized by a WPCF permit, unless the system has been inspected and certified as per Division 52, and that certification has been received and accepted by the Department.
- (12) Renewal of a Permit. The procedures for issuance of a permit shall apply to renewal of a permit. If a completed application for renewal of a permit is filed with the Department in a timely manner prior to expiration date of the permit, the permit shall not be deemed to expire until final action has been taken on the renewal application to issue or deny a permit.

- (13) Permit Modification. In the event it becomes necessary for the Department to institute modification of a permit due to changing conditions or standards, receipt of additional information or any other reason pursuant to applicable statutes, the Department shall notify the permittee by registered or certified mail of its intent. Such notification shall include the proposed modification and reasons for modification. The modification 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 a request for 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 OAR Chapter 340, Division 11.
- (14) Permit Suspension or Revocation. In the event it becomes necessary for the Department to suspend or revoke a permit due to non-compliance, unapproved changes in operation, false information submitted in the application, failure to pay fees, or to maintain the required surety bond or equivalent security, the Department will notify the permittee by registered or certified mail of its intent. 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 or resolves the issue which would cause the permit to be suspended. Any request for a hearing shall be in writing to the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to OAR Chapter 340, Division 11.
- (15) Transfer of a WPCF Permit. No WPCF permit shall be transferred to a third party without prior written approval from the Department. Such approval may be granted by the Department where the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the WPCF permit and the rules of the Commission.
- (16) General Permits.
- (a) The Department may issue general permits for certain categories of on-site sewage disposal systems where an individual WPCF permit is not necessary in order to adequately protect public health and the environment. Prior to issuing the general permit, the Department shall follow the same public notice procedures found in Section (6) of this Rule.
- In order to be covered by a general permit issued by the Department, a person shall:
- (A) Submit a registration application on a form provided by the Department or Agent, along with the necessary attachments, including but not limited to favorable site evaluation and land use compatibility statement;
- (B) Demonstrate that the on-site disposal facility fits into the category of sources covered by the general permit;
- (C) Submit applicable fees.
- (b) Any person covered by a general permit may request to be covered by an individual WPCF, in lieu of the general permit, upon submission of the required application and fees.

- (c) The Department may revoke a general permit as it applies to any person's on-site sewage disposal system and require such person to apply for and obtain an individual WPCF permit, if:
    - (A) The covered source or activity is a significant contributor of pollution or creates other environmental problems;
    - (B) The permittee is not in compliance with the terms and conditions of the general permit; or
    - (C) Conditions or standards have changed so that the source or activity no longer qualifies for a general permit.
  - (d) The Department's Agent may distribute and receive registration applications for general permits for on-site sewage disposal systems and may distribute general permits, if the procedure is established in an agreement between the Department and the Agent.
- (17) Rules Which Do Not Apply to WPCF Applicants or Permittees.
- (a) Because the permit review, issuance, and appeal procedures for WPCF permits are different from those of other on-site permits regulated by these rules, the following portions of Oregon Administrative Rules (OAR) Chapter 340, Divisions 71, do not apply to WPCF applicants or permittees: OAR 340-71-155; 160(6), (8), (9), and (10); 165(1); 170; 175; 185; 195; 200; 205; 210; 215(1), (2), (3),; 220(2); 270; 275(4)(c)(A); 290(4); 295(1); 305; 320; 325; 330; 345; 360(2)(b)(B); 410; 415; 420; 425; 430; 435; 440; 445; Table 2; Table 4; and Table 5.
  - (b) Permit applicants and permittees are not subject to any WPCF permit-related fees other than those specifically contained within 340-71-140.
  - (c) The following portions of OAR Chapter 340 Division 73, do not apply to WPCF applicants or permittees: OAR 340-73-030(1); 065; 070; and 075.

**340-71-165 PERMIT DENIAL REVIEW.**

- (1) A permit denied by the Agent shall be reviewed at the request of the applicant. The application for review shall be submitted to the Department in writing, within thirty (30) days of the permit denial notice from the Agent, and be accompanied by the denial review fee. The denial review shall be conducted and a report prepared by the Department.
- (2) Permit denials for systems proposed to serve a commercial facility, intended to be used in a commercial activity, trade, occupation or profession, and all systems covered by WPCF permit, may be appealed through the contested case hearing procedure set forth in ORS 183 and OAR Chapter 340, Division 11.
- (3) If the Agent intends to deny a permit for a parcel of ten (10) acres or larger in size, the Agent shall:
  - (a) Provide the applicant with a Notice of Intent to Deny;
  - (b) Specify reasons for the intended denial; and
  - (c) Offer a contested case hearing in accordance with ORS 183 and OAR Chapter 340, Division 11.

340-71-170 PRE-COVER INSPECTIONS.

- (1) When construction, alteration or repair of a system for which a permit has been issued is complete, except for backfill (cover), or as required by permit, the system installer shall notify the Agent. The Agent shall inspect the installation to determine if it complies with the rules of the Commission, unless the inspection is waived by the Agent in accordance with section (2) of this rule or in accordance with the provisions of OAR 340-71-400(6).
- (2) The Agent may, at the Agent's ~~[his own]~~ election, waive the pre-cover inspection for a system proposed to serve a single family dwelling or for a system of similar flow and waste strength, provided:
  - (a) The system was ~~[installation is a standard subsurface system]~~ installed by a sewage disposal service licensed pursuant to ORS 454.695; and
  - (b) The inspecting jurisdiction and the Department have developed an impartial method of identifying those installers who have a history of proper installations without excessive numbers of corrections; and
  - (c) Inspections waived are for installations made by installers identified as having a good history of proper installation; and
  - ~~[(d) A list of installers whose inspections may be waived is available to the public and the Department; and]~~
  - ~~[(e)]~~ (d) A representative number of each installer's systems has been inspected, regardless of installation history. ~~[-; and]~~
  - ~~[(f) After system completion the installer certifies in writing that the system complies with the rules of the Commission, and provides the Agent with a detailed as built plan (drawn to scale) of the installation.]~~
  - (f) The Agent may require the installer to submit to the Agent photographs of those portions of the construction where the inspection is waived.
- (3) The system installer shall submit the following information to the Agent at the time construction of the system is complete: ~~[Pre-cover inspection details shall be recorded on a form approved by the Department.]~~
  - (a) A detailed and accurate as-built plan of the constructed system; and
  - (b) A list of all materials used in the construction of the system; and
  - (c) A written certification (on a form acceptable to the Department) that the construction was in accordance with the permit and rules of the Commission.

**340-71-175 CERTIFICATE OF SATISFACTORY COMPLETION.**

- (1) The Agent shall issue a Certificate of Satisfactory Completion[7] if, upon inspection of installation, the system complies with the rules of the Commission and the conditions of the permit.
- (2) If inspected installation does not comply with the rules of the Commission and the conditions of the permit, the permittee shall be notified in writing or a Correction Notice shall be posted on the site. System deficiencies shall be explained and satisfactory completion required. Follow-up inspections may be waived by the Agent. After satisfactory completion a Certificate shall be issued.
- (3) If the inspection is not made within seven (7) days after notification of completion, or if the inspection is waived in accordance with OAR 340-71-170(2) or OAR 340-71-400(6), a Certificate of Satisfactory Completion shall be deemed to have been issued by operation of law. In such cases, a modified Certificate shall be issued to the owner.
- (4) A system, once installed, shall be backfilled (covered) only when:
  - (a) The permittee is notified by the Agent that inspection has been waived; or
  - (b) The inspection has been conducted by the Agent and a Certificate of Satisfactory Completion has been issued; or
  - (c) A Certificate of Satisfactory Completion has been issued by operation of law where the inspection has not been conducted within seven (7) days of notification of completed installation.
- (5) Failure to meet requirements for satisfactory completion within thirty (30) days after written notification or posting of a Correction Notice on the site [7] constitutes a violation of ORS 454.605 to 454.745 and these rules.
- (6) No person shall connect to or use any system, completed on or after January 1, 1974, unless a Certificate of Satisfactory Completion has been issued for the installation, or deemed issued by operation of law as provided in ORS 454.665(2).
- (7) Unless otherwise required by the Agent the system installer shall backfill (cover) a system within ten (10) days after issuance of a Certificate of Satisfactory Completion for that system.
- (8) A Certificate of Satisfactory Completion shall be valid for a period of five (5) years [~~one (1) year~~], for connection of the system to the facility for which it was constructed. After the five (5) [~~one (1)~~] year period, rules for Authorization Notices or Alteration Permits apply, as outlined in rules 340-71-205 and 340-71-210.
- (9) Denial of a Certificate of Satisfactory Completion may be appealed in accordance with ORS 183.310 and OAR Chapter 340, Division 11.

OAR 340-71-185 DECOMMISSIONING [~~ABANDONMENT~~] OF SYSTEMS.

- (1) The owner shall decommission [~~abandon~~] a system when:
  - (a) A sewerage system becomes available and the building sewer has been connected thereto; or
  - (b) The source of sewage has been permanently eliminated; or
  - (c) The system has been operated in violation of OAR 340-71-130(13), unless and until a repair permit and Certificate of Satisfactory Completion are subsequently issued therefor; or
  - (d) The system has been constructed, installed, altered, or repaired without a required permit authorizing same, unless and until a permit is subsequently issued therefor; or
  - (e) The system has been operated or used without a required Certificate of Satisfactory Completion or Authorization Notice authorizing same, unless and until a Certificate of Satisfactory Completion or Authorization Notice is subsequently issued therefor.
  
- (2) Procedures for Decommissioning [~~Abandonment~~]:
  - (a) The [~~septic~~] tank(s), cesspool or seepage pit shall be pumped by a licensed sewage disposal service to remove all septage [~~sludge~~];
  - (b) The [~~septic~~] tank(s), cesspool or seepage pit shall be filled with reject sand, bar run gravel, or other material approved by the agent; or the container shall be removed and properly disposed. [~~; and~~]
  - ~~[(c) The system building sewer shall be permanently capped.]~~
  
- (3) [~~(d)~~] If, in the judgment of the Agent, it is not reasonably possible or necessary to comply with subsections (2) (a) and (2) (b) of this rule, the Agent may waive either or both of these requirements provided such action does not constitute a menace to public health, welfare or safety.



**340-71-195 UPGRADING DISPOSAL SYSTEMS.**

When upgrading systems which approximate a pit privy and gray water discharge to the surface or to a pit, system repair rules (340-71-215) shall apply, provided:

- (1) The system serves an occupied dwelling; and
- (2) The system and dwelling were constructed prior to January 1, 1974.

**340-71-200 PRIOR CONSTRUCTION PERMITS OR APPROVALS.**

- (1) All construction permits and written approvals issued prior to January 1, 1974, expired by rule of the Commission on July 1, 1976, unless they met all requirements of OAR 340-71-015(8) and were converted to Department construction permits prior to that date.
- (2) Converted permits required system construction prior to July 1, 1980. Any prior approvals or prior permits failing to meet the two (2) deadline dates above are void.
- (3) All sites now proposed for on-site systems must meet appropriate requirements of these rules.

340-71-205 AUTHORIZATION TO USE EXISTING SYSTEMS.

~~[(1) For the purpose of these rules, "Authorization Notice" means a non-transferrable written document issued by the Agent which establishes that an existing on-site sewage disposal system appears adequate to serve the purpose for which a particular application is made. Applications for Authorization Notices shall conform to requirements of OAR 340 71 160(2) and (4).]~~

(1) [-(2)] Authorization Notice Required. Except as otherwise allowed in OAR 340, Division 71, [No] no person shall place into service, change the use of, or increase the projected daily sewage flow into an existing on-site sewage disposal system without first obtaining an Authorization Notice, Construction-Installation Permit or Alteration Permit as appropriate.

**EXCEPTIONS:**

-a- An Authorization Notice is not required when a mobile home is replaced with similar mobile home in a mobile home park, or a recreation vehicle is replaced by another recreation vehicle in a lawful recreation vehicle park, provided the sanitary wastewater system has adequate capacity for safe treatment and disposal of sewage generated within the park. [there is a change in use (replacement of mobile homes or recreational vehicles with similar units) in mobile home parks or recreational vehicle facilities.]

-b- An Authorization Notice is not required for placing into service a previously unused system for which a Certificate of Satisfactory Completion has been issued within ~~[one (1) year]~~ five (5) years of the date such system is placed into service, providing the projected daily sewage flow does not exceed the design flow, and there is no other violation of these rules.

(2) An application for the Authorization Notice shall be submitted on a form approved by the Department. The application is complete only when the form, on its face, is completed in full, is signed by the owner or the owner's legally authorized representative, and is accompanied by all required exhibits and fee. The exhibits shall include:

(a) A land use compatibility statement from the appropriate land use authority signifying that the proposed land use is compatible with the Land Conservation and Development Commission acknowledged comprehensive plan or complies with the statewide planning goals;

(b) An accurate property development plan;

(c) A sewage treatment and disposal system description;

(d) Tax lot map or equivalent plat map for the property;

(e) Documentation of hardship if such is being claimed;

(f) All other information the Agent finds is necessary to complete the application.

- (3) For placing into service or for changes in the use of an existing on-site sewage disposal system where no increase in sewage flow is projected, or where the design flow is not exceeded; an Authorization Notice valid for a period not to exceed one (1) year may ~~[shall]~~ be issued if:
- (a) The existing system is not failing; and
  - (b) All set-backs between the existing system and the structure can be maintained; and
  - (c) In the opinion of the Agent the proposed use would not create a public health hazard on the ground surface or in surface public waters.

~~[(4) If the conditions of section (3) of this rule cannot be met, an Authorization Notice shall be withheld until such time as the necessary alterations and/or repairs to the system are made.]~~

- (4) ~~[(5)]~~ For placing into service, or for chang[es]ing [in] the use of a system where projected daily sewage flow would be increased by not more than three hundred (300) gallons beyond the design capacity or by not more than fifty (50) percent of the design capacity for the system, whichever is less; an Authorization Notice valid for a period not to exceed one (1) year may ~~[shall]~~ be issued if:

- (a) The existing system is shown not to be failing; and
- (b) All set-backs between the existing system and the structure can be maintained; and
- (c) Sufficient area exists so that a complete replacement area meeting all requirements of these rules (except those portions relating to soil conditions and groundwater) is available; and
- (d) In the opinion of the Agent the proposed increase would not create a public health hazard or water pollution.

- (5) ~~[(6)]~~ Only one (1) Authorization Notice for an increase of up to three hundred (300) gallons beyond the design capacity, or increase ~~[d]~~ ~~[by]~~ of not more than fifty (50) percent of the design capacity, whichever is less, will be allowed per system.

- (6) ~~[(7)]~~ For placing into service, or for chang[es]ing [in] the use of a system where projected daily sewage flows would be increased by more than three hundred (300) gallons beyond the design capacity, or increased by more than fifty (50) percent of the design capacity of the system, whichever is less, a Construction-Installation Permit shall be obtained. The permit application procedure described in rule 340-71-160 shall be followed. ~~[Refer to rule 340-71-210.]~~

- (7) ~~[(8)]~~ Personal Hardship:

- (a) The Agent may allow a mobile home to use an existing system serving another dwelling, in order to provide housing for a person suffering hardship, or for an individual providing care for such a person, by issuing an Authorization Notice, if:

- (A) The Agent receives satisfactory evidence which indicates that a person is suffering physical or mental impairment, infirmity, or is otherwise disabled (a hardship approval issued under local planning ordinances shall be accepted as satisfactory evidence); and
  - (B) The system is not failing; and
  - (C) The application is for a mobile home; and
  - (D) Evidence is provided that a hardship mobile home placement is allowed on the subject property by the governmental agency that regulates zoning, land use planning, and/or building.
- (b) The Authorization Notice shall remain in effect for a specified period not to exceed 5 years, but shall not ~~to~~ exceed cessation of the hardship. The Authorization Notice may be extended for additional periods by submitting an application in accordance with the requirements in section (2) of this rule. [is renewable on an annual or biennial basis.] The Agent shall impose conditions in the Authorization Notice which are necessary to assure protection of public health.

(8) ~~(9)~~ Temporary Placement:

- (a) The Agent may allow a mobile home to use an existing system serving another dwelling in order to provide temporary housing for a family member in need, and may issue an Authorization Notice provided:
  - (A) The Agent receives evidence that the family member is in need of temporary housing; and
  - (B) The system is not failing; and
  - (C) A full system replacement area is available; and
  - (D) Evidence is provided that a temporary mobile home placement is allowed on the subject property by the governmental agency that regulates zoning, land use planning, and/or building.
- (b) The Authorization Notice shall authorize use for no more than two (2) years and is not renewable. The Agent shall impose conditions in the Authorization Notice necessary to assure protection of public health. If the system fails during the temporary placement and additional replacement area is no longer available, the mobile home shall be removed from the property.

- (9) If the conditions of sections (3), (4), (6), (7) and (8) of this rule cannot be met, the Agent shall either deny the Authorization Notice or shall not issue it until such time as necessary alterations and/or repairs to the system are made. The fee submitted as part of the Authorization Notice application shall be credited towards the fee for the appropriate permit. If the appropriate permit fee is higher than the fee already paid, the owner shall pay the difference. The Agent may require submittal of the exhibits described in OAR 340-71-160(3) to complete the application, and shall issue or deny the appropriate permit consistent with sections (5), (6), (8), and (9) of that rule.
- (10) An Authorization Notice denied by the Agent shall be reviewed by the Department at the request of the applicant. The application for review shall be submitted to the Department in writing within forty-five (45) [thirty (30)] days of the authorization notice denial, and be accompanied by the denial review fee and other information the Department finds is necessary to complete the application. The denial review shall be conducted and a report prepared by the Department.

340-71-210 ALTERATION OF EXISTING ON-SITE SEWAGE DISPOSAL SYSTEMS.

- (1) Permit Required. ~~[(a)]~~ No person shall alter ~~[r]~~ or increase the design capacity of ~~[r]~~ an existing on-site sewage disposal system without first obtaining an Alteration Permit or Construction-Installation Permit, as appropriate. The permit application procedure is described in [Refer to] rule 340-71-160.
- ~~[(b)] No person shall increase the projected daily sewage flow into an existing on-site sewage disposal system by more than three hundred (300) gallons beyond the design capacity or increase by more than fifty (50) percent of the design capacity of the system, whichever is less, until a Construction-Installation Permit is obtained. Refer to rule 340-71-160.]~~
- (2) An application for an Alteration Permit shall be submitted to the Agent for proposed alterations to an existing system. ~~[that do not increase the existing system's design capacity, or do not exceed the existing system's design capacity by more than three hundred (300) gallons per day or fifty (50) percent, whichever is less.]~~ The permit may be issued if the provisions of either subsection (a) or subsection (b) of this section are met:
- (a) Alterations that do not increase the system's design capacity beyond the original design flow:
- (A) The existing system is not failing; and
- (B) The site setbacks in Table 1 can be met except; If the setbacks in Table 1 for septic tanks, treatment units, effluent sewer and distribution units cannot be met, the Agent may allow a reasonable installation.
- (D) In the opinion of the Agent, use of the on-site system would not create a public health hazard or water pollution.
- (b) Alterations that do not exceed the existing system's design capacity by more than three hundred (300) gallons per day or fifty (50) percent, whichever is less:
- ~~[(a)]~~ (A) The existing system is not failing; and
- ~~[(b)]~~ (B) The setbacks in Table 1 can be met; and
- ~~[(c)]~~ (C) In the opinion of the Agent, use of the on-site system would not create a public health hazard or water pollution.
- (3) An application for a Construction-Installation Permit shall be submitted to the Agent when the existing system's design capacity is proposed to be exceeded by greater than three hundred (300) gallons per day or greater than fifty (50) percent, whichever is less. The permit application procedure described in rule 340-71-160 shall be followed. ~~[The permit may be issued if:~~
- ~~(a) The existing system is not failing; and~~
- ~~(b) A favorable site evaluation report has been obtained from the Agent (refer to rule 340-71-150); and~~
- ~~(c) The proposed installation will be in full compliance with these rules.]~~

- (4) Certificate of Satisfactory Completion Required. Upon completion of installation of that part of a system for which a permit [~~an Alteration Permit or Construction Installation Permit~~] has been issued, the system installer shall comply with the requirements for pre-cover inspections, as described in rule 340-71-170. The Agent shall issue or deny the [~~The permittee shall obtain a~~] Certificate of Satisfactory Completion [~~from the Agent~~] for the completed construction pursuant to rule 340-71-175. An increase in the projected daily sewage flow into the system is [~~shall be~~] prohibited until the Certificate is issued.

340-71-215 REPAIR OF EXISTING SYSTEMS.

~~[(1)] For the purpose of these rules, "Emergency Repair" means the repair of a system where sewage is backing up into a dwelling or commercial facility, or there is a broken pressure sewer pipe and immediate action is necessary to correct the situation.]~~

(1) ~~[(2)]~~ A failing system shall be immediately repaired.

**EXCEPTION:** If in the opinion of the Agent adverse soil conditions exist due to climatic conditions that would likely preclude a successful repair, the Agent may allow a delay in commencing repairs until the soil conditions improve. If this exception is exercised, a compliance date shall be specified in a Notice of Violation to the system owner.

(2) ~~[(3)]~~ No person shall repair a failing system without first obtaining a Repair Permit. The permit application procedure is described in Rule [See OAR] 340-71-160.

**EXCEPTION:** Emergency repairs may be made without first obtaining a permit provided that a repair permit application is submitted to the Agent within three (3) working days after the emergency repairs are begun.

(3) ~~[(4)]~~ Certificate of Satisfactory Completion. Upon completion of installation of that part of a system for which a repair permit has been issued, the system installer shall comply with the requirements for pre-cover inspections, as described in rule 340-71-170. The Agent shall issue or deny the ~~[permittee shall obtain~~  
a) Certificate of Satisfactory Completion ~~[from the Agent]~~  
pursuant to rule 340-71-175.

(4) ~~[(5)]~~ Criteria for Permit Issuance:

- (a) If the site characteristics and standards described in rule 340-71-220 can be met, then the repair installation shall conform with them.
- (b) If the site characteristics or standards described in rule 340-71-220 cannot be met, the Agent may allow a reasonable repair installation in order to eliminate a public health hazard. Reasonable repairs may require the installation of an alternative system in order to eliminate a public health hazard.

(5) ~~[(6)]~~ Failing systems which cannot be repaired shall be ~~[abandoned]~~  
decommissioned in accordance with rule 340-71-185.



340-71-220 STANDARD SUBSURFACE SYSTEMS.

~~[(1)] For the purpose of these rules:~~

- ~~(a) "Standard Subsurface System" means an on site sewage disposal system consisting of a septic tank, distribution unit and gravity fed absorption facility constructed in accordance with section (2) of this rule, using six (6) inches of filter material below the distribution pipe, and maintaining not less than eight (8) feet of undisturbed earth between disposal trenches.~~
- ~~(b) "Effective Soil Depth" means the depth of soil material above a layer that impedes movement of water, air, or growth of plant roots. Layers that differ from overlying soil material enough to limit effective soil depths are hardpans, claypans, fragipans, compacted soil, bedrock, saprolite and clayey soil.~~
- ~~(c) "Large System" means any on site system with a daily sewage flow greater than two thousand five hundred (2,500) gallons.~~
- ~~(d) "Conditions Associated with Saturation" means:
  - ~~(A) Reddish brown or brown soil horizons with gray (chromas of two (2) or less) and red or yellowish red mottles; or~~
  - ~~(B) Gray soil horizons, or gray soil horizons with red, yellowish red or brown mottles; or~~
  - ~~(C) Dark colored highly organic soil horizons; or~~
  - ~~(D) Soil profiles with concentrations of soluble salts at or near the ground surface.]~~~~

(1) ~~[(2)]~~ Criteria For Standard Subsurface System Approval. In order to be approved for a standard subsurface system each site must meet all the following conditions:

- (a) Effective soil depth shall extend thirty (30) inches or more from the ground surface as shown in Table 3. A minimum six (6) inch separation shall be maintained between the layer that limits effective soil depth and the bottom of the absorption facility.
- (b) Water table levels shall be predicted using Standards in Rule 71-130 (24).
  - (A) A permanent water table shall be four (4) feet or more from the bottom of the absorption facility.

**EXCEPTION:** In defined geographic areas where the Department has determined through a groundwater study that degradation of groundwater would not be caused nor public health hazards created. In the event this exception is allowed, the rule pertaining to a temporary water table shall apply.
  - (B) A temporary water table shall be twenty-four (24) inches or more below the ground surface. An absorption facility shall not be installed deeper than the level of the temporary water table.

- (C) Groundwater Interceptors. [~~Diagram 13~~] A groundwater interceptor may be used to intercept and/or drain temporary water from a disposal area; however, it may be required to demonstrate that the site can be de-watered prior to issuing a Construction-Installation permit. Groundwater interceptors may be used only on sites with adequate slope to permit proper drainage. Unless otherwise authorized by the Agent, each outlet shall be protected by a short section of Schedule 40 PVC or ABS plastic pipe and a grill to exclude rodents. Where required, groundwater interceptors are an integral part of the system, but do not need to meet setback requirements to property lines, wells, streams, lakes, ponds or other surface water bodies which are required of the sewage disposal area.
- (c) Soil with rapid or very rapid permeability shall be thirty six (36) inches or more below the ground surface. A minimum eighteen (18) inch separation shall be maintained between soil with rapid or very rapid permeability and the bottom of disposal trenches.
- EXCEPTION:** Sites may be approved with no separation between the bottom of disposal trenches and soil as defined in OAR 340-71-100 [~~(114)~~] (139) (a) and (b), with rapid or very rapid permeability, and disposal trenches may be placed into soil as defined in OAR 340-71-100 (139) [~~(114)~~] (a) and (b), with rapid or very rapid permeability if any of the following conditions occur:
- a- A confining layer occurs between the bottom of disposal trenches and the groundwater table. A minimum six (6) inch separation shall be maintained between the bottom of disposal trenches and the top of the confining layer; or
  - b- A layer of non-gravelly (less than 15% gravel) soil with sandy loam texture or finer at least eighteen (18) inches thick occurs between the bottom of the disposal trenches and the groundwater table; or
  - c- The projected daily sewage flow does not exceed a loading rate of four hundred fifty (450) gallons per acre per day.
- (d) Slopes shall not exceed thirty (30) percent and the slope/depth relationship set forth in Table 3.
- (e) The site has not been filled or the soil has not been modified in a way that would, in the opinion of the Agent, adversely affect functioning of the system.
- (f) The site shall not be on an unstable land form, where operation of the system may be adversely affected.
- (g) The site of the initial and replacement absorption facility shall not be covered by asphalt or concrete, or subject to vehicular traffic, livestock, or other activity which would adversely affect the soil.
- (h) The site of the initial and replacement absorption facility will not be subjected to excessive saturation due to, but not limited to, artificial drainage of ground surfaces, driveways, roads, and roof drains.

- (i) Setbacks in Table 1 can be met.
- (A) **Surface Waters** [Stream] Setbacks. Setback from streams or other surface waters shall be measured from bank drop-off or mean yearly highwater mark, whichever provides the greatest separation distance.
  - (B) Lots Created Prior to May 1, 1973. For lots or parcels legally created prior to May 1, 1973, the Agent may approve installation of a standard or alternative system with a setback from surface public waters of less than one hundred (100) feet but not less than fifty (50) feet, provided all other provisions of these rules can be met.
  - (C) Water Lines and Sewer Lines Cross. Where water lines and building or effluent sewer lines cross, separation distances shall be as required in the State Plumbing Code.
  - (D) Septic Tank Setbacks. The Agent shall encourage the placement of septic tanks and other treatment units as close as feasible to the minimum separation from the building foundation in order to minimize clogging of the building sewer.

(2) [~~3~~] Criteria For System Sizing:

Disposal Fields. Disposal fields shall be designed and sized on the basis of:

- (a) Table 2, Quantities of Sewage Flows; or other information determined by the Agent to be reliable.

**EXCEPTIONS:** Systems shall be sized on the basis of three hundred (300) gallons sewage flow per day, plus seventy-five (75) gallons per day for the third bedroom when:

- a- Systems are proposed to serve single family dwellings on lots of record that were created prior to March 1, 1978, which are inadequate in size to accommodate a system sized for a daily sewage flow of four hundred fifty (450) gallons.
  - b- Systems for specifically planned developments, with living units of three (3) or fewer bedrooms, where deed restrictions prohibit an increase in the number of bedrooms.
- (b) Table 4, Minimum Length of Disposal Trench Required, Soil Texture Versus Effective Soil Depth.
- (c) Table 5, Minimum Length of Disposal Trench Required, Soil Texture Versus Depth to Temporary Water.
- (d) Strength of the Wastewater. [~~The minimum length of disposal trench shall be determined by using the following equation:~~  
~~Length = (P) x (Q) x (R),~~

~~where: P = Trench length from Tables 4 or 5, whichever is larger.~~

~~Q = Design peak daily sewage flow divided by 150.~~

~~R = BOD<sub>5</sub> of Wastewater divided by 200 mg/L, or  
TSS of Wastewater divided by 150 mg/L, whichever  
has the higher value. In no case, however, may  
the value of R be less than 1. For a single  
family dwelling, assume a value of 200 mg/L BOD<sub>5</sub>  
and 150 mg/L TSS.]~~

Where the strength of the wastewater exceeds the maximum limits for "Residential Strength Wastewater", as defined in Rule 340-71-100, and/or the contents of the wastewater are atypical of the same or are foreseen as a threat to groundwater, public health, or the environment, the wastewater shall first receive pre-treatment to reduce the factor(s) to acceptable levels, before it can be discharged into a standard or alternative treatment and disposal system. Any system which requires pre-treatment requires a WPCF permit for construction and operation.

(3) [(4)] Septic Tanks:

~~[(a) For the purpose of these rules, "Septic Tank" means a watertight receptacle which receives sewage from a sanitary drainage system, is designed to separate solids from liquids, digest organic matter during a period of detention, and allow the liquids to discharge to a second treatment unit or to a soil absorption facility.]~~

(a) [(b)] Liquid Capacity.

(A) Septic tanks for commercial facilities shall have a liquid capacity of at least two (2) times the projected daily sewage flow, unless otherwise authorized by the Agent or Department; but in no case shall capacity be less than 1,000 gallons. [For projected daily sewage flows up to fifteen hundred (1,500) gallons the septic tank shall have a liquid capacity equal to at least one and one half (1 1/2) days sewage flow, or one thousand (1,000) gallons, whichever is greater.]

~~(B) For projected daily sewage flows greater than fifteen hundred (1,500) gallons, the septic tank shall have a liquid capacity equal to eleven hundred twenty five (1,125) gallons plus seventy five (75) percent of the projected daily sewage flow.]~~

(B) [(C)] Additional volume may be required by the Agent for [industrial or other special wastes] special or unique waste characteristics, including but not limited to flow patterns, volumes, waste strength, or facility operation.

(C) [(D)] The quantity of daily sewage flow shall be estimated from Table 2. For structures not listed in Table 2, the Agent shall determine the projected daily sewage flow.

(D) [(E)] Single Family Dwelling. A septic tank to serve a single family dwelling shall be sized on the number of bedrooms in the dwelling[, as follows:]. For a dwelling with 4 or fewer bedrooms, the tank capacity shall be at least 1,000 gallons. A 1,500 gallon (or larger) septic tank shall be required when the dwelling has more than 4 bedrooms.

- ~~[(i) 1 to 4 bedrooms ..... 1,000 gallons~~
- ~~(ii) 5 bedrooms ..... 1,250 gallons~~
- ~~(iii) More than 5 bedrooms ..... 1,500 gallons]~~

**(b) [(e)] Installation Requirements:**

- (A) Septic tanks shall be installed on a level, stable base that will not settle.
- (B) Septic tanks located in high groundwater areas shall be weighted or provided with an antibuoyancy device to prevent flotation.
- (C) All septic tanks **shall be** installed with ~~[the manhole access deeper than eighteen (18) inches, or when used within a sand filter system, commercial system, or pressurized system shall be provided with]~~ a watertight manhole riser extending to the ground surface or above. The riser shall have a minimum **nominal diameter of 20 inches.** ~~[inside dimension equal to or greater than that of the tank manhole.]~~ A cover shall be provided and securely fastened or weighted to prevent easy removal. **Septic tanks with a soil cover depth of more than 36 inches or having a capacity of more than 3,000 gallons shall have at least one manhole riser which is 30 inches in diameter or more.**
- (D) Septic tanks shall be installed in a location that provides access for servicing and pumping.
- (E) Where practicable, the sewage flow from any establishment shall be consolidated into one septic tank.
- (F) At the discretion of the Agent, a removable plug may be placed in the top of the septic tank's inlet sanitary tee if the septic tank discharges directly into a gravity-fed absorption facility.
- (G) All tanks shall be tested for water tightness in accordance with Rule 340-73-025.**
- (H) The outlet of all septic tanks serving commercial facilities shall be equipped with an effluent filter meeting the requirements of Rule 73-056, complete with a service riser for the filter which meets all the requirements of Rule 340-71-220(3) (b) (C).**

**(c) [(d)] Construction.** Septic tank construction shall comply with minimum standards set forth in ~~[rules 340-73-025 and 340-73-030]~~ **Division 73 of Chapter 340**, unless otherwise authorized in writing by the Department.

- (d) Double Compartment.** **Where a septic tank is preceded by a sewage ejector pump, the tank shall be constructed as a two (2) compartmentalized tank. The first compartment shall be not less than two thirds the required tank capacity. All other requirements of these rules apply. An effluent filter shall be installed on the outlet of the tank.**

**(4) [(5)] Distribution Techniques.** Disposal trenches shall be constructed according to one of the following methods:

- (a) Gravity Fed Equal Distribution (including Loop) ~~[system].~~  
~~[(Diagrams 3, 4 and 5)]~~

(A) ~~[The] E[e]qual distribution [system]~~ shall be used on generally level ground. All trenches and piping shall be level within a tolerance of plus or minus one (1) inch. All lateral piping shall be at the same elevation.

(B) A pressure operated hydrosplitter may be used to achieve equal distribution.

(C) To determine the total useable area of the soil absorption facility, the Agent shall take the sum of the lengths of the parallel disposal trenches plus the lengths of a maximum of two (2) disposal trenches intersecting the parallel trenches.

(b) Serial Distribution [System]. ~~[(Diagrams 1 and 2)]~~

~~[The] S[s]erial distribution [system]~~ is generally used on sloping ground. Each trench shall be level within a tolerance of plus or minus one (1) inch. Serial distribution may be a combination of equal distribution and serial distribution.

(c) Pressurized Distribution Systems. ~~[See]~~Refer to rule 340-71-275, for pressurized distribution requirements.

(5) ~~[(6)]~~ Distribution Boxes and Drop Boxes:

(a) Construction. Construction of distribution boxes and drop boxes shall comply with minimum standards in rules 340-73-035 ~~[through]~~and 340-73-040.

(b) Foundation. All distribution boxes and drop boxes shall be bedded on a stable, level base.

(c) In all gravity distribution techniques, the connection of the effluent piping to the distribution piping shall include at least one distribution or drop box or other device acceptable to the Agent as a means for locating and monitoring the disposal field.

(6) ~~[(7)]~~ Dosing Tanks:

(a) Construction of dosing tanks shall comply with the minimum standards in Rules 340-73-025 and 340-73-050, unless otherwise authorized in writing by the Department on a case-by-case basis.

(b) Each dosing tank shall be installed on a stable, level base.

(c) Each dosing tank shall be provided with at least one [a] watertight riser and manhole cover, extending to the ground surface or above. Provision shall be made for securely fastening the manhole cover, unless the manhole cover weighs at least 50 pounds.

~~[(d)] At the discretion of the Agent, a removable plug may be placed in the top of the septic tank's inlet sanitary tee, and a trench ten (10) feet long and otherwise constructed the same as a standard disposal trench may be used to provide air and gas exchange from the dosing tank, providing:~~

~~(A) Ground and surface water will not infiltrate through the gravel filled trench into the dosing tank, and~~

~~(B) The invert elevation of the perforated pipe in the ten (10) foot trench is one (1) foot higher than the invert elevation of the septic tank's inlet sanitary tee; and~~

~~(C) The design flow for the system does not exceed six hundred (600) gallons per day.]~~

(d) ~~(e)~~ Dosing tanks located in high groundwater areas shall be weighted or provided with an antibuoyancy device to prevent flotation.

(7) ~~(8)~~ Disposal Trenches. [~~(Diagrams 1, 2, 3, 4, 5, 11, and 12)~~]:

(a) Disposal trenches shall be constructed in accordance with the standards contained in the following table, unless otherwise allowed or required within a specific rule of this division:

~~(A) Maximum length of trench ..... 125 feet]~~

(A) ~~(B)~~ Minimum bottom width of trench ..... 24 inches

(B) ~~(C)~~ Minimum depth of trench, using:

(i) Equal or loop distribution ..... 18 inches

(ii) Serial distribution ..... 24 inches

(iii) Pressure distribution ..... 18 inches

(C) ~~(D)~~ Maximum depth of trench ..... 36 inches

(D) ~~(E)~~ Minimum distance of undisturbed earth between disposal trenches ..... 8 feet

(b) The bottom of the disposal trench shall be level within a tolerance of plus or minus one (1) inch.

(c) When the sidewall within the disposal trench has been smeared or compacted, sidewalls shall be raked to insure permeability.

(d) Trenches shall not be constructed in a manner that would allow septic tank effluent to flow backwards from the distribution pipe to undermine the distribution box, the septic tank, or any portion of the distribution unit.

(e) Drain media [~~Filter material~~] shall extend the full width and length of the disposal trench to a depth of not less than twelve (12) inches. There shall be at least six (6) inches of drain media [~~filter material~~] under the distribution pipe and at least two (2) inches over the distribution pipe.

- (f) Prior to backfilling the trench, the drain media [~~filter material~~] shall be covered with filter fabric, untreated building paper, or other material approved by the Agent.
- (g) Where trenches are installed in [~~loamy~~] sandy loam or coarser soils, filter fabric or other non-degradable material approved by the Agent shall be used to [~~line the trench sidewall and~~] cover the drain media [~~filter material~~].

(8) [~~(9)~~] Trench Backfill:

- (a) The installer shall assume responsibility for backfilling the system. Backfill shall be carefully placed to prevent damage to the system.
- (b) A minimum of six (6) inches of backfill is required, except in serial systems where twelve (12) inches is required.
- (c) Backfill shall be free of large stones, frozen clumps of earth, masonry, stumps, or waste construction materials, or other materials that could damage the system.

(9) [~~(10)~~] Header Pipe. (Rule 340-73-060) Header pipe shall be watertight, have a minimum diameter of three (3) [~~four (4)~~] inches, and be bedded on undisturbed earth. Where distribution boxes or drop boxes are used, header pipe shall be at least four (4) feet in length.

(10) [~~(11)~~] Distribution Pipe (Rule 340-73-060):

- (a) Distribution pipes shall have a minimum diameter of three (3) [~~four (4)~~] inches.
- (b) Each disposal trench shall have distribution piping that is centered in the trench and laid level within a tolerance of plus or minus one (1) inch.
- (c) Distribution piping, which complies with standards in rule 340-73-060, may consist of perforated bituminized fiber, perforated plastic, clay tile or concrete tile.
- (d) All perforated pipe shall be installed with centerline markings up.
- (e) Concrete tile and clay tile shall be laid with grade boards and with one-quarter (1/4) inch open joints. The top one-half (1/2) of the joints shall be covered with strips of treated building paper, tar paper, tile connectors, spacers, collars or clips, or other materials approved by the Agent.

(11) [~~(12)~~] Effluent Sewer. (Rule 340-73-060): The effluent sewer shall extend at least five (5) feet beyond the septic tank before connecting to the distribution unit. It shall be installed with a minimum fall of four (4) inches per one hundred (100) feet, but in no instance shall there be less than two (2) inches of fall from one end of the pipe to the other. In addition, there must be a minimum difference of 8 inches between the invert of the septic tank outlet and the invert of the header to the distribution pipe of the highest lateral in a serial distribution disposal field or the invert of the header pipe to the distribution pipes of an equal distribution disposal field.



(12) [~~(13)~~] Large Systems. Systems with a projected daily sewage flow greater than two thousand five hundred (2,500) gallons shall be designed in accordance with requirements set forth in rule 340-71-520.

340-71-260 ALTERNATIVE SYSTEMS, GENERAL.

- ~~[(1) For the purpose of these rules "Alternative System" means any Commission approved on-site sewage disposal system used in lieu of the standard subsurface system.]~~
- ~~[(2) "Sewage Stabilization Ponds" and "Land Irrigation of Sewage" are alternative systems available through the Water Pollution Control Facilities (WPCF) permit program.]~~
- [~~(3)~~] (1) Unless otherwise noted, all rules pertaining to the siting, construction, and maintenance of standard subsurface systems shall apply to alternative systems.
- [~~(4)~~] (2) General Requirements:
- (a) Periodic Inspection of Installed Systems. Where required by rule of the Commission, periodic inspections of installed alternative systems shall be performed by the Agent. An inspection fee may be charged.
  - (b) A report of each inspection shall be prepared by the Agent. The report shall list system deficiencies and correction requirements and timetables for correction. A copy of the report shall be provided promptly to the system owner. Necessary follow-up inspections shall be scheduled.

340-71-265 CAPPING FILLS. [~~Diagram 10~~]

~~[(1) For the purposes of this rule, "Capping Fill" means a system where the disposal trench effective sidewall is installed a minimum of twelve (12) inches into natural soil below a soil cap of specified depth and texture.]~~

(1) [~~(2)~~] Criteria for Approval. In order to be approved for a capping fill system, each site must meet all the following conditions:

- (a) Slope does not exceed twelve (12) percent.
- (b) Temporary water table is not closer than eighteen (18) inches to the ground surface at anytime during the year. A six (6) inch minimum separation must be maintained between the bottom of the disposal trench and the temporary water table.
- (c) Where a permanent water table is present, a minimum four (4) feet separation shall be maintained between the bottom of the disposal trench and the water table.
- (d) Where material with rapid or very rapid permeability is present, a minimum eighteen (18) inches separation shall be maintained between the bottom of the disposal trench and soil with rapid or very rapid permeability.
- (e) Effective soil depth is eighteen (18) inches or more below the natural soil surface.
- (f) Soil texture from the ground surface to the layer that limits effective soil depth is no finer than silty clay loam.
- (g) A minimum six (6) inch separation shall be maintained between the bottom of the disposal trench and the layer that limits effective soil depth.
- (h) The system can be sized according to effective soil depth in Table 4.

(2) [~~(3)~~] Installation Requirements. The cap shall be constructed pursuant to permit requirements. Unless otherwise required by the Agent, construction sequence shall be as follows:

- (a) The soil shall be examined and approved by the Agent prior to placement. The texture of the soil used for the cap shall be of the same textural class, or of one textural class finer, as the natural topsoil.
- (b) Construction of capping fills shall occur between June 1 and October 1 unless otherwise allowed by the Agent. The upper eighteen (18) inches of natural soil must not be saturated or at a moisture content which causes loss of soil structure and porosity when worked.
- (c) The disposal area and the borrow site shall be scarified to destroy the vegetative mat.
- (d) The system shall be installed as specified in the construction permit. There shall be a minimum ten (10) feet of separation between the edge of the fill and the absorption facility.

- (e) Filter fabric shall be used between the drain media and the soil cap, unless otherwise authorized by the agent on a case by case basis.
- (f) [~~(e)~~] Fill shall be applied to the fill site and worked in so that the two (2) contact layers (native soil and fill) are mixed. Fill material shall be evenly graded to a final depth of ten (10) inches over the drain media for an equal system, or sixteen (16) inches over the drain media for a serial system [gravel]. This is to allow for appropriate settled depths. Both initial cap and repair cap may be constructed at the same time.
- (g) [~~(f)~~] The site shall be landscaped according to permit conditions and be protected from livestock, automotive traffic or other activity that could damage the system.
- (3) [~~(4)~~] Required Inspections. Unless waived by the Agent, the following minimum inspections shall be performed for each capping fill installed:
- (a) Both the disposal area and borrow material must be inspected for scarification, soil texture, and moisture content, prior to cap construction.
  - (b) Pre-cover inspection of the installed absorption facility.
  - (c) After cap is placed, to determine that there is good contact between fill material and native soil (no obvious contact zone visible), adequate depth of material, and uniform distribution of fill material.
  - (d) Final inspection, after landscaping or other erosion control measures are established. A Certificate of Satisfactory Completion may be issued at this point.

340-71-270 EVAPOTRANSPIRATION-ABSORPTION (ETA) SYSTEMS. [~~Diagram 6 & 7~~]

~~[(1)] For the purpose of these rules "Evapotranspiration Absorption System" means an alternative system consisting of a septic tank or other treatment facility, effluent sewer and a disposal bed or disposal trenches, designed to distribute effluent for evaporation, transpiration by plants, and by absorption into the underlying soil.]~~

~~(1)~~ ~~[(2)]~~ Criteria for Approval. ETA systems will only be approved for waste flows which do not exceed 600 gallons per day and which meet criteria for residential strength. Installation permits may be issued for ~~[evapotranspiration absorption (ETA)]~~ ETA systems on sites that meet all of the following conditions:

~~(a)~~ The soil has moist matrix values and chromas greater than 2 within the first twelve (12) inches of the soil profile.

~~(b)~~ ~~[(a)]~~ Mean annual precipitation does not exceed twenty-five (25) inches.

~~(c)~~ ~~[(b)]~~ There exists a minimum of thirty (30) inches of moderately-well to well drained soil. The subsoil at a depth of twelve (12) inches and below shall be fine textured.

~~(d)~~ ~~[(c)]~~ Slope shall not be less than six (6) percent nor more than ~~[does not exceed]~~ fifteen (15) percent. Exposure may be taken into consideration.

~~(2)~~ ~~[(3)]~~ Criteria for System Design. ETA beds shall be designed under the following criteria:

(a) Beds shall be sized using a minimum eight hundred fifty (850) square feet of bottom surface area per one hundred fifty (150) gallons of projected daily sewage flow in areas where annual precipitation is fifteen (15) to twenty-five (25) inches, or six hundred (600) square feet of bottom surface area per one hundred fifty (150) gallons of projected daily sewage flow in areas where annual precipitation is less than fifteen (15) inches.

(b) Beds shall be installed not less than twelve (12) inches nor deeper than twenty-four (24) inches into natural fine textured soil on the downhill side and not more than thirty-six (36) inches deep on the uphill side.

(c) A minimum of one (1) distribution pipe shall be placed in each bed.

(d) The surface shall ~~[(e)]~~ be seeded according to permit conditions.

~~[(e)] Other bed construction standards contained in Diagrams 6 and 7 shall apply.]~~

~~(e)~~ The bottom of the system shall be a minimum of six (6) inches above the layer that limits effective soil depth.

~~(f)~~ Laterals in the system shall not be further than ten (10) feet apart and shall not be further than five (5) feet from the side of the excavated bed or trench.

~~(g)~~ The bed or trench shall be within two (2) inches of level.

- (h) A minimum of twelve (12) inches of drain media is to be installed in the trench.
- (i) Filter fabric or material approved by the Agent shall cover the drain media before the system is covered with soil.
- (j) The system is to be covered with soil approved by the Agent. The soil cover depth is to be a minimum of twelve (12) inches.

340-71-275 PRESSURIZED DISTRIBUTION SYSTEMS.

- (1) Pressurized distribution systems receiving residential strength wastewater may be permitted on any site meeting the requirements for installation of a standard subsurface sewage disposal system, or other sites where this method of effluent distribution is preferable and all the following minimum site conditions can be met.
- (2) Except as provided in OAR 340-71-220 [~~(2)~~] (1)(c), pressurized distribution systems shall be used where depth to soil as defined in OAR 340-71-100 [~~(114)~~] (139)(a) and (b) is less than thirty-six (36) inches and the minimum separation distance between the bottom of the disposal trench and soil as defined in OAR 340-71-100 [~~(114)~~] (139)(a) and (b) is less than eighteen (18) inches.
- (3) Pressurized distribution systems installed in soil as defined in OAR 340-71-100 [~~(114)~~] (139)(a) and (b) in areas with permanent water tables shall not discharge more than four hundred fifty (450) gallons of effluent per one-half (1/2) acre per day except where:
  - ~~(a) A split waste system is proposed to serve a single family dwelling on a lot of record existing prior to January 1, 1974, which has sufficient area to accommodate a gray water pressurized distribution split waste system; or~~
  - (a) [(b)] Groundwater is degraded and designated as a non-developable resource by the State Department of Water Resources; or
  - (b) [(e)] A detailed hydrogeological study discloses loading rates exceeding four hundred fifty (450) gallons per one-half (1/2) acre per day would not increase the nitrate-nitrogen concentration in the groundwater beneath the site, or at any down gradient location, above five (5) milligrams per liter.
- (4) Materials and Construction:
  - (a) General:
    - (A) All materials used in pressurized systems shall be structurally sound, durable, and capable of withstanding normal stresses incidental to installation and operation.
    - (B) Nothing in these rules shall be construed to set aside applicable building, electrical, or other codes. An electrical permit and inspection from the Department of Commerce or the municipality with jurisdiction (as defined in ORS 456.750(5)) is required for pump wiring installation.
  - (b) Pressurized Distribution Piping. Piping, valves and fittings for pressurized systems shall meet the following minimum requirements:
    - (A) All pressure transport, manifold, lateral piping, and fittings shall meet or exceed the requirements for [Class 160] PVC 1120 pressure pipe as identified in ASTM Specification D2241. For pipe diameters of two inches or less, the minimum pressure rating shall be 200 pounds per square inch (psi); for diameters greater than two inches, the minimum pressure rating shall be 160 psi.

- (B) Pressure transport piping shall be uniformly supported along the trench bottom, and at the discretion of the Agent, it shall be bedded in sand or other material approved by the Agent. A minimum eighteen (18) gauge green jacketed tracer wire or green color coded metallic locate tape, shall be placed above piping when crossing property lines or entering public property or right of way.
  - (C) Orifices shall be located on top of the pipe, except as noted in 4(b)(I) of this section.
  - (D) The ends of lateral piping shall be constructed with long sweep elbows or equal method to bring the end of the pipe to ground level. The ends of the pipe shall be provided with threaded plugs or caps.
  - (E) All joints in the manifold, lateral piping, and fittings shall be solvent welded, using the appropriate joint compound for the pipe material. Pressure transport piping may be solvent welded or rubber ring jointed.
  - (F) An isolation[gate] valve shall be placed on the pressure transport pipe, in or near the dosing tank, when appropriate.
  - (G) A check valve shall be placed between the pump and the gate valve, when appropriate.
  - (H) All orifices shall be covered by a protective, durable, non-corrosive orifice shield designed to keep orifices from being blocked by drain media or other system components. The shields shall be removable for access to the orifices.
  - (I) Where conditions include but are not limited to, extended freezing temperatures, temporary or seasonal use, or effluent characteristics, the Agent may specify alternate orifice orientation, and/or valve arrangements.
  - (J) Where the operation of a pump could result in siphonage of effluent to below the normal off level of the pump, an anti-siphon measure, in the form of a non-discharging valve, designed for the specific purpose, shall be used. The anti-siphon valve shall be installed and operated in accordance with manufacturer's specifications.
- (c) Disposal Trench Sizing and Construction:
- (A) A system using disposal trenches shall be designed and sized in accordance with the requirements of OAR 340-71-220 (2) [~~(3)~~].
  - (B) Disposal trenches shall be constructed using the specifications for the standard disposal trench unless otherwise allowed by the Department on a case-by-case basis.



- (C) Pressure lateral piping shall have not less than six (6) inches of drain media [~~filter material~~] below, nor less than four (4) inches of drain media [~~filter material~~] above the piping.
- (D) The [~~sides of the trench and~~] top of the drain media [~~filter material~~] shall be [~~lined or~~] covered with filter fabric, or other nondegradable material permeable to fluids that will not allow passage of soil particles coarser than very fine sand. In unstable soils [~~finer textured than loamy sand~~], lining the sidewall may [~~not~~] be required.
- (d) Seepage Bed Construction:
- (A) Seepage beds may only be used in soil as defined in OAR 340-71-100 [~~(114) (a) and~~] (139) (b) as an alternative to the use of disposal trenches, for flows less than or equal to 600 gallons per day.
- (B) The effective seepage area shall be based on the bottom area of the seepage bed. The minimum area shall be determined [~~as follows:~~] on the basis of 200 square feet minimum per 150 gallons per day waste flow.
- [~~Seepage Bed Area = R x F x S~~
- Where:
- ~~R = BOD<sub>5</sub> of Wastewater divided by 200 mg/L, or TSS of Wastewater divided by 150 mg/L, whichever has the higher value. In no case, however, may the value of R be less than 1.~~
- ~~F = Design Peak Daily Sewage Flow in gallons divided by 150 gallons.~~
- ~~S = Size factor. Seepage beds shall use a factor of 200 square feet.]~~
- (C) Beds shall be installed not less than eighteen (18) inches (twelve (12) inches with a capping fill) nor deeper than thirty-six (36) inches into the natural soil. The seepage bed bottom shall be level.
- (D) The top of the drain media [~~filter material~~] shall be [~~lined or~~] covered with filter fabric, or other nondegradable material that is permeable to fluids but will not allow passage of soil particles coarser than very fine sand.
- (E) Pressurized distribution piping shall have not less than six (6) inches of drain media [~~filter material~~] below, nor less than four (4) inches of drain media [~~filter material~~] above the piping.
- (F) Pressurized distribution piping shall be horizontally spaced not more than four (4) feet apart, and not more than two (2) feet away from the seepage bed sidewall. At least two (2) parallel pressurized distribution pipes shall be placed in the seepage bed.

- (G) A minimum of ten (10) feet of undisturbed earth shall be maintained between seepage beds.
- (e) Notwithstanding other requirements of this rule, when the projected daily sewage flow is greater than two thousand five hundred (2500) gallons the Department may approve other design criteria it deems appropriate.
- (5) Hydraulic Design Criteria. Pressurized distribution systems shall be designed for appropriate head and capacity:
  - (a) Head calculations shall include maximum static lift, pipe friction and orifice head requirements:
    - (A) Static lift where pumps are used shall be measured from the minimum dosing tank level to the level of the perforated distribution piping.
    - (B) Pipe friction shall be based upon a Hazen Williams coefficient of smoothness of 150. All pressure lateral piping and fittings shall have a minimum diameter of two (2) inches unless submitted plans and specifications show a smaller diameter pipe is adequate. ~~[The head loss across a lateral with multiple evenly spaced orifices may be considered equal to one third (1/3) of the head loss that would result if the entrance flow were to pass through the length of the lateral.]~~
    - (C) There shall be a minimum head of five (5) feet at the remotest orifice and no more than a ~~[fifteen (15)]~~ ten (10) percent head variation between nearest and remotest orifice in an individual unit.
  - (b) The capacity of a pressurized distribution system refers to the rate of flow given in gallons per minute (gpm):
    - (A) Lateral piping shall have discharge orifices drilled a minimum diameter of one-eighth (1/8) inch, and evenly spaced at a distance not greater than twenty-four (24) inches in coarse textured soils or greater than four (4) feet in finer textured soils.
    - (B) The system shall be dosed at a rate not to exceed twenty (20) percent of the projected daily sewage flow.
    - (C) The effect ~~[affect]~~ of back drainage of the total volume of effluent within the pressure distribution system shall be evaluated for its impact upon the dosing tank and system operation.

**340-71-280 SEEPAGE TRENCH SYSTEM.**

~~[(1) For the purpose of these rules "Seepage Trench System" means a system with disposal trenches with more than six (6) inches of filter material below the distribution pipe.]~~

(1) ~~[(2)]~~ Criteria for Approval. Construction permits may be issued by the Agent for seepage trench systems on lots created prior to January 1, 1974, for sites that meet all the following conditions:

- (a) Groundwater degradation would not result.
- (b) Lot or parcel is inadequate in size to accommodate a standard subsurface disposal system with a projected flow of four hundred fifty (450) gallons per day.
- (c) All other requirements for standard subsurface systems can be met.

(2) ~~[(3)]~~ Design Criteria:

- (a) The seepage trench may have a maximum depth of forty-two (42) inches;
- (b) The seepage trench system shall be sized according to the following formula:

Length of seepage trench = (4) x (length of standard disposal trench) divided by (3 + 2D), where D = depth of drain media ~~[filter material]~~ below distribution pipe in feet. Maximum depth of drain media ~~[filter material]~~ (D) shall be two (2) feet.

- (c) The projected daily sewage flow shall be limited to a maximum of four hundred fifty (450) gallons.

340-71-285 REDUNDANT SYSTEMS. [~~Diagram 11~~]

~~[(1) For the purpose of these rules "Redundant Disposal Field System" means a system in which two (2) complete disposal systems are installed, the disposal trenches of each system alternate with each other and only one system operates at any given time.]~~

(1) [~~(2)~~] Criteria for Approval. Construction installation permits may be issued by the Agent for redundant disposal field systems to serve single family dwellings on sites that meet all the following conditions:

- (a) The lot or parcel was created prior to January 1, 1974; and
- (b) There is insufficient area to accommodate a standard system.

(2) [~~(3)~~] Design Criteria:

- (a) Each redundant disposal system shall contain two (2) complete disposal fields.
- (b) Each disposal field shall be adequate in size to accommodate the projected daily sewage flow from the dwelling.
- (c) A minimum separation of ten (10) feet (twelve (12) feet on centers) shall be maintained between disposal trenches designed to operate simultaneously, and a minimum separation of four (4) feet (six (6) feet on centers) shall be maintained between adjacent disposal trenches.
- (d) The system shall be designed to alternate between the disposal fields with the use of a diversion valve or other method approved by the Agent.

340-71-290 CONVENTIONAL SAND FILTER SYSTEMS.

~~[(1) For the purpose of these rules:~~

- ~~(a) "Conventional sand filter" means a filter with two (2) feet or more of medium sand designed to filter and biologically treat septic tank or other treatment unit effluent from a pressure distribution system at an application rate not to exceed one and twenty three hundredths (1.23) gallons per square foot sand surface area per day, applied at a dose not to exceed twenty (20) percent of the projected daily sewage flow.~~
- ~~(b) "Medium sand]" means a mixture of sand with 100 percent passing the 3/8 inch sieve, 90 percent to 100 percent passing the No. 4 sieve, 62 percent to 100 percent passing the No. 10 sieve, 45 percent to 82 percent passing the No. 16 sieve, 25 percent to 55 percent passing the No. 30 sieve, 5 percent to 20 percent passing the No. 50 sieve, 10 percent or less passing the No. 60 sieve, 4 percent or less passing the No. 100 sieve.~~
- ~~(c) "Sand filter system" means the combination of septic tank or other treatment unit, a dosing system with effluent pump and controls, or dosing siphon, piping and fittings, sand filter, and absorption facility used to treat and dispose of sewage.]~~

(1) Criteria for Approval. A conventional sand filter, which meets the requirements of this rule may be approved for a construction-installation permit, provided that wastewater strength does not exceed that of residential strength wastewater and the system is to serve a single family dwelling. All others shall be constructed pursuant to a WPCF Permit.

(2) Inspection and Maintenance Requirements.

- (a) Each sand filter system installed under, and those filters installed under OAR 340-71-038, may be inspected by the Agent periodically [annually]. The Agent may charge an inspection [waive the annual evaluation] fee each year the sand filter [field evaluation work] is inspected [not performed].
- (b) Any permit issued by the Agent shall include requirements for periodic inspection and maintenance. Reports of this maintenance may be required to be submitted to the Agent.

(3) Sites Approved for Sand Filter Systems. Sand filters may be permitted on any site meeting requirements for standard subsurface sewage disposal systems contained under OAR 340-71-220, or where standard or pressurized disposal trenches would be used, or where selected by the Agent, and all the following minimum site conditions can be met:

NOTE: Groundwater levels shall be predicted using Standards in Rule 71-130 (24).

- (a) The highest level attained by temporary water would be:
- (A) Twelve (12) inches or more below ground surface where gravity equal distribution trenches are used. Pressurized distribution trenches may be used to achieve equal distribution on slopes up to twelve (12) percent; or
  - (B) Twelve (12) inches or more below ground surface on sites requiring serial distribution where disposal trenches are covered by a capping fill, provided: trenches are excavated twelve (12) inches into the original soil profile, slopes are twelve (12) percent or less, and the capping fill is constructed according to provisions under OAR 340-71-265(2) and 340-71-265(3) (a) through (c); or
  - (C) Eighteen (18) inches or more below ground surface on sites requiring serial distribution where standard serial distribution trenches are used.
- (b) The highest level attained by a permanent water table would be equal to or more than distances specified as follows:

Soil Groups	*Minimum Separation Distance from Bottom Effective Seepage Area
(A) Gravel, sand, loamy sand, sandy loam .....	24 inches
(B) Loam, silt loam, sandy clay loam, clay loam .....	18 inches
(C) Silty clay loam, silty clay, clay, sandy clay .....	12 inches

**NOTE:** Shallow disposal trenches (placed not less than twelve (12) inches into the original soil profile) may be used with a capping fill to achieve separation distances from permanent groundwater. The fill shall be placed in accordance to the provisions of OAR 340-71-265(2) and 340-71-265(3) (a) through (c).

- (c) ~~Permanent water table levels shall be determined in accordance with methods contained in subsection 340-71-220(1)(d).~~ Sand filters installed in soils as defined in OAR 340-71-100(139) ~~[(114)]~~, in areas with permanent water tables shall not discharge more than four hundred fifty (450) gallons of effluent per one-half (1/2) acre per day except where:

~~[(A) A split waste system is proposed to serve a single family dwelling on a lot of record existing prior to January 1, 1974, which has sufficient area to accommodate a gray water sand filter split waste system, or]~~

- (A) ~~[(B)]~~ Groundwater is degraded and designated as a non-developable resource by the State Department of Water Resources, or

(B) [~~(C)~~] A detailed hydrogeological study discloses loading rates exceeding four hundred fifty (450) gallons per one-half (1/2) acre per day would not increase nitrate-nitrogen concentration in the groundwater beneath the site, or any down gradient location, above five (5) milligrams per liter.

(d) Soils, fractured bedrock or saprolite diggable with a backhoe occur such that a standard twenty-four (24) inch deep trench can be installed and, in the judgment of the Agent, the soils, fractured bedrock, or saprolite is permeable to the extent that effluent will absorb adequately so as not to hinder the performance of the filter or disposal field. The Agent may require that an absorption test be conducted to determine the permeability of the bedrock or saprolite. Test methods must be acceptable to the Department.

(e) Where slope is thirty (30) percent or less, except as specified in subsection (f) or this section.

(f) A sand filter may be installed on land slopes up to 45% where:

(A) the installation is for a single family dwelling and is sized in accordance with sand filter disposal area criteria;

(B) the soil is diggable with a backhoe to a depth of at least 36" (12" below the bottom of the trench); and

(C) the temporary water table is at least 30" below the ground surface (6" below the bottom of the trench).

(g) [~~(f)~~] Setbacks in Table 1 can be met, except the minimum separation distance between the sewage disposal area and surface public waters shall be no less than fifty (50) feet.

(4) The minimum length of standard disposal trench per one hundred fifty (150) gallons projected daily sewage flow required for a sand filter absorption facility is indicated in the following table:

	Soil Groups	Linear Feet
(a)	Gravel, sand, loamy sand, sandy loam .....	35
(b)	Loam, silt loam, sandy clay loam, clay loam .....	45
(c)	Silty clay loam, silty clay, sandy clay, clay .....	50
(d)	<u>Permeable</u> saprolite or fractured bedrock ....	50

- (e) High shrink-swell clays (Vertisols) ..... 75

- NOTE:**
- a- Disposal trenches in Vertisols shall contain twenty-four (24) inches of drain media [~~filter material~~] and twenty-four (24) inches of soil backfill.
  - b- On lots created prior to January 1, 1974, that have insufficient suitable area within which to install an absorption facility sized in accordance with this table, seepage trenches may be used at [~~may at~~] the Agent's discretion [~~utilize seepage trenches~~], providing: the design criteria and limitations contained in OAR 340-71-280(2) [~~(2)~~] are met; the soil is not a high shrink-swell clay; and all other provisions of this rule are met except that a temporary water table shall be thirty (30) inches or more below the ground surface.
  - c- Seepage trenches in Vertisols are limited to areas with an annual rainfall of 25 inches or less, with minimum slopes of 5 percent, and a temporary water table which is at least 48 inches below the ground surface.

- (5) Sand Filter without a bottom;  
Sites with saprolite, fractured bedrock, gravel or soil textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter, that meet all other requirements of section 340-71-290(3) may, utilize either a conventional sand filter without a bottom or a sand filter in a trench that discharges biologically treated effluent directly into those materials. The application rate shall be based on the design sewage flow in OAR 340-71-295(1) and the basal area of the sand in either type of sand filter. A minimum twenty-four (24) inch separation shall be maintained between a water table and the bottom of the sand filter. The water table shall be no less than 24 inches below the ground surface at any time of the year. In the judgment of the Agent, the saprolite, fractured bedrock, gravel or soil, shall be permeable over the basal area to the extent that effluent will absorb adequately so as not to hinder the performance of the filter. The Agent may require that an absorption test be conducted to determine the permeability of the basal area. Test methods must be acceptable to the Department.

- (6) Materials and Construction:
- (a) All materials used in sand filter system construction shall be structurally sound, durable and capable of withstanding normal installation and operation stresses. Component parts subject to malfunction or excessive wear shall be readily accessible for repair and replacement.
  - (b) All filter containers shall be placed over a stable level base.



- (c) In a gravity operated distribution system, a [areas of temporary groundwater] [at least twelve (12) inches of] vertical separation [unsaturated soil] [shall be maintained] between the invert of the underdrain piping outlet and the top of the drain media in the uppermost disposal trench shall be maintained that will not allow effluent to back up into the sand filter base before surfacing over the uppermost disposal trench. [bottom of the sand filter and top of the disposal trench].
- (d) Piping and fittings for the sand filter distribution system shall be as required under pressure distribution systems, OAR 340-71-275.
- (e) The specific requirements for septic tanks, dosing tanks, etc. are found in OAR 340-71-220.
- (f) The requirements in OAR 340-71-295 shall be met.
- (g) A bottomless sand filter unit does not require a minimum 10 foot separation between the original and replacement unit.
- (7) "Graveless Absorption Method"
- (a) Following a sand filter, disposal trenches may be constructed without the use of drain media, to the following criteria:
  - (A) twelve (12) inches wide by twelve (12) inches deep incorporating pressurized distribution and a chamber constructed of half sections of twelve (12) inch diameter plastic irrigation pipes (PIP);
  - (B) Trenches shall be level end to end and across their width;
  - (C) Trenches shall be installed on minimum 10 foot centers maintaining at least eight feet of undisturbed earth between parallel trenches;
  - (D) Piping shall be minimum one inch diameter PVC meeting all the requirements of these rules;
  - (E) Distribution piping shall be perforated with one eighth inch diameter orifices on maximum two foot centers at the twelve o'clock position. The hydraulic design shall provide at least two feet residual head at the distal orifice;
  - (F) The chambers shall be constructed of twelve inch PIP rated at 43 pounds per square inch meeting the appendix standards of ASTM D-2241. Each line shall be equipped with a minimum six inch diameter inspection port;
  - (G) The chambers shall be installed so as to prevent sinking into the soil at the base of the trench.
- (b) Except as noted in subsection (a) of this section, all other construction criteria, including disposal field sizing for sand filter systems, shall apply.
- (c) This disposal field option may be used wherever a standard or alternative type disposal trench is authorized by current rules for sand filter systems, except for Vertisols.

340-71-295 CONVENTIONAL SAND FILTER DESIGN AND CONSTRUCTION.  
[~~(Diagrams 8 and 9)~~]

(1) Sewage Flows:

- (a) Design sewage flows for a system proposed to serve a commercial facility shall be limited to twenty-five hundred (2,500) ~~[six hundred (600)]~~ gallons or less, with a wastewater strength not exceeding that defined for residential waste strength, unless otherwise authorized in writing by the Department.
- (b) Design sewage flows for a system proposed to serve a single family dwelling shall be in accordance with the provisions of OAR 340-71-220 ~~[(3)]~~ (2) (a).

(2) Minimum Filter Area.

- (a) A sand filter proposed to serve a single family dwelling shall have an effective medium sand surface area of not less than three hundred sixty (360) ~~[six (366)]~~ square feet. If the design sewage flow exceeds four-hundred fifty (450) gallons per day, the medium sand surface area shall be determined with the following equation:

$$\text{Area} = (\text{projected daily sewage flow}) \text{ divided by } \del{[(1.23)]} \underline{(1.25) \text{ gallons per square foot}}$$

- (b) A sand filter proposed to serve a commercial facility shall be sized on the basis of projected peak daily sewage flow. If the waste strength is projected to be greater than residential strength wastewater, as defined in this Division, a pre-treatment device shall be required which will reduce the BOD<sub>5</sub>, TSS, and oil and grease to no more than 300, 150, and 25 mg/l, respectively, and to eliminate any other contaminants prior to treatment in the sand filter system. ~~[and the strength of the wastewater, using the following equation:~~

$$\text{Area} = (\text{projected peak daily sewage flow}) \times (R) \text{ divided by } \del{(1.23)}$$

where R = ~~BOD<sub>5</sub> of Wastewater divided by 200 mg/L, or TSS of Wastewater divided by 150 mg/L, whichever has the higher value. In no case, however, may the value of R be less than one (1)].~~

- (3) Design Criteria: ~~[Sand filter container, piping, medium sand, gravel, gravel cover, and soil crown material for a sand filter system discharging to disposal trenches shall meet minimum specifications indicated in Diagrams 8 and 9 unless otherwise authorized in writing by the Department.]~~

- (a) The interior base of the filter container shall be level or constructed at a grade of one (1) percent or less to the underdrain piping elevation.
- (b) Except for sand filters without a bottom, underdrain piping shall be installed in the interior of the filter container at the lowest elevation. The piping shall be level or on a grade of one (1) percent or less to the point of passage through the filter container.

- (c) The underdrain piping and bottom of the filter container shall be covered with a minimum of six (6) inches of drain media or underdrain media. Where underdrain media is used, the underdrain piping shall be enveloped in an amount and depth of drain media to prevent migration of the underdrain media to the pipe perforations.
- (d) Where drain media is used at the base of the filter, it shall be covered by a layer of filter fabric meeting the specifications found in Rule 73-041. Where underdrain media is used, filter fabric is not required or prescribed.
- (e) A minimum of twenty-four (24) inches of approved sand filter media shall be installed over the filter fabric or underdrain media. Where medium sand is used, the sand shall be damp at the time of installation. The top surface of the media shall be level. Unless waived by the Agent, the sand filter media proposed for each sand filter, shall be sieve tested to determine conformance with the criteria outlined in these rules. The sieve analysis shall be done in accordance with ASTM C-136, Standard Methods for Sieve Analysis of Fine and Coarse Aggregate, and in conjunction and accordance with ASTM C-117, Standard Test Method for Materials Finer than No. 200 Sieve in Mineral Aggregates by Washing. A sieve analysis by a qualified party shall be conducted and report issued prior to each sand filter installation.
- (f) There shall be a minimum of three (3) inches of clean drain media below the distribution laterals, and sufficient media above the laterals equal to or covering the orifice shields to provide a smooth even cover. Underdrain media may be used in lieu of drain media.
- (g) Within the zone described in (f) of this rule, a pressurized distribution system, meeting the requirements of Sections 275(4) and (5), shall be constructed, with the following requirements:
  - (A) Distribution laterals shall be spaced on maximum thirty (30) inch centers. Orifices shall be placed such that there is one orifice for each six (6) square feet of sand surface area.
  - (B) The distribution laterals shall have not less than three (3) inches of drain or underdrain media below the piping.
  - (C) The ends of the distribution laterals shall be designed and constructed with a means to perform flushing of the piping, collectively or individually, through the operation of a non-corrosive and accessible valve. The flushed effluent may be discharged to the septic tank or into the sand filter.
  - (D) The diameters of the distribution manifold and laterals shall not be less than one half (1/2) inch diameter.
  - (E) A sand filter shall be dosed at a rate not to exceed ten (10) percent of the projected daily sewage flow.

- (h) The top of the media in which the pressure distribution system is installed shall be covered with filter fabric meeting the specifications found in Rule 73-041.
  - (i) The top of the sand filter area shall be backfilled with a soil cover, free of rock, vegetation, wood waste, etc. The soil cover shall have a textural class no finer than loam, unless otherwise authorized by the Agent. The soil cover shall have a minimum depth of six (6) inches and a maximum depth of twelve (12) inches.
  - (j) The passage of all piping through the sand filter container shall be done in a watertight manner.
- (4) Container Design and Construction:
- (a) A reinforced concrete container consisting of [~~floor and walls as shown in Diagrams 8 and 9 is required~~] watertight walls and floors shall be used where water tightness is necessary to prevent groundwater from infiltrating into the filter or to prevent the effluent from exfiltrating from the filter, except as provided in these rules. The container structure may require a building permit for construction.
  - (b) Container may be constructed of materials other than concrete where equivalent function, workmanship, watertightness and at least a twenty (20) year service life can be documented:

    - (A) Flexible membrane liner (FML) materials must have properties which are at least equivalent to thirty (30) mil un-reinforced polyvinyl chloride (PVC) described in OAR 340-73-085. To be approved for [~~filter~~] installation, FML materials must:

      - (i) Have field repair instructions and materials which are provided to the purchaser with the liner; and
      - (ii) Have factory fabricated "boots" suitable for field bonding onto the liner to facilitate the passage of piping through the liner in a waterproof manner.
    - (B) Where accepted for use, flexible sheet membrane liners shall be installed as required in OAR 340-73-085.
- (5) Internal Pump Option: Where the effluent from a sand filter is to be discharged by means of a pump to another treatment unit, a distribution unit, or to an absorption facility, the design and construction of the filter may include provisions for an internal pump station, providing the following conditions are met:
- (a) The location, design, and construction of the pump station does not conflict with rules for design, construction and operation of a sand filter system.
  - (b) The design and construction of the pump, discharge plumbing, controls, and alarm shall meet the requirements of Rule 73-055, except Sections (4)(d) and (4)(h).

- (c) The pump and related apparatus shall be housed in a corrosion resistant vault designed to withstand the stresses places upon it and not allow the migration of drain media, sand, or underdrain media to its interior. The vault shall have a durable, affixed floor. The vault shall provide watertight access to finished grade with a diameter equal to that of the vault and designed to receive treated effluent from an elevation equal to that of a gravity discharging sand filter.
- (d) The depth of underdrain media and the operating level of the pump cycle and alarm shall not allow effluent to come within two inches of the bottom of the sand filter media. The pump off level shall be no lower than the invert of the perforations of the underdrain piping.
- (e) The internal sand filter pump shall be electrically linked to the sand filter dosing apparatus in such a manner as to prevent effluent from entering the sand filter in event the internal sand filter pump fails.

340-71-300 OTHER SAND FILTER DESIGNS.

- (1) Other sand filters which vary in design from the conventional sand filter may be authorized by the Department if they can be demonstrated to produce comparable effluent quality.
- (2) Sand filters authorized under this Section, which serve a single family dwelling with residential strength wastewater, may be approved for a construction/installation permit. All other sand filters shall be constructed and operated under a renewable WPCF permit issued pursuant to Rule 162 of this Division.
- ~~(3)~~ ~~(2)~~ Pre-Application Submittal. Prior to applying for a construction permit for a variation to the conventional sand filter the Department must approve the design. To receive approval the applicant shall submit the following required information to the Department:
  - (a) Effluent quality data. Filter effluent quality samples shall be collected and analyzed by a testing agency acceptable to the Department using procedures identified in the latest edition of "Standard Methods for the Examination of Wastewater," published by the American Public Health Association, Inc. The duration of filter effluent testing shall be sufficient to ensure results are reliable and applicable to anticipated field operating conditions. The length of the evaluation period and number of data points shall be specified in the test report. The following parameters shall be addressed:
    - (A) BOD<sub>5</sub>;
    - (B) TSS;
    - (C) Fecal coliform;
    - (D) Nitrogen (Ammonia, Nitrate and Total Kjeldahl Nitrogen).
  - (b) A description of unique technical features and process advantages.
  - (c) Design criteria, loading rates, etc.
  - (d) Filter media characteristics.
  - (e) A description of operation and maintenance details and requirements.
  - (f) Any additional information specifically requested by the Department.
- ~~(4)~~ ~~(3)~~ Construction Procedure. Following pre-application approval, a permit application shall be submitted in the usual manner. Applications shall include applicable drawings, details and written specifications to fully describe proposed construction and allow system construction by contractors. Included must be the specific site details peculiar to that application, including soils data, groundwater type and depth, slope, setbacks, existing structures, wells, roads, streams, etc. Applications shall include a manual for homeowner operation and maintenance of the system.

340-71-302 RECIRCULATING GRAVEL FILTER (RGF)

- (1) WPCF Permit Required. A WPCF wastewater disposal permit is required for all recirculating gravel filters. The permit will establish the effluent limitations to be achieved. No construction shall take place until the permit has been issued and final construction plans have been approved by the Department. Conceptual (preliminary) plans shall accompany all applications.
- (2) Plan Approval Required. Facility construction plans shall be submitted to the Department for review. Review of plans shall follow OAR Division 52 procedures.
- (3) Technical Requirements and Guidelines. The following sections describe minimum technical requirements and guidelines for design. Use of "shall" denotes a requirement. Use of "should" implies a guideline to be followed unless sufficient justification is provided to the contrary as determined by the plan approver.

The Department will consider variations in design established in this section on a case-by-case basis. Plans which vary in design shall include evidence that the proposed system will meet the limitations established in the permit, and that the facility can be reliably operated and maintained.

(a) Filter Design and Dosing:

- (A) Filter area shall be sized based on a maximum organic load. The area shall mean basal or bottom area. For residential strength wastewater which has been pre-treated through a septic tank, the maximum hydraulic load shall be 5 gal/ft<sup>2</sup>/day.
- (B) For BOD<sub>5</sub> waste strengths stronger than residential strength wastewater but not exceeding 400 mg/l (milligrams per liter), the filter size shall be increased proportionately.
- (C) Higher strength wastewaters shall be pre-treated or will require special consideration. The concentration of greases and oil applied shall in no case exceed 30 mg/l.

(b) Filter Media:

- (A) Where carbonaceous BOD<sub>5</sub> removal must be at least 85%, based upon the raw sewage concentration applied to the septic tank, and nitrification of wastewater is necessary, a filter media of the following fine gravel shall be required: 3 feet of very fine washed gravel, 100% passing a 3/8" sieve with an Effective Size between 3 and 5 millimeters, and an Uniformity Coefficient of 2 or less. Washed shall mean that negligible fines (less than 1.0%) pass the No. 10 sieve.

- (B) Where additional removal of BOD<sub>5</sub> and denitrification is intended or required, a treatment media of the following coarse sand may be approved: 2 feet of very coarse washed sand, 100% passing a 3/8" sieve with an Effective Size between 1.5 and 2.5 millimeters, and an Uniformity Coefficient of 2 or less. Washed shall mean that negligible fines (less than 4.0%) pass the No. 100 sieve.
- (C) Sieves used in gradation analysis shall include 3/8 inch, 1/4 inch, and Nos. 4, 6, 8, 10, 50 and 100.
- (D) For each project, and prior to shipment of any media to the project site, the permittee shall take fresh samples of the intended media. The permittee shall have a laboratory gradation analysis performed, and the gradation data plotted on semi-log paper as a gradation curve. Lab data, gradation curve, and a 5 pound sample of the media shall be submitted to the Department for approval. Only Department approved media shall be used.
- (E) A quality assurance plan shall be proposed by the designer to guarantee only approved media is placed. This plan shall be included in the project specifications.
- (F) The Department may approve minor deviations in media gradations on a project-by-project basis.
- (c) Filter media shall be overlain by a three (3) inch bed of 1/2" to 3/4" washed gravel. It shall be only lightly covering the distribution piping. Unless otherwise authorized, each orifice is covered by an orifice shield. Orifice shields shall prevent aerial spray drift.
- (d) Filter dosing shall be with a low pressure distribution piping system operating under adequate head to pressurize the system. This should usually be 5 feet. Each lateral pipe end shall terminate with a screwed plug or cap, accessible for removal and flushing. Wherever practical a valved backflush system shall be installed to flush groups of laterals back to a septic tank or elsewhere.
- (e) Pressure distribution piping should be spaced 2 feet on center in a parallel grid. Orifice spacing should be each 2 feet on laterals. Piping grid edges should be within one foot of the filter basal edge.
- (f) Filter media shall be underlain by an 6 inch bed of a 3/8 to 3/4 inch washed gravel underdrain media. There shall be no filter fabric over the underdrain media.
- (g) Perforated collection pipes shall be bedded in the underdrain media. Pipes shall be 4 inch minimum diameter with no filter fabric wrap. There should be at least 15 lineal feet of collection pipe for each 225 square feet of filter basal area.



(h) The filter container shall be watertight to suit the design conditions. Underflow shall be contained. Groundwater shall be excluded. A concrete container may be used. Other materials may be used where equivalent function, workmanship, watertightness and at least a twenty (20) year service life can be expected.

(4) Recirculation/Dilution Tank

(a) A recirculation tank receives septic tank effluent and underflow from the filter. A pumping system at this tank delivers flow to the filter dose piping network according to a project design.

The recirculation tank volume (measured from tank floor to soffit) shall be numerically equal to the projected daily sewage flow volume.

(b) The recirculation ratio at design flow shall be not less than four (4). Recirculation ratio is the daily volume of recycle divided by design daily volume of the wastewater.

A fabricated "T" or "Splitter T" float valve located in the recirculation tank should be used whenever possible. Minimum recirculation tank liquid volume should be no less than 80% of the gross tank volume when a float valve is used.

Alternatively, a splitter basin using orifice or weir control may be used where required and reasonable to divide underflow 20% to disposal and 80% to recycle on a daily basis. Orifice control should be used wherever possible. Minimum recirculation tank liquid volume should be no less than 50% of the gross tank volume when a splitter basin is used.

(c) An evaluation and design for overflow and surge control at the recirculation tank shall be included in each design.

(d) A high water alarm shall be included in the recirculation tank immediately below the overflow level. A latching electrical relay shall retain the alarm - audible and/or visual - until acknowledged by a site attendant.

(e) Parallel pump start/stop electric controls (usually floats) should be installed to correct any unforeseen high liquid level event and keep sewage contained. This pump start function merely precludes overflow and shall operate in parallel with the start/stop function of a timer. It shall not interfere with or depend upon a timer position.

(f) All areas of the filter should be wetted 48 times a day, or each 30 minutes, to achieve the recirculation ratio of at least four (4).

(g) The recirculation tank shall be demonstrated as watertight. Testing should be witnessed by the designer. Test protocol shall be included in the plans.

(h) Access onto the filter shall be restricted. This should be a fence. Surface water entry onto the filter shall be positively prevented by design and construction.

- (i) Access openings to the recirculation tank shall be provided at each end. Larger tanks should have additional openings. The least dimension of any access opening shall be 18 inches. Larger openings shall be provided if partially obstructed with piping, etc. Provision shall be made to remove dregs (settleable solids). Pumps shall be readily removable and replaceable without demolition of piping etc.
- (5) Operation and Maintenance (O&M) Manual. The permittee shall submit a draft Operation and Maintenance manual before the facility commences operation. The facility designer should do actual preparation. This manual shall incorporate as-constructed details, and be completed in final form for the owner's use following final inspection of the completed facility. It shall include a statement of Inspection and Certification of Proper Construction. The designer shall affirm that the facility is operating as intended based upon actual field inspection at end of construction and start of operations. If there are any negative findings, these shall be reported and correction proposed by the permittee.

340-71-305 SAND FILTER SYSTEM OPERATION AND MAINTENANCE.

- (1) Sand filters serving a single family dwelling with wastewater not exceeding "Residential Waste Strength" shall be subject to the following provisions:
  - (a) ~~[(1)]~~ Sand filter operation and maintenance tasks and requirements shall be as specified on the Certificate of Satisfactory Completion. Where a conventional sand filter system or other sand filter system with comparable operation and maintenance requirements is used, the system owner shall be responsible for the continuous operation and maintenance of the system.
  - (b) ~~[(2)]~~ The owner of a sand filter system shall inspect the septic tank and other components of the system at least every three years for sludge accumulation, pump calibration and cleaning of the laterals. The septic tank shall be pumped when there is an accumulation of floating scum less than three (3) inches above the bottom of the outlet tee or an accumulation of sludge less than six (6) inches below the bottom of the outlet tee. [~~provide the Agent written verification that the system's septic tank has been pumped at least once each forty eight (48) months by a licensed sewage disposal service business. Service start date shall be assumed to be the date of issuance of the Certificate of Satisfactory Completion.~~] The owner shall provide the Agent certification of tank pumping within two (2) months of the date required for pumping. Pump calibration, cleaning of the laterals and other maintenance shall be completed as necessary.
  - (c) ~~[(3)]~~ No permit shall be issued for the installation of any other sand filter which in the judgment of the Department would require operation and maintenance significantly greater than the conventional sand filter unless arrangements for system operation and maintenance meeting the approval of the Director have been made which will ensure adequate operation and maintenance for the life of the system. Each permitted installation may be inspected by the Agent at least every twelve (12) months and checked for necessary corrective maintenance. The Agent may waive the annual system evaluation fee during years when the field evaluation work is not performed.
- (2) Operation and maintenance requirements for sand filters serving Commercial facilities shall be specified in a WPCF permit issued pursuant to Rule 162 of this Division.
- (3) Operation and Maintenance Standards for all sand filters. The owner/purchaser of a sand filter system shall assume the continuous responsibility to preserve the installation as near as practical in its "as built" state. This responsibility includes the control or erosion of any "mound," the control and removal of large perennial plants, the fencing out of livestock and the control of burrowing animals.

**340-71-310 STEEP SLOPE SYSTEMS.**

- (1) General conditions for approval. An on-site system construction permit may be issued by the Agent for a steep slope system to serve a single-family dwelling on slopes in excess of thirty (30) percent provided all the following requirements can be met:
  - (a) Slope does not exceed forty-five (45) percent.
  - (b) The soil is well drained with no evidence of saturation.
  - (c) The soil has a minimum effective soil depth of sixty (60) inches.
- (2) Construction Requirements:
  - (a) Seepage trenches shall be installed at a minimum depth of thirty (30) inches and at a maximum depth of thirty-six (36) inches below the natural soil surface on the downhill side of the trench, and contain a minimum of eighteen (18) inches of filter material and twelve (12) inches of native soil backfill.
  - (b) The system shall be sized at a minimum of seventy-five (75) linear feet per one hundred fifty (150) gallons projected daily sewage flow.

**340-71-315 TILE DEWATERING SYSTEM.**

- (1) General conditions for approval. On-site system construction permits may be issued by the Agent for tile dewatering systems provided the following requirements can be met:
  - (a) The site has a natural outlet that will allow a field tile installed on a proper grade around the proposed absorption facility to daylight above annual high water.
  - (b) Soils must be silty clay loam or coarser textured and be drainable, with a minimum effective soil depth of at least thirty (30) inches in soils with temporary groundwater, and at least seventy-two (72) inches in soils with permanent groundwater.
  - (c) Slope does not exceed three (3) percent.
  - (d) All other requirements for the system, except depth to groundwater, can be met. However, after the field collection drainage tile is installed, the groundwater levels shall conform to the requirements of OAR 340-71-220(1) or 340-71-290(3).
- (2) Construction Requirements:
  - (a) Field collection drainage tile shall be installed on a uniform grade of two-tenths to four-tenths (0.2-0.4) feet of fall per one hundred (100) feet, and either
    - (A) A minimum of thirty-six (36) inches deep in soils with temporary groundwater, or
    - (B) A minimum of sixty-six (66) inches deep in soils with permanent groundwater.
  - (b) Maximum drainage tile spacing shall be seventy (70) feet center to center.
  - (c) Minimum horizontal separation distance between the drainage tile and absorption facility shall be twenty (20) feet.
  - (d) Field collection drainage tile shall be rigid smooth wall perforated pipe, or other approved pipe material accepted by the Agent, with a minimum diameter of four (4) inches.
  - (e) Field collection drainage tile shall be enveloped in clean filter material to within thirty (30) inches of the soil surface in soils with permanent groundwater, or to within twelve (12) inches of the soil surface in soils with temporary groundwater. Filter material shall be covered with filter fabric, treated building paper or other nondegradable material approved by the Agent.
  - (f) Outlet tile shall be rigid smooth wall solid PVC pipe, meeting or exceeding ASTM Standard D-3034, with a minimum diameter of four (4) inches. ~~[The outlet end shall be protected by a short section of Schedule 80 PVC or ABS or metal pipe, and a flap gate or grill to exclude rodents.]~~ A flap gate or rodent guard may be required by the Agent.

- (g) A silt trap with a twelve (12) [~~thirty (30)~~] inch minimum diameter shall be installed between the field collection drainage tile and the outlet pipe unless otherwise authorized by the Department. The bottom of the silt trap shall be a minimum twelve (12) inches below the invert of the drainage pipe outlet.
- (h) The discharge pipe and tile drainage system are integral parts of the system, but do not need to meet setback requirements to property lines, wells, streams, lakes, ponds or other surface water bodies.
- (i) The Agent has the discretion of requiring demonstration that a proposed tile dewatering site can be drained prior to issuing a Construction-Installation permit.
- (j) The absorption facility shall use equal or pressurized distribution.

340-71-320 SPLIT WASTE METHOD.

~~[(1) For the purpose of these rules:~~

- ~~(a) "Split waste system" means a system where "black waste" sewage and "gray water" sewage from the same dwelling or building are disposed of by separate methods.~~
- ~~(b) "Black waste" means human body wastes including feces, urine, other extraneous substances of body origin and toilet paper.~~
- ~~(c) "Gray water" means household sewage other than "black wastes", such as bath water, kitchen waste water and laundry wastes.]~~

[(2)] Criteria for Approval. In a split waste method, wastes may be disposed of as follows:

(1) ~~[(a)]~~ Black wastes may be disposed of by the use of State Building Codes Division ~~[Department of Commerce]~~ approved nonwater-carried plumbing units such as recirculating oil flush toilets or compost toilets.

(2) ~~[(b)]~~ Gray water may be disposed of by discharge to:

- (a) ~~[(A)]~~ An existing on-site system which is not failing; or
- (b) ~~[(B)]~~ A new on-site system with a soil absorption facility two-thirds (2/3) normal size. A full size initial disposal area and replacement disposal area of equal size are required; or
- (c) ~~[(C)]~~ A public sewerage system.

340-71-325 GRAY WATER WASTE DISPOSAL SUMPS. [~~Diagrams 14 and 15~~]

~~[(1) For the purpose of these rules "gray water waste disposal sump" means a series of receptacles designed to receive hand-carried gray water for disposal into the soil.]~~

(1) [~~(2)~~] Criteria for Approval:

(a) Hand-carried gray water may be disposed of in gray water waste disposal sumps which serve facilities including but not limited to [~~such as~~] recreation parks, camp sites, [~~seasonal dwellings,~~] or construction sites where the projected daily gray water flow does not exceed ten (10) gallons per unit. Gray water or other sewage shall not be piped to the gray water waste disposal sump. Where projected daily sewage flow exceeds ten (10) gallons per unit, gray water shall be disposed of in facilities meeting requirements of OAR 340-71-320(2) [~~(b)~~].

(b) Gray water sumps may be used only where soil conditions are approved for such use by the Agent.

(c) Up to four (4) gray water waste disposal sumps may be constructed on the same property and at the same time for each construction-installation permit issued.

(2) [~~(3)~~] In campgrounds or other public use areas, gray water waste disposal sumps shall be identified as "sink waste disposal" by placard or sign in letters not less than three (3) inches in height and in a color contrasting with the background.



340-71-330 NONWATER-CARRIED FACILITIES.

~~[(1) For the purpose of these rules:~~

- ~~(a) "Nonwater carried waste disposal facility" means any toilet facility which has no direct water connection, including pit privies, vault privies and portable toilets.~~
- ~~(b) "Privy" means a structure used for disposal of human waste without the aid of water. It consists of a shelter built above a pit or vault in the ground into which human waste falls.~~
- ~~(c) "Portable toilet" means any self contained chemical toilet facility that is housed within a portable toilet shelter, and includes but is not limited to construction type chemical toilets.]~~

(1) ~~[(2)]~~ No person shall cause or allow the installation or use of a nonwater-carried waste disposal facility without prior written approval from the Agent.

**EXCEPTIONS:**

- a- Temporary use pit privies used on farms for farm labor shall be exempt from approval requirements.
- b- A Sewage Disposal Service business licensed pursuant to OAR 340-71-600 may install portable toilets without written approval of the Agent, providing all other requirements of this rule except Table 8 setbacks are met.

(2) ~~[(3)]~~ Non-water carried waste disposal facilities may be approved for temporary or limited use areas, including but not limited to ~~[such as]~~ recreation parks, camp sites, ~~[seasonal dwellings,]~~ farm labor camps, or construction sites, provided all liquid wastes can be handled in a manner to prevent a public health hazard and to protect public waters, provided further that the separation distances in Table 8 can be met.

**EXCEPTION:** The use of portable toilets shall not be allowed for seasonal dwellings.

(3) ~~[(4)]~~ Construction. Nonwater-carried waste disposal facilities shall be constructed in accordance with requirements contained in Rules 340-73-065 through 340-73-075.

(4) ~~[(5)]~~ Maintenance. Nonwater-carried waste disposal facilities shall be maintained to prevent health hazards and pollution of public waters.

(5) ~~[(6)]~~ General. No water-carried sewage shall be placed in nonwater-carried waste disposal facilities. Contents of nonwater-carried waste disposal facilities shall not be discharged into storm sewers, on the surface of the ground or into public waters.

(6) ~~[(7)]~~ Pit Privy:

- (a) Unsealed earth pit type privies may be approved where the highest level attained by groundwater shall not be closer than four (4) feet to the bottom of the privy pit.
- (b) The privy shall be constructed to prevent surface water from running into the pit.

(c) When the pit becomes filled to within sixteen (16) inches of the ground surface, a new pit shall be excavated and the old pit shall be backfilled with at least two (2) feet of earth.

(7) [~~(8)~~] No person shall cause or allow the installation or use of a portable toilet unless the pumping or cleaning of the portable toilet is covered by a valid and effective contract with a person licensed pursuant to ORS 454.695. Each portable toilet shall display the business name of the sewage disposal service that is responsible for servicing it.

340-71-335 CESSPOOLS AND SEEPAGE PITS. [~~Diagrams 16 and 17~~]

~~[(1) For the purpose of these rules:~~

~~(a) "Cesspool" means a lined pit which receives raw sewage, allows separation of solids and liquids, retains the solids and allows liquids to seep into the surrounding soil through perforations in the lining.~~

~~(b) "Seepage Pit" means a "cesspool" which has a treatment facility such as a septic tank ahead of it.]~~

(1) ~~[(2)]~~ Except as provided in OAR 340-71-401, construction of new cesspool sewage disposal systems in Oregon is prohibited.

(2) ~~[(3)]~~ Seepage pit sewage disposal systems may be used only to serve existing sewage loads and replace existing failing seepage pit and cesspool systems on lots that are inadequate in size to accommodate a standard system or other alternative on-site sewage systems. A construction-installation permit allowing replacement of the failing system shall not be issued if a sewerage system is both legally and physically available, as described in OAR 340-71-160(5)(f).

(3) ~~[(4)]~~ Construction Requirements:

(a) Each seepage pit shall be installed in a location to facilitate future connection to a sewerage system when such facilities become available.

(b) Maximum depth of seepage pits shall be thirty-five (35) feet below ground surface.

(c) The seepage pit depth shall terminate at least four (4) feet above the water table.

~~[(d) Other standards for seepage pit construction are as shown in diagrams 16 and 17.]~~

(4) ~~[(5)]~~ Notwithstanding the permit duration specified in section 340-71-160(9), a permit issued pursuant to this rule may be effective for a period of less than one (1) year from the date of issue if specified by the Agent.

340-71-340 HOLDING TANKS.

~~[(1)] For the purpose of these rules "Holding Tank" means a watertight receptacle designed to receive and store sewage to facilitate disposal at another location.]~~

(1) ~~[(2)]~~ Criteria for Approval. A holding tank requires a WPCF Permit. A WPCF permit for a holding tank ~~[Installation permits]~~ may be authorized ~~[issued]~~ by the Agent for holding tanks on sites that meet all the following conditions:

(a) Permanent Use:

- (A) The site cannot be approved for installation of a standard subsurface system; and
- (B) No community or area-wide sewerage system is available or expected to be available within five (5) years; and
- (C) The tank is intended to serve a small industrial or commercial building, or an occasional use facility such as a county fair or a rodeo; and
- (D) Unless otherwise allowed by the Department, the projected daily sewage flow is not more than two hundred (200) gallons; and
- (E) Setbacks as required for septic tanks can be met.

(b) Temporary Use:

- (A) In an area under the control of a city or other legal entity authorized to construct, operate, and maintain a community or area-wide sewerage system, a holding tank may be installed provided the application for permit includes a copy of a legal commitment from the legal entity that within five (5) years from the date of the application the legal entity will extend to the property covered by the application a community or area-wide sewerage system meeting the requirements of the Commission, and provided further that the proposed holding tank will otherwise comply with the requirements of these rules; or

~~[(B)] Installation of an approved on site system has been delayed by weather conditions; or]~~

(B) ~~[(C)]~~ The tank is to serve a temporary construction site.

(2) ~~[(3)]~~ General:

- (a) No building may be served by more than one (1) holding tank.
- (b) A single tax lot may be served by no more than one (1) holding tank unless the holding tanks are under control of a municipality as defined in Oregon Revised Statutes.

(3) ~~[(4)]~~ Design and Construction Requirements:

- (a) Plans and specifications for each holding tank proposed to be installed shall be submitted to the Agent for review and approval.

- (b) Each tank shall have a minimum liquid capacity of fifteen hundred (1,500) gallons.
- (c) Each tank shall:
  - (A) Comply with standards for septic tanks contained in rule[s] 340-73-025 [~~and 340-73-030~~].
  - (B) Be located and designed to facilitate removal of contents by pumping.
  - (C) Be equipped with both an audible and visual alarm, placed in a location acceptable to the Agent, to indicate when the tank is seventy-five (75) percent full. The audible alarm only may be user cancelable.
  - (D) Have no overflow vent at an elevation lower than the overflow level of the lowest fixture served.
  - (E) Be designed for antibuoyancy if test hole examination or other observations indicate seasonally high groundwater may float the tank when empty.

(4) [~~(5)~~] Special Requirements. The application for [~~an installation~~] permit shall contain:

- (a) A copy of a contract with a licensed sewage disposal service company which shows the tank will be pumped periodically, at regular intervals or as needed, and the contents disposed of in a manner and at a facility approved by the Department.
- (b) Evidence that the owner or operator of the proposed disposal facility will accept the pumpings for treatment and disposal.
- [~~(c) A record of pumping dates and amounts pumped shall be maintained by both the treatment facility owner and the sewage disposal service, and upon request, made available to the Agent.~~]

(5) [~~(6)~~] Inspection Requirements. Each holding tank [installed under this rule, and those tanks installed under OAR 340-71-037(3)] may be inspected annually. An [~~alternative system evaluation fee~~] annual compliance determination fee in accordance with the fee schedule in OAR 340-71-140 shall be charged [~~for each annual inspection~~].

340-71-345 AEROBIC SYSTEMS.

~~[(1)]~~ For the purpose of these rules:

- ~~(a)~~ "Aerobic Sewage Treatment Facility" means a sewage treatment plant which incorporates a means of introducing air (oxygen) into the sewage so as to provide aerobic biochemical stabilization during a detention period.
- ~~(b)~~ "Mechanical Oxidation Sewage Treatment Facility" means an aerobic sewage treatment facility.]

(1) ~~[(2)]~~ Criteria for Approval. Aerobic sewage treatment facilities may be approved for a construction-installation permit provided all the following criteria are met:

- (a) The facility to be served is a single family dwelling.  
~~[daily sewage flow to be treated is less than five thousand (5000) gallons].~~
- (b) Wastewater strength does not exceed the maximum limits for residential strength wastewater.
- (c) ~~[(b)]~~ The aerobic sewage treatment facility (plant) is part of an approved on-site sewage disposal system.
- (d) ~~[(e)]~~ The plant has been tested pursuant to the current version of the National Sanitation Foundation (NSF) Standard No. 40, relating to Individual Aerobic Wastewater Treatment Plants, and been found to conform with Class I or Class II and other requirements of the standard. In lieu of NSF testing, the Department may accept testing by another agency which it considers to be equivalent.
- (e) ~~[(d)]~~ The property owner records in the county land title records, in a form approved by the Department, an easement and a covenant in favor of the State of Oregon.
  - (A) Allowing its officers, agents, employees and representatives to enter and inspect, including by excavation, the aerobic sewage treatment facility; and
  - (B) Acknowledging that proper operation and maintenance of the plant is essential to prevent failure of the entire on-site sewage disposal system; and
  - (C) Agreeing for himself and his heirs, successors and assigns, to hold harmless, indemnify and defend the State of Oregon, its officers, representatives, employees and agents for any and all loss and damage caused by installation or operation of the system; and
  - (D) Agreeing not to put the land to any conflicting use.

(2) ~~[(3)]~~ The plant shall:

- (a) Have a visual and audible alarm, placed at a location acceptable to the Agent, which are activated upon an electrical or mechanical malfunction.
- (b) Have a minimum rated hydraulic capacity equal to the daily sewage flow or five hundred (500) gallons per day, whichever is greater.

- (c) Have aeration and settling compartments constructed of durable material not subject to excessive corrosion or decay.
- (d) Have raw sewage screening or its equivalent.
- (e) Have provisions to prevent surging of flow through the aeration and settling compartments.
- (f) Have access to each compartment for inspection and maintenance.
- (g) Have provisions for convenient removal of solids.
- (h) Be designed to prevent:
  - (A) Short circuiting of flow.
  - (B) Deposition of sludge in the aeration compartment.
  - (C) Excessive accumulation of scum in the settling compartment.
  - (D) The passage of untreated sewage into the disposal field if the plant malfunctions.

(3) [~~(4)~~] Disposal Field Sizing. Disposal fields serving systems employing aerobic sewage treatment facilities shall be sized according to Tables 4 and 5 of these rules. Where a NSF Class I plant is installed, the linear footage of disposal trench installed may be reduced by twenty (20) percent, provided a full sized standard system replacement area is available.

(4) [~~(5)~~] Operation and Maintenance:

- (a) The supply of parts must be locally available for the expected life of the unit.
- (b) The supplier of the plant shall be responsible for providing operation training to the owner.
- (c) The supplier of the plant shall provide the owner with an operation and maintenance (O & M) manual for the specific plant installed.
- (d) The owner shall remove excess solids from the plant at least once per year, or more frequently if recommended by the O & M manual.

(5) [~~(6)~~] Inspection Requirements. Each aerobic sewage treatment facility installed under this rule shall be inspected by the Agent at least once per year (See OAR 340-71-260 (2) [~~(4)~~ (a)]).

(6) Aerobic systems which serve commercial facilities, or which do not meet the above requirements shall be permitted only by WPCF Permit. Operation and maintenance requirements shall be established in the permit.

~~[340 71 350 LOW FLUSH TOILETS.]~~

~~Permits issued for installation of an on site system shall allow a reduction of twenty five (25) percent in the seepage area provided:~~

- ~~(1) The single family dwelling or commercial facility utilizes two (2) quarts or less low volume flush toilets approved by the State Department of Commerce; and~~
- ~~(2) A full sized initial and replacement drainfield area is available.]~~

~~[340 71 355 GRAVEL LESS DISPOSAL TRENCH SYSTEMS.]~~

- ~~(1) Gravel less disposal trench systems may be permitted on any site providing:~~
  - ~~(a) The site fully complies with the criteria for installation of a standard subsurface sewage disposal system, as identified in OAR 340 71 220(2); and~~
  - ~~(b) The site has sandy loam, loamy sand, or sand soil textures; and~~
  - ~~(c) It serves a single family dwelling.~~
- ~~(2) Distribution pipes for gravel less disposal trench systems shall conform to the requirements in OAR 340 73 060(2) (f).~~
- ~~(3) Gravel less disposal trench systems shall be constructed pursuant to the standards identified in OAR 340 71 220.~~

~~EXCEPTIONS:~~

- ~~a The bottom trench width shall not be less than eighteen (18) inches wide; and~~
- ~~b The provisions of OAR 340 71 220(8) (e), (f), and (g) are not applicable.]~~



340-71-360 DISPOSAL TRENCHES IN SAPROLITE.

- (1) General Conditions for Approval. An on-site system construction-installation permit may be issued for a system to serve a single family dwelling on a site with soil shallow to saprolite provided requirements in either subsection (a) or (b) of this section can be met.
  - (a) Slope does not exceed thirty (30) percent:
    - (A) The saprolite is sufficiently weathered so that it can be textured, crushed, or broken with hand pressure to a depth of twenty-four (24) inches and can be dug from a test pit wall with a spade or other hand tool to a depth of forty-eight (48) inches; and
    - (B) Clay films or iron coatings with moist values of five (5) or less and moist chromas of four (4) or more and/or organic coatings with moist values of three (3) or less and moist chromas of two (2) or more occur on fracture surfaces of the saprolite to a depth of forty-eight (48) inches.
  - (b) Slope is in excess of thirty (30) percent but does not exceed forty-five (45) percent:
    - (A) The saprolite is sufficiently weathered so that it can be textured, crushed, or broken with hand pressure to a depth of twenty-four (24) inches and can be dug from a test pit wall with a spade or other hand tool to a depth of sixty (60) inches; and
    - (B) Clay films or iron coatings with moist values of five (5) or less and moist chromas of four (4) or more and/or organic coatings with moist values of three (3) or less and moist chromas of two (2) or more occur on fracture surfaces of the saprolite to a depth of sixty (60) inches.

(2) Construction Requirements.

- (a) Standard disposal trenches shall be installed where slope does not exceed thirty (30) percent:
  - (A) Standard disposal trenches shall be installed at a minimum depth of twenty-four (24) inches and a maximum depth of thirty (30) inches below the natural soil surface and contain twelve (12) inches of filter material and a minimum of twelve (12) inches of native soil backfill.
  - (B) Standard disposal trenches shall be sized at a minimum of one hundred (100) linear feet per one hundred fifty (150) gallons projected daily sewage flow.
- (b) Seepage trenches shall be installed where slope is in excess of thirty (30) percent but does not exceed forty-five (45) percent:
  - (A) Seepage trenches shall be installed at a minimum depth of thirty (30) inches and at a maximum depth of thirty-six (36) inches below the natural soil surface and contain a minimum of eighteen (18) inches of filter material and twelve (12) inches of native soil backfill.
  - (B) Seepage trenches shall be sized at a minimum of seventy-five (75) linear feet per one hundred fifty (150) gallons of projected daily sewage flow.

340-71-400 GEOGRAPHIC AREA SPECIAL CONSIDERATIONS.

(1) River Road -- Santa Clara Area, Lane County:

(a) Within the areas set forth in subsection (b) of this section the Agent may issue either construction permits for new subsurface sewage disposal systems or favorable reports of evaluation of site suitability to construct systems under the following circumstances:

(A) The system complies with all rules in effect at the time the permit is issued; and

(B) The system will not in itself contribute, or in combination with other new sources after April 18, 1980, contribute more than sixteen and seven tenths (16.7) pounds nitrate-nitrogen per acre per year to the local groundwater. The applicant shall assure compliance with this condition by showing his ownership or control of adequate land through easements or equivalent.

(b) Subsection (a) of this section shall apply to all of the following area generally known as River Road -- Santa Clara, and defined by the boundary submitted by the Board of County Commissioners for Lane County, which is bounded on the south by the City of Eugene, on the west by the Southern Pacific Railroad, on the north by Beacon Drive, and on the east by the Willamette River, and containing all or portions of T16S, R4W, Sections 33, 34, 35, 36; T17S, R4W, Sections 1, 2, 3, 4, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25; and T17S, R1E, Sections 6, 7, 18, Willamette Meridian.

(c) This rule is subject to modification or repeal by the Commission on an area-by-area basis upon petition by the appropriate local agency or agencies. Such petition either shall provide reasonable evidence that development using subsurface sewage disposal systems will not cause unacceptable degradation of groundwater quality or surface water quality or shall provide equally adequate evidence that degradation of groundwater or surface water quality will not occur as a result of such modification or repeal.

(d) Subsections (a) and (b) of this section shall not apply to any construction permit application based on a favorable report of evaluation of site suitability issued by the Agent pursuant to ORS 454.755(1)(b), where such report was issued prior to the effective date of this rule.

(2) General North Florence Aquifer, North Florence Dunal Aquifer Area, Lane County:

(a) Within the area set forth in subsection (2)(b) of this rule, the agent may issue construction permits for new on-site sewage disposal systems or favorable reports of evaluation of site suitability to construct individual or community on-site sewage disposal systems under the following circumstances:

(A) The lot and proposed system shall comply with all rules in effect at the time the permit or favorable report of site suitability is issued; or

- (B) The lot and proposed system complies with paragraph 2(a)(A) of this rule, except for the projected daily sewage loading rates, and the system in combination with all other previously approved systems owned or legally controlled by the applicant shall be projected by the Department to contribute to the local groundwater not more than fifty-eight (58) pounds nitrate-nitrogen  $\text{NO}_3\text{-N}$  per year per acre owned or controlled by the applicant.
- (b) Subsection (2)(a) of this rule shall apply to all of the following area hereby known as the General North Florence Aquifer of the North Florence Dunal Area and is defined by the hydrologic boundaries identified in the June 1982, 208 North Florence Dunal Aquifer Study, which is the area bounded on the west by the Pacific Ocean; on the southwest and south by the Siuslaw River; on the east by the North Fork of the Siuslaw River and the ridge line at the approximate elevation of four hundred (400) feet above mean sea level directly east of Munsel Lake, Clear Lake and Collard Lake; and on the north by Mercer Lake, Mercer Creek, Sutton Lake and Sutton Creek; and containing all or portions of T17S, R12W, Sections 27, 28, 33, 34, 35, 36, and T18S, T12W, sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 22, 23, 24, 25, 26, 27; W.M., Lane County, except that portion defined as the Clear Lake Watershed more particularly described by OAR 340-71-460(6)(f).
- (3) Lands Overlaying the Alsea Dunal Aquifer:
  - (a) Within the area set forth in subsection (3)(c) of this rule, the Agent may issue a construction permit for a new on-site sewage disposal system or a favorable report of evaluation of site suitability to construct a single on-site system on lots that were lots of record prior to January 1, 1981; or on lots in partitions or subdivisions that have received preliminary planning, zoning, and on-site sewage disposal approval prior to January 1, 1981, providing one of the following can be met:
    - (A) At the time the permit or favorable report of site suitability is issued the lot complies with OAR 340-71-100 through OAR 340-71-350 and OAR 340-71-410 through OAR 340-71-520; or
    - (B) The lot is found through site evaluation not to comply with OAR 340-71-100 through OAR 340-71-350 and OAR 340-71-410 through OAR 340-71-520, but does meet all of the following conditions when a pressurized seepage bed is utilized:
      - (i) Groundwater levels shall not be closer than four (4) feet from the ground surface or closer than three (3) feet from the bottom of the seepage bed.
      - (ii) The seepage bed shall be constructed in accordance with OAR 340-71-275(4) and (5).
      - (iii) The seepage bed shall be sized on the basis of two hundred (200) square feet of bottom area per one hundred fifty (150) gallons projected daily sewage flow.

- (iv) Projected daily sewage flows shall be limited to not more than three hundred seventy-five (375) gallons per lot, except those lots which have a certificate of favorable site evaluation which provides for a larger flow.
  - (v) All setbacks identified in Table 1 can be met, except that lots of record prior to May 1, 1973, shall maintain a minimum fifty (50) feet separation to surface public waters.
  - (vi) Sufficient area exists on the lot to install a seepage bed and a replacement seepage bed. The area reserved for replacement may be waived pursuant to the exception in OAR 340-71-150(4) (a) (B).
- (C) The lot is found through site evaluation not to comply with OAR 340-71-100 through OAR 340-71-350 and OAR 340-71-410 through OAR 340-71-520, but does meet all of the following conditions when a conventional sand filter without a bottom is utilized:
- (i) Groundwater levels shall not be closer than one (1) foot from the ground surface and not closer than one (1) foot from the bottom of the sand filter.
  - (ii) Sewage flows shall be limited to not more than three hundred seventy-five (375) gallons per day per lot, except those lots which have a certificate of favorable site evaluation which provides for a larger flow.
  - (iii) The sand filter shall be sized at one (1) square foot of bottom area for each gallon of projected daily sewage flow.
  - (iv) The conventional sand filter without a bottom shall be constructed in accordance with OAR 340-71-295(3).
  - (v) All setbacks identified in Table 1 can be met, except that lots of record prior to May 1, 1973, shall maintain a minimum fifty (50) feet separation to surface public waters.
  - (vi) Sufficient area exists on the lot to install a bottomless conventional sand filter and a replacement bottomless conventional sand filter. The area for replacement may be waived pursuant to the exception contained in OAR 340-71-150(4) (a) (B).
- (b) Within the area set forth in subsection (3)(c) of this rule, for lots created on or after January 1, 1981, and/or when the on-site system will serve a commercial facility, the Agent may issue a construction permit for a new on-site sewage disposal system or a favorable report of evaluation of site suitability if it is determined that all rules of the Commission can be met.

- (c) The Alsea Dunal Aquifer is defined as all the land bounded on the East by Highway 101, the Pacific Ocean on the West, and from Drift-wood Beach Wayside South to the southern tip of the Alsea Bay Spit.
  - (d) If the results of groundwater monitoring in the Alsea Dunal Aquifer indicate unacceptable levels of degradation or if it appears necessary or desirable to pursue development of the aquifer as a source of drinking water, sewage collection and off-site treatment and disposal facilities shall be installed unless further study demonstrates that such facilities are not necessary or effective to protect the beneficial use.
- (4) Christmas Valley Townsite, Lake County:
- (a) Within the area set forth in subsection (4) (b) of this rule, the agent may consider the shallow groundwater table, if present, in the same manner as a temporary water table when preparing and/or issuing site evaluation reports and construction-installation permits.
  - (b) The Christmas Valley Townsite is defined as all land within the Christmas Valley Townsite plat located within Section 9, 10, 11, 14, 15 and 16 of Township 27 South, Range 17 East, Willamette Meridian, in Lake County.
- (5) Clatsop Plains Aquifer, Clatsop County:

The Clatsop Plains Groundwater Protection Plan, prepared by R.W. Beck and Associates and adopted by Clatsop County, provides a basis for continued use of on-site sewage disposal systems while protecting the quality of groundwater for future water supplies. For the plan to be successful, the following components must be accomplished:

- (a) By not later than January 1, 1983, Clatsop County shall identify and set aside aquifer reserve areas for future water supply development containing a minimum of two and one half (2-1/2) square miles. The reserve areas shall be controlled so that the potential for groundwater contamination from nitrogen and other possible pollutants is kept to a minimum.
- (b) The Agent may issue construction installation permits for new on-site sewage disposal systems or favorable reports of site evaluation to construct on-site systems, within the area generally known as the Clatsop Plains, which is bounded by the Columbia River to the North; the Pacific Ocean to the west; the Necanicum River, Neawanna Creek, and County Road 157 on the south; and the Carnahan Ditch-Skipanon River and the foothills of the Coast Range to the east, providing:
  - (A) The lot or parcel was created in compliance with the appropriate comprehensive plan for Gearhart (adopted by County Ordinance 80-3), Seaside (adopted by County Ordinance 80-10), Warrenton (adopted by County Ordinance 82-15), or the Clatsop County plan adopted through Ordinance No. 79-10; and either
  - (B) The lot or parcel does not violate any rule of this Division; or

- (C) Lot or parcel does not violate the Department's Water Quality Management Plan or any rule of this Division, except the projected maximum sewage loading rate would exceed the ratio of four hundred fifty (450) gallons per one-half (1/2) acre per day. The on-site system shall be either a sand filter system or a pressurized distribution system with a design sewage flow not to exceed four hundred fifty (450) gallons per day; or
  - (D) The Department may approve the use of standard on-site systems to serve single family dwellings within planned developments or clustered-lot subdivisions providing:
    - (i) The planned development or clustered-lot subdivision is not located within Gearhart, Seaside, Warrenton, or their urban growth boundaries; and
    - (ii) The lots do not violate any rule of this Division, except the projected maximum sewage loading rate may exceed the ratio of four hundred fifty (450) gallons per acre per day; and
    - (iii) The Department is provided satisfactory evidence through a detailed groundwater study that the use of standard systems will not constitute a greater threat to groundwater quality than would occur with the use of sand filter systems or pressurized distribution systems.
- (6) Within areas east of the Cascade Range where the annual precipitation does not exceed twenty (20) inches, and after evaluating the site, the Agent may issue a construction-installation permit authorizing installation of a standard system to serve a single family dwelling, provided the requirements in subsections (6) (a) and (b) of this rule are met.

(a) Minimum Site Criteria:

- (A) The property is ten (10) [~~twenty (20)~~] acres or larger in size. The minimum parcel size considered under this rule is designated by the County, but in no event shall it be less than ten (10) acres. [~~with planning restrictions that prohibit division of the property into parcels containing less than twenty (20) acres;~~]
- [~~(B) [The property is not within an Urban Growth Boundary;~~]
- (B) [(C)] The slope gradient does not exceed thirty (30) percent;
- (C) [(D)] The soils are diggable with a backhoe to a depth of at least twenty-four (24) inches;
- (D) [(E)] The site is found to comply with the provisions of OAR 340-71-220 (1) [~~(2)~~] (b, e, f, g, h, and i).

- (b) Minimum Construction Requirements:
- (A) The system shall contain not less than two hundred twenty-five (225) linear feet of disposal trench for projected sewage flows not exceeding four hundred fifty (450) gallons per day. Larger sewage flows shall be sized on the basis of seventy-five (75) linear feet per each one hundred fifty (150) gallons of projected flow.
  - (B) The system shall be constructed and backfilled in compliance with OAR 340-71-220: sections ~~(3), (4), (5), (7) [(6)],~~ (8), (9), (10), and (11) [~~and (12)~~].
- (c) At the discretion and request of the owner or the owner's authorized representative, a single application may be submitted to the Agent for both a site evaluation report and a construction-installation permit. The application would include the sum of the fees for both activities, pursuant to OAR 340-71-140(1) (a) (A) and OAR 340-71-140(1) (b) (A) (i) [(iii)], as well as the following:
- (A) Favorable land use compatibility statement from the appropriate land use authority signifying that the proposed land use is compatible with the Land Conservation and Development Commission acknowledged comprehensive plan or complies with the statewide planning goals.
  - (B) Property development plan acceptable to the Agent showing the location of existing and proposed improvements, including the locations of the dwelling and sewage disposal system.
  - (C) All other exhibits the Agent finds are necessary to complete the application.
- (d) The Agent may waive the pre-cover inspection for a system installed pursuant to this section, provided the system installer [~~certifies in writing that the system was installed in accordance with the permit plans and conditions.~~] submits the following information to the Agent at the time construction of the system is complete:
- (A) A detailed and accurate as-built plan of the constructed system; and,
  - (B) A list of all material used in the construction of the system; and,
  - (C) A written certification (on a form acceptable to the Department) that the construction was in accordance with the permit and rules of the Commission.
- (7) Within areas east of the Cascade Range where the annual precipitation does not exceed twenty (20) inches, the Agent may issue a construction-installation permit authorizing installation of a standard system to serve a single family dwelling, provided the requirements in subsections (7) (a) and (b) of this rule are met. The Agent may waive the site evaluation for a single family dwelling provided:



(a) Minimum Site Criteria:

- (A) The property is eighty (80) acres or larger in size. The minimum parcel size considered under this rule is designated by the County, but in no event shall it be less than ten (80) acres.
- (B) The separation distance between the proposed on-site system and the nearest dwelling, other than that being served by the proposed system, is at least one-quarter mile;
- (C) The nearest property line to the proposed system is at least 100 feet, the nearest domestic water source is at least 200 feet, and the nearest surface public water is at least 200 feet; and,
- (D) In the opinion of the Agent, sufficient topographical and soils information, including but not limited to slope, terrain, landform, and rock outcrops, is submitted with the application to determine the property can be approved for on-site sewage disposal in conformance with the purpose of these rules as stated in 71-110.

(b) Minimum Construction Requirements:

- (A) Sizing requirements of Table 4 and Table 5 shall be followed as closely as possible. In any case, the system shall contain not less than two hundred twenty-five (225) linear feet of disposal trench for projected sewage flows not exceeding four hundred fifty (450) gallons per day. Larger sewage flows shall be sized on the basis of seventy-five (75) linear feet per each one hundred fifty (150) gallons of projected flow.
- (B) The system shall be constructed and backfilled as closely as possible to the requirements contained in OAR 340-71-220.

(c) At the request of the owner or the owner's authorized representative, a single application may be submitted to the Agent for both a site evaluation report and a construction-installation permit. The application would include the fee for a site evaluation, pursuant to OAR 340-71-140, as well as the following:

- (A) Favorable land use compatibility statement from the appropriate land use authority signifying that the proposed land use is compatible with the Land Conservation and Development Commission acknowledged comprehensive plan or complies with the statewide planning goals.
- (B) Property development plan acceptable to the Agent showing the location of existing and proposed improvements, including the locations of the dwelling and sewage disposal system.
- (C) All other exhibits the Agent finds are necessary to complete the application.
- (D) If the decision is made to waive the site evaluation, the fee will be transferred to the permit.

- (d) The Agent may waive the pre-cover inspection for a system installed pursuant to this section, provided the system installer submits the following information to the Agent at the time construction of the system is complete:

  - (A) A detailed and accurate as-built plan of the constructed system; and,
  - (B) A list of all material used in the construction of the system; and,
  - (C) A written certification (on a form acceptable to the Department) that the construction was in accordance with the permit and rules of the Commission.
  
- (e) The conditions for 340-71-400(7) shall be set forth in an addendum to the memorandum of agreement (contract) between the County and the Department.

340-71-401 MID-MULTNOMAH COUNTY, CESSPOOL AND SEEPAGE PIT USE.

- (1) This rule shall be applicable only within the area defined in Appendix B of the document entitled **Evaluation of Hearing Record for Proposal to Declare a Threat to Drinking Water in a Specifically Defined Area of Mid-Multnomah County Pursuant to ORS 454.275 et. seq., February 6, 1986.**
- (2) Favorable site evaluation reports and new construction-installation permits for cesspool and seepage pit sewage disposal systems may be issued within the area defined in section (1) of this rule, provided all of the following conditions are met:
  - (a) Construction of sewers and connection thereto is on schedule as defined in the Mid-Multnomah County Sewer Implementation Plan, September 1985.
  - (b) The total waste load discharged into cesspool and seepage pit sewage disposal systems within the affected area at any time does not exceed that indicated by the EQC Benchmark Removal Rate line in Figure 4-1, of Mid-Multnomah County Sewer Implementation Plan, September 1985, based on the assumption that fifty-six thousand (56,000) single family dwelling unit equivalent cesspool and seepage pit systems existed in the affected area at the beginning of 1985.
  - (c) Sewers are not available to serve the proposed development. Connection to sewers shall be made whenever practicable. Connection will be deemed practicable if sewers are physically available as defined in OAR 340-71-160(5)(f) unless otherwise allowed by the Agent.
  - (d) Any land division or subdivision development that involves construction of streets shall construct dry sewers at the time of development to minimize costs and disruption when connection to a sewer becomes possible. If in the judgment of the Agent construction of dry sewers is not practicable, the land division or subdivision may be approved for cesspools and seepage pits if funds in the amount of the cost of the needed dry sewer construction is placed in an interest bearing escrow account to be applied to construction of the sewers when appropriate under the schedule for sewer construction by the local governments.
  - (e) Cesspool or seepage pit systems shall not be authorized on any lot that is large enough to install a standard or other alternative on-site system.
  - (f) Site Criteria:
    - (A) The permanent water table is sixteen (16) feet or greater from the surface.
    - (B) Gravelly sand, gravelly loamy sand, or other equally porous material occurs in a continuous five (5) foot deep stratum within twelve (12) feet of the ground surface.
    - (C) A layer that limits effective soil depth does not overlay the gravel stratum.
    - (D) The site is found to comply with the provisions of OAR 340-71-220[~~(2)~~](1)(e, f, and i).

- (3) Construction Requirements:
- (a) Each cesspool and seepage pit shall be installed in a location to facilitate future connection to a sewerage system when such facilities become available.
  - (b) Maximum depth of cesspools and seepage pits shall be thirty-five (35) feet below ground surface.
  - (c) The cesspool or seepage pit depth shall terminate at least four (4) feet above the water table.
  - (d) Cesspool and seepage pit structures shall be of a design to assure that collapse or cave-in will not occur. ~~[Diagrams 16 and 17, which show seepage pit designs, reflect an acceptable design for cesspools.]~~
  - (e) The provisions of OAR 340-71-220 ~~[-(2)-]~~ (1) (i) are met.
- (4) Permits to repair or replace failing cesspool or seepage pit systems may be issued if sewers are not available. Connection to sewers shall be made whenever practicable. Connection will be deemed practicable if sewers are physically available as defined in OAR 340-71-160(5) (f) unless otherwise allowed by the Agent. The Agent may exercise judgment in determining whether strict compliance with the requirements identified in Section (3) of this rule are reasonable.
- (5) Notwithstanding the permit duration specified in section 340-71-160(9), a permit issued pursuant to this rule may be effective for a period of less than one (1) year from the date of issue if specified by the Agent.
- (6) The Agent shall report to the Department of Environmental Quality at the end of each calendar year on the number of cesspools and seepage pits removed, the number of repair and replacement systems authorized, and the number of new interim cesspool and seepage pit systems approved through on-site system and WPCF permit issuance. The calculated number of single family dwelling unit equivalent cesspools remaining in service shall at all times be less than or equal to the number derived for that point in time based on fifty-six thousand (56,000) units in existence at the beginning of 1985, and the target percent removed based on the benchmark removal rate as shown in Figure 4-1 of "Mid-Multnomah County Sewer Implementation Plan", September 1985.
- (7) For proposed new sewage loads in excess of five thousand (5000) gallons per day, applications for site evaluation reports and construction permits must be submitted to the Department of Environmental Quality. The permits shall be issued pursuant to OAR 340, Divisions 14 and 45 only after the Agent and the Department concur the provisions of subsection (2) (b) of this rule not are violated.

340-71-410 RURAL AREA CONSIDERATION [~~VARIANCES~~].

- (1) [~~Variances~~] Departure from any standard contained in Subsections 340-71-220 [~~(2)~~] (1) (a) through (h) may be granted by the Agent in certain rural zones provided:
- (a) The County designates [~~and the Department accepts~~] specific rural zoning classifications for purposes of this rule.
  - (b) The minimum parcel size considered under this rule is designated by the County, but in no event shall it be less than ten (10) acres.
  - (c) The parcel is an existing parcel that does not have an accessible area approvable for a standard on-site system.
  - (d) The permit is for an on-site system designed to serve a single family dwelling, or for a commercial facility with an equivalent or less sewage flow permitted by the zone.
  - (e) The on-site sewage disposal system will function in a satisfactory manner so as not to create a public health hazard, or cause pollution of public waters.
  - (f) Requiring strict compliance with the standards contained in subsections 340-71-220 [~~(2)~~] (1) (a) through (h), would in the judgment of the Agent, be unreasonable, burdensome, or impractical due to special physical conditions or cause.
- (2) [~~The conditions for rural area variances shall be set forth in an addendum to the memorandum of agreement (contract) between the County and the Department.~~] The Agent has the discretion to approve design and construction for either a standard or alternative system.

**340-71-415 FORMAL VARIANCES.**

- (1) Variances from any rule or standard for on-site sewage systems, contained in these rules, may be granted to applicants for permits by the Commission after a hearing before a special variance officer. The variance officer shall make a recommendation to the Commission for or against the variance.
- (2) Variances from any rule contained in OAR 340, Division 71 may be granted to applicants for permits by special variance officers appointed by the Director.
- (3) No variance may be granted unless the Commission or a special variance officer finds that:
  - (a) Strict compliance with the rule or standard is inappropriate for cause; or
  - (b) Special physical conditions render strict compliance unreasonable, burdensome, or impractical.
- (4) Applications.
  - (a) Applications shall be made to the Department or Agreement County as appropriate. A separate application must be filed for each site considered for a variance.
  - (b) Each application shall be accompanied by:
    - (A) A site evaluation report, unless waived by the variance officer; and
    - (B) Plans and specifications for the proposed system; and
    - (C) The appropriate fee; and
    - (D) Other information necessary for rendering a proper decision; and
    - (E) The application shall be signed by the property owner.
- (5) An applicant for a variance under this rule is not required to pay the application fee, if at the time of filing, the applicant:
  - (a) Is sixty-five (65) years of age or older; and
  - (b) Is a resident of the State of Oregon; and
  - (c) Has an annual household income, as defined in ORS 310.030, of \$15,000 or less; and
  - (d) Has not previously applied under the provisions of this section.

**340-71-420 HARDSHIP VARIANCES.**

- (1) The Commission may grant variances from rules or standards pertaining to on-site sewage disposal systems in cases of extreme and unusual hardship.
- (2) The Commission may consider the following factors in reviewing an application for a variance based on hardship:
  - (a) Advanced age or bad health of applicant.
  - (b) Need of applicant to care for aged, incapacitated or disabled relatives.
  - (c) Relative insignificance of the environmental impact of granting a variance.
- (3) Hardship variances granted by the Commission may contain conditions such as:
  - (a) Permits for the life of the applicant.
  - (b) Limiting the number of permanent residents using the system.
  - (c) Use of experimental systems for specified periods of time.
- (4) Before an application is considered for a hardship variance it must be denied for a standard variance on the basis of technical rule considerations. At the time of application, the applicant must designate on the application whether it is to be considered for a hardship variance.
- (5) Documentation of hardship must be provided before the application is referred to the Commission for action.
- (6) Department personnel shall strive to aid and accommodate the needs of applicants for variances due to hardship.

**340-71-425 VARIANCE OFFICERS.**

- (1) To qualify for appointment as a special variance officer after the effective date of these rules an individual must:
  - (a) Have three (3) years full time experience in subsurface sewage disposal methods since January 1, 1974; one (1) year of which shall have been in Oregon; and
  - (b) Have attended one (1) or more seminars, workshops, or short courses pertaining soils and their relationship to subsurface sewage disposal.
- (2) Agreement (contract) counties may request that a county staff member, meeting the above qualifications, be appointed special variance officer. That staff member, if appointed, would perform the Department's variance duties within that county.

**340-71-430 VARIANCE HEARINGS.**

- (1) The variance officer shall hold a public information type hearing on each variance application.
- (2) The hearing shall be held in the county where the property described in the application is located.
- (3) Each variance shall be heard within thirty (30) days after receipt of a completed application.
- (4) A decision to grant or deny the variance shall be made in writing within thirty (30) days after completion of the hearing. If the variance is granted, the variance officer shall set forth in writing the specifications, conditions and location of the system.
- (5) The burden of presenting the supportive facts shall be the responsibility of the applicant.
- (6) The variance officer shall visit the site of the proposed system prior to conducting the hearing.
- (7) Except for hardship variances, granted variances shall run with the land.

**340-71-435 VARIANCE PERMIT ISSUANCE, INSPECTIONS, CERTIFICATE OF SATISFACTORY COMPLETION.**

- (1) After a variance is granted the appropriate Agent shall be notified in writing.
- (2) In nonagreement counties the Department shall issue system construction-installation permits, perform necessary inspections and issue Certificates of Satisfactory Completion.
- (3) In agreement counties, the county shall issue system construction installation permits, perform necessary inspections and issue Certificates of Satisfactory Completion.



**340-71-440 VARIANCE APPEALS.**

Decisions of variance officers to grant or deny a variance may be appealed to the Commission.

**340-71-445 VARIANCE ADMINISTRATIVE REVIEW.**

The Department may review all records and files of variance officers to determine compliance or noncompliance with these rules.

**340-71-450 EXPERIMENTAL SYSTEMS.**

- (1) Policy: Alternative technologies to standard on-site sewage systems are needed in areas planned for rural or low density development. It is the policy of the Commission to allow the Department to pursue a program of experimentation for the purpose of obtaining sufficient data for the development of alternative sewage disposal systems, which may benefit significant numbers of people within Oregon.
- (2) Permit Required: Without first obtaining a permit from the Department, no person shall construct an experimental on-site sewage treatment and disposal system.
- (3) Application Procedures:
  - (a) Application for experimental systems shall be made on Department forms.
  - (b) The application shall be complete, signed by the owner and be accompanied by the required fee.
  - (c) The application shall include detailed system design specifications and plans and any additional information the Department considers necessary.
  - (d) The owner shall agree, in writing, to hold the State of Oregon, its officers, employees, and agents harmless of any and all loss and damage caused by defective installation or operation of the proposed system.
- (4) Criteria For Approval: Sites may be considered for experimental system permits where:
  - (a) Soils, climate, groundwater, or topographical conditions are common enough to benefit large numbers of people.
  - (b) A specific acceptable backup alternative is available in the event of system failure.
  - (c) For absorption systems, soils in both original and system replacement areas are similar.
  - (d) Installation of a particular system is necessary to provide sufficient data sampling base.
  - (e) Zoning, planning, and building requirements allow system installation.
  - (f) A single family dwelling will be served.
  - (g) The system will be used on a continuous basis during the life of the test project.
  - (h) Resources for monitoring, sample collection, and laboratory testing are available.
  - (i) Legal and physical access by easement for construction inspections and monitoring are available.
  - (j) The property owner records a Department approved affidavit which notifies prospective property purchasers of the existence of an experimental system.
  - (k) The parcel size is at least one (1) acre.

- (5) Permit Conditions: The system installation permit shall:
- (a) Specify method and manner of system installation, operation, and maintenance;
  - (b) Specify method, manner, and duration of system testing and monitoring;
  - (c) Identify when and where system is to be inspected;
  - (d) Require that permit not be transferable;
  - (e) Require system construction and use within one (1) year of permit issuance.
- (6) Denial Appeal: The decision of staff to either issue or deny a permit may be reviewed by the Director. The Director may affirm or reverse the decision.
- (7) Inspection of Installed System:
- (a) Upon completing construction for each inspection phase required under the permit, the permit holder shall notify the Department.
  - (b) The Department may ~~[shall]~~ inspect construction to determine whether it complies with permit conditions and requirements.
  - (c) After system installation is complete and complies with permit conditions, a Certificate of Satisfactory Completion shall be issued.
- (8) Repair or Replacement of System: If the Department finds the operation of the system is unsatisfactory, the owner upon written notification, shall promptly repair or modify the system, replace it with another acceptable system, or as a last resort, abandon the system.
- (9) System Monitoring: The system shall be monitored by the permittee ~~[Department]~~ in accordance with a schedule contained in the permit. The Department may also monitor the operation of the system, including collection of samples for analysis.

**340-71-460 MORATORIUM AREAS.**

- (1) Whenever the Commission finds that construction of subsurface or alternative sewage disposal systems should be limited or prohibited in an area, it shall issue an order limiting or prohibiting such construction.
- (2) The order shall be issued only after public hearing for which more than thirty (30) days' notice is given.
- (3) The order shall be a rule of this division which contains a general description of the moratorium area. A more detailed description of the area, if needed, shall be an appendix to these rules.
- (4) No permit or site evaluation report shall be issued for construction of a new or expanded system which would violate any order of the Commission issued pursuant to ORS 454.685.
- (5) **Criteria For Establishing Moratoriums:** In issuing an order under this section the Commission shall consider the factors contained in ORS 454.685(2).
- (6) **Specific Moratorium Areas:** Pursuant to ORS 454.685, the Agent shall not issue sewage system construction-installation permits or approved site evaluation reports within the boundaries of the following areas of the state:

~~[(a) Benton County - Kingston Heights Subdivision;~~

~~[(b) Benton County - Kingston Heights Subdivision, First Addition;~~

~~[(c) Benton County - Princeton Heights Subdivision;~~

~~[(d) Benton County - Princeton Heights Subdivision, First Addition;~~

~~[(e) Lane County - Community of Dexter, as follows:~~

~~The area generally know as Dexter, and defined by the Boundary submitted by the Board of County Commissioners for Lane, which is bounded on the Northeast by Willamette Highway No. 58, and contains those properties Southwesterly of Highway No. 58 in the following tax assessment maps of Lane County: T19S, R1W, Section 16.2, T19S, R1W, Section 16.32, T19S, R1W, Section 16.31, T19S, R1W, Section 16.42, and T19S, R1W, Section 16 and index located totally within Lane County.]~~

~~[(f)] Lane County - Clear Lake Watershed of the North Florence Dunal Aquifer Area, as follows: The area hereby known as the Clear Lake Watershed of the North Florence Dunal Aquifer Area defined by the hydrologic boundaries identified in the June 1982, **208 North Florence Dunal Aquifer Study** which is the area beginning at a point known as Tank One, located in Section One, Township 18 South, Range 12 West, of the Willamette Meridian, Lane County, Oregon:~~

<del>Run thence S. 67° 50' 51.5" E. 97.80 ft. to the True Point of Beginning;</del>	
<del>Run thence S. 05° 40' 43.0" W.</del>	<del>1960.62 ft. to a point,</del>
<del>Run thence S. 04° 58' 45.4" W.</del>	<del>1301.91 ft. to a point,</del>
<del>Run thence S. 52° 44' 01.0" W.</del>	<del>231.21 ft. to a point,</del>
<del>Run thence S. 15° 20' 45.4" W.</del>	<del>774.62 ft. to a point,</del>
<del>Run thence S. 31° 44' 14.0" W.</del>	<del>520.89 ft. to a point,</del>
<del>Run thence S. 00° 24' 43.9" W.</del>	<del>834.02 ft. to a point,</del>
<del>Run thence S. 07° 49' 01.8" W.</del>	<del>1191.07 ft. to a point,</del>

Run thence S. 50° 26' 06.3" W. 731.61 ft. to a point,  
Run thence S. 02° 51' 10.5" W. 301.37 ft. to a point,  
Run thence S. 36° 37' 58.2" W. 918.41 ft. to a point,  
Run thence S. 47° 12' 26.3" W. 1321.86 ft. to a point,  
Run thence S. 72° 58' 54.2" W. 498.84 ft. to a point,  
Run thence S. 85° 44' 21.3" W. 955.64 ft. to a point,  
Which is N. 11° 39' 16.9" W. 5434.90 ft. from a point known  
as Green Two (located in Section 13 in said Township and  
Range) ;  
Run thence N. 58° 09' 44.1" W. 1630.28 ft. to a point,  
Run thence N. 25° 23' 10.1" W. 1978.00 ft. to a point,  
Run thence N. 16° 34' 21.0" W. 1731.95 ft. to a point,  
Run thence N. 06° 13' 18.0" W. 747.40 ft. to a point,  
Run thence N. 03° 50' 32.8" E. 671.51 ft. to a point,  
Run thence N. 59° 33' 18.9" E. 1117.02 ft. to a point,  
Run thence N. 59° 50' 06.0" E. 2894.56 ft. to a point,  
Run thence N. 48° 28' 40.0" E. 897.56 ft. to a point,  
Run thence N. 31° 29' 50.7" E. 920.64 ft. to a point,  
Run thence N. 19° 46' 39.6" E. 1524.95 ft. to a point,  
Run thence S. 76° 05' 37.1" E. 748.95 ft. to a point,  
Run thence S. 57° 33' 30.2" E. 445.53 ft. to a point,  
Run thence S. 78° 27' 44.9" E. 394.98 ft. to a point,  
Run thence S. 61° 55' 39.0" E. 323.00 ft. to a point,  
Run thence N. 89° 04' 46.8" E. 249.03 ft. to a point,  
Run thence S. 67° 43' 17.4" E. 245.31 ft. to a point,  
Run thence S. 79° 55' 09.8" E. 45.71 ft. to a point,  
Run thence S. 83° 59' 27.6" E. 95.52 ft. to a point,  
Run thence N. 42° 02' 57.2" E. 68.68 ft. to a point,  
Run thence S. 80° 41' 24.2" E. 61.81 ft. to a point,  
Run thence S. 10°47' 03.5" E. 128.27 ft. to the True Point  
of Beginning; and containing all or portions of T17S, R12W,  
Section 35 and 36, and T18S, R12W, Sections 1, 2, 11 and 12;  
W.M., Lane County.

340-71-500 COMMUNITY SYSTEMS.

~~[(1) For the purpose of these rules:~~

~~(a) "Community System" means an on-site system which will serve more than one (1) lot or parcel; or more than one (1) condominium unit; or more than one (1) unit of a planned unit development.~~

~~(b) "Person" means individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the State and any agencies thereof, and the federal government and any agencies thereof.]~~

(1) ~~[(2)]~~ Without first applying for and obtaining a construction-installation permit, no person shall install a community on-site system.

(2) ~~[(3)]~~ Proposed community systems with projected sewage flows greater than two thousand five hundred (2,500) gallons per day shall have a WPCF permit prior to construction and shall have plans reviewed and approved by the Department prior to construction, unless that responsibility is specifically delegated to the Agent. ~~[permit issuance.]~~

(3) ~~[(4)]~~ Plans for all community systems shall include operation and maintenance details including details for financing system operation and maintenance.

(4) ~~[(5)]~~ The site criteria for approval of community systems shall be the same as required for standard subsurface systems contained in section 340-71-220 (1) ~~[(2)]~~, or in the case of community alternative systems, the specific site conditions for that system contained in rules: 340-71-260 through 340-71-275; 340-71-290 through 340-71-305; 340-71-315; and 340-71-345.

(5) ~~[(6)]~~ Operation Responsibility.

(a) Responsibility for operation and maintenance of community systems shall be vested in a municipality ~~[as defined in ORS 454.010(3), or]~~, a Homeowners Association, or an Association of Unit Owners as defined in ~~[ORS 94.004 and ORS 94.146]~~ Oregon Revised Statutes.

(b) Unless otherwise required by permit, community systems shall be inspected at least annually by the responsible entity.

**340-71-520 LARGE SYSTEMS.**

- (1) ~~[For the purpose of these rules "large system" means any system with a projected daily sewage flow greater than two thousand five hundred (2,500) gallons.]~~ Large systems require a WPCF permit. The Agent may authorize construction of a large system provided the following design criteria are met.
- (2) Special Design Requirements:. Unless otherwise authorized by the Department, large systems shall comply with the following requirements:
  - (a) Large system absorption facilities shall be designed with ~~[pressure]~~ distribution~~[-]~~ to the cells by means of pump(s) or siphon(s).
  - (b) The disposal area shall be divided into relatively equal units. Each unit shall receive no more than thirteen hundred (1300) gallons of effluent per day.
  - (c) The replacement (repair) disposal area shall be divided into relatively equal units, with a replacement disposal area unit located adjacent to an initial disposal area unit.
  - (d) Effluent distribution shall alternate between the disposal area units.
  - (e) Each system shall have at least two (2) pumps or siphons.
  - (f) The applicant shall provide a written assessment of the impact of the proposed system upon the quality of public waters and public health.
- (3) Plans and specifications for large systems shall be prepared by any competent professional with education or experience in the specific technical field involved. The professional may accept an assignment requiring education or experience outside of his/her own field of competence provided he/she retains competent and legally qualified services to perform that part of the assignment outside his/her own field of competence, his/her client or employer approves this procedure, and he/she retains responsibility to his/her client or employer for the competent performance of the whole assignment.
- (4) Construction Requirements:
  - (a) Construction shall be in substantial conformance with approved plans and specifications and any terms of the permit issued by the Agent.
  - (b) After completion of the system the professional shall certify that the system was installed in accordance with approved plans and specifications.

340-71-600 SEWAGE DISPOSAL SERVICE.

~~[(1) For the purpose of these rules "Sewage Disposal Service" means:~~

- ~~(a) The installation of on-site sewage disposal systems (including the placement of portable toilets), or any part thereof; or~~
- ~~(b) The pumping out or cleaning of on-site sewage disposal systems (including portable toilets), or any part thereof; or~~
- ~~(c) The disposal of material derived from the pumping out or cleaning of on-site sewage disposal systems (including portable toilets); or~~
- ~~(d) Grading, excavating, and earth moving work connected with the operations described in subsection (1)(a) of this rule, except streets, highways, dams, airports or other heavy construction projects and except earth moving work performed under the supervision of a builder or contractor in connection with and at the time of the construction of a building or structure; or~~
- ~~(e) The construction of drain and sewage lines from five (5) feet outside a building or structure to the service lateral at the curb or in the street or alley or other disposal terminal holding human or domestic sewage.]~~

(1) [(2)] No person shall perform sewage disposal services or advertise or represent himself/herself as being in the business of performing such services without first obtaining a license from the Department. Unless suspended or revoked at an earlier date, a Sewage Disposal Service license issued pursuant to this rule expires on July 1 next following the date of issuance. Beginning July 1 1995, in order to be licensed, the applicant must pass a written examination to demonstrate familiarization with the on-site rules found in Oregon Administrative Rules Chapter 340 Divisions 71 and 73, or attend a Department approved training session. All persons employed by the licensee who are involved in the construction or installation of systems shall also pass the written test or attend the training session and shall carry evidence of that on their person. The Department will provide all persons, who pass the test or attend the training session, with a wallet size card for this purpose. Retesting will be required every 5 years.

(2) [(3)] Those persons making application for a sewage disposal service license shall:

- (a) Submit a complete license application form to the Department for each business; and
- (b) File and maintain with the Department original evidence of surety bond, or other approved equivalent security, in the penal sum of two thousand five hundred dollars (\$2,500) for each business; and



- (c) Shall have pumping equipment inspected by the Agent annually if intending to pump out or clean systems and shall complete the "Sewage Pumping Equipment Description/Inspection" form supplied by the Department. An inspection performed after January 1st shall be accepted for licensing the following July 1st; and
  - (d) Submit the appropriate fee as set forth in subsection 340-71-140(1) ~~[(i)]~~ (h) for each business.
  - (e) Pass the written examination or have attended a Department approved training session.
  - (f) If operating a septage pumping service, submit a copy of the past 12 months pumping records required by Subsection (12) (d) of this rule.
- (3) ~~[(4)]~~ A Sewage Disposal Service license may be transferred or amended during the license period to reflect changes in business name, ownership, or entity (i.e., individual, partnership, or corporation), providing:
- (a) A complete application to transfer or amend the license is submitted to the Department with the appropriate fee as set forth in subsection 340-71-140(1) ~~[(i)]~~ (h); and
  - (b) The Department is provided with a rider to the surety, or a new form of security as required in subsection ~~[(3)]~~ (2) (b) of this rule; and
  - (c) A valid Sewage Disposal Service license (not suspended, revoked, or expired) is returned to the Department; and
  - (d) If there is a change in the business name, a new "Sewage Pumping Equipment Description/Inspection" form for each vehicle is submitted to the Department.
  - (e) No person who takes over a Sewage Disposal Service shall operate the business until they have passed the written examination or attended the Department approved training session.
- (4) ~~[(5)]~~ The type of security to be furnished pursuant to OAR 340-71-600 ~~[(3)]~~ (2) (b) may be:
- (a) Surety bond executed in favor of the State of Oregon on a form approved by the Attorney General and provided by the Department. The bond shall be issued by a surety company licensed by the Insurance Commissioner of Oregon. Any surety bond shall be so conditioned that it may be cancelled only after forty-five (45) days notice to the Department, and to otherwise remain in effect for not less than two (2) years following termination of the sewage disposal service license, except as provided in subsection (e) of this section; or
  - (b) Insured savings account irrevocably assigned to the Department, with interest earned by such account made payable to the depositor; or

- (c) Negotiable securities of a character approved by the State Treasurer, irrevocably assigned to the Department, with interest earned on deposited securities made payable to the depositor.
- (d) Any deposit of cash or negotiable securities under ORS 454.705 shall remain in effect for not less than two (2) years following termination of the sewage disposal service license except as provided in subsection (e) of this section. A claim against such security deposits must be submitted in writing to the Department, together with an authenticated copy of:
  - (A) The court judgment or order requiring payment of the claim; or
  - (B) Written authority by the depositor for the Department to pay the claim.
- (e) When proceedings under ORS 454.705 have been commenced while the security required is in effect, such security shall be held until final disposition of the proceedings is made. At that time claims will be referred for consideration of payment from the security so held.

(5) [~~46~~] Each licensee shall:

- (a) Be responsible for any violation of any statute, rule, or order of the Commission or Department pertaining to his licensed business.
- (b) Be responsible for any act or omission of any servant, agent, employee, or representative of such licensee in violation of any statute, rule, or order pertaining to his license privileges.
- (c) Deliver to each person for whom he performs services requiring such license, prior to completion of services, a written notice which contains:
  - (A) A list of rights of the recipient of such services which are contained in ORS 454.705(2); and
  - (B) Name and address of the surety company which has executed the bond required by ORS 454.705(1); or
  - (C) A statement that the licensee has deposited cash or negotiable securities for the benefit of the Department in compensating any person injured by failure of the licensee to comply with ORS 454.605 to 454.745 and with rules of the Environmental Quality Commission.
- (d) Keep the Department informed on company changes that affect the license, such as business name change, change from individual to partnership, change from partnership to corporation, change in ownership, etc.

(6) [~~(7)~~] Misuse of License:

- (a) No licensee shall permit anyone to operate under his license, except a person who is working under supervision of the licensee.
- (b) No person shall:
  - (A) Display or cause or permit to be displayed, or have in his possession any license, knowing it to be fictitious, revoked, suspended or fraudulently altered.
  - (B) Fail or refuse to surrender to the Department any license which has been suspended or revoked.
  - (C) Give false or fictitious information or knowingly conceal a material fact or otherwise commit a fraud in any license application.

(7) [~~(8)~~] Pumping and Cleaning Responsibilities:

- (a) Persons performing the service of pumping or cleaning of sewage disposal facilities shall avoid spilling of sewage while pumping or while in transport for disposal.
- (b) Any spillage of sewage shall be immediately cleaned up by the operator and the spill area shall be disinfected.

(8) [~~(9)~~] License Suspension or Revocation:

- (a) The Department may suspend, revoke, or refuse to grant, or refuse to renew, any sewage disposal service license if it finds:
  - (A) A material misrepresentation or false statement in connection with a license application; or
  - (B) Failure to comply with any provisions of ORS 454.605 through 454.785, the rules of the Environmental Quality Commission or an order of the Commission or Department; or
  - (C) Failure to maintain in effect at all times the required bond or other approved equivalent security, in the full amount specified in ORS 454.705; or
  - (D) Nonpayment by drawee of any instrument tendered by applicant as payment of license fee.
- (b) Whenever a license is suspended, revoked or expires, the licensee shall remove the license from display and remove all Department identifying labels from equipment. The licensee shall surrender the suspended or revoked license, and certify in writing to the Department within fourteen (14) days after suspension or revocation that all Department identification labels have been removed from all equipment.
- (c) A sewage disposal service may not be considered for relicensure for a period of at least one (1) year after revocation of its license.
- (d) A suspended license may be reinstated, providing:
  - (A) A complete application for reinstatement of license is submitted to the Department, accompanied by the

appropriate fee as set forth in subsection 340-71-140(1) [~~(i)~~] **(h)**; and

- (B) The grounds for suspension have been corrected; and
- (C) The original license would not have otherwise expired.

**(9)** [~~(10)~~] Equipment Minimum Specifications:

- (a) Tanks for pumping out of sewage disposal facilities shall comply with the following:
  - (A) Have a liquid capacity of at least five hundred fifty (550) gallons.  
**EXCEPTION:** Tanks for equipment used exclusively for pumping chemical toilets not exceeding fifty (50) gallons capacity, shall have a liquid capacity of at least one hundred fifty (150) gallons.
  - (B) Be of watertight metal construction;
  - (C) Be fully enclosed;
  - (D) Have suitable covers to prevent spillage.
- (b) The vehicle shall be equipped with either a vacuum or other type pump which will not allow seepage from the diaphragm or other packing glands and which is self priming.
- (c) The sewage hose on vehicles shall be drained, capped, and stored in a manner that will not create a public health hazard or nuisance.
- (d) The discharge nozzle shall be:
  - (A) Provided with either a camlock quick coupling or threaded screw cap.
  - (B) Sealed by threaded cap or quick coupling when not in use.
  - (C) Located so that there is no flow or drip onto any portion of the vehicle.
  - (D) Protected from accidental damage or breakage.
- (e) No pumping equipment shall have spreader gates.
- (f) Each vehicle shall at all times be supplied with a pressurized wash water tank, disinfectant, and implements for cleanup.

- (g) Pumping equipment shall be used for pumping sewage disposal facilities exclusively unless otherwise authorized in writing by the Agent.
- (h) Chemical toilet cleaning equipment shall not be used for any other purpose.

(10) [~~(11)~~] Equipment Operation and Maintenance:

- (a) When in use, pumping equipment shall be operated in a manner so as not to create public health hazards or nuisances.
- (b) Equipment shall be maintained in a reasonably clean condition at all times.

(11) [~~(12)~~] Vehicles shall be identified as follows:

- (a) Display the name or assumed business name on each vehicle cab and on each side of a tank trailer:
  - (A) In letters at least three (3) inches in height; and
  - (B) In a color contrasting with the background.
- (b) Tank capacity shall be printed on both sides of the tank:
  - (A) In letters at least three (3) inches in height; and
  - (B) In a color contrasting with the background.
- (c) Labels issued by the Department for each current license period shall be displayed at all times at the front, rear, and on each side of the "motor vehicle" as defined by United States Department of Transportation Regulations, Title 49 U.S.C.

(12) [~~(13)~~] Disposal of [~~Pumpings~~] Septage. Each licensee shall:

- (a) Discharge no [~~part of the pumpings~~] septage upon the surface of the ground unless approved by the Department in writing.
- (b) Dispose of [~~pumpings~~] septage only in disposal facilities approved by the Department.
- (c) Possess at all times during pumping, transport or disposal of [~~pumpings~~] septage, origin-destination records for sewage disposal services rendered.

- (d) Maintain on file complete origin-destination records for sewage disposal services rendered. Origin-Destination records shall include:
  - (A) Source of [~~pumpings~~] septage on each occurrence, including name and address.
  - (B) Specific type of material pumped on each occurrence.
  - (C) Quantity of material pumped on each occurrence.
  - (D) Name and location of authorized disposal site, where [~~pumpings~~] septage was deposited on each occurrence.
  - (E) Quantity of material deposited on each occurrence.
- (e) Transport [~~pumpings~~] septage in a manner that will not create a public health hazard or nuisance.
- (f) Possess a current septage management plan, approved by the Department. The plan shall be kept current, with any revisions approved by the Department before implementation.
- (g) Comply with the approved septage management plan, and the septage management plan approval letter issued by the Department.

340-71-605 IMPLEMENTATION DATE OF RULE MODIFICATIONS

Rule 340-71-115 becomes effective immediately upon filing with the Secretary of State. Unless otherwise specified in the individual rule, all other rule modifications become effective April 1, 1995. Until these rule modifications become effective, the existing rules remain in effect.

TABLE 1

## Minimum Separation Distances

Items Requiring Setback	From Sewage Disposal Area Including Replacement Area	From Septic Tank and Other Treatment Units, Effluent Sewer and Distribution Units
1. Groundwater Supplies	100'	50'
2. Temporarily Abandoned Wells	100'	50'
3. Springs: -- upgradient	50'	50'
-- downgradient	100'	50'
*4. Surface Public Waters: -- year round	100'	50'
-- seasonal	50'	50'
5. Intermittent Streams:		
-- Piped (watertight not less than 25' from any part of the on-site system)	20'	20'
-- Unpiped	50'	50'
6. Groundwater Interceptors:		
On a slope of 3% of less	20'	<u>10'</u> [ <del>20'</del> ]
On a slope greater than 3%		
-- Upgradient	10'	<u>5'</u> [ <del>10'</del> ]
-- Downgradient	50'	<u>10'</u> [ <del>25'</del> ]
7. Irrigation Canals:		
Lined (watertight canal)	25'	25'
Unlined		
-- Upgradient	25'	25'
-- Downgradient	50'	50'
8. Cuts Manmade in Excess of 30 Inches (Top of Downslope Cut):		
-- Which Intersect Layers that Limit Effective Soil Depth Within 48 Inches of Surface	50'	25'
-- Which Do Not Intersect Layers That Limit Effective Soil Depth	25'	10'
9. Escarpments:		
-- Which Intersect Layers that Limit Effective Soil Depth	50'	10'
-- Which Do Not Intersect Layers That Limit Effective Soil Depth	25'	10'
10. Property Lines	10'	<u>5'</u> [ <del>10'</del> ]
11. Water Lines	10'	10'
12. Foundation Lines of any Building, Including Garages and Out Buildings	10'	5'
<u>13. Underground Utilities</u>	<u>10'</u>	--

\* This does not prevent stream crossings of pressure effluent sewers.

TABLE 2  
Quantities of Sewage Flows

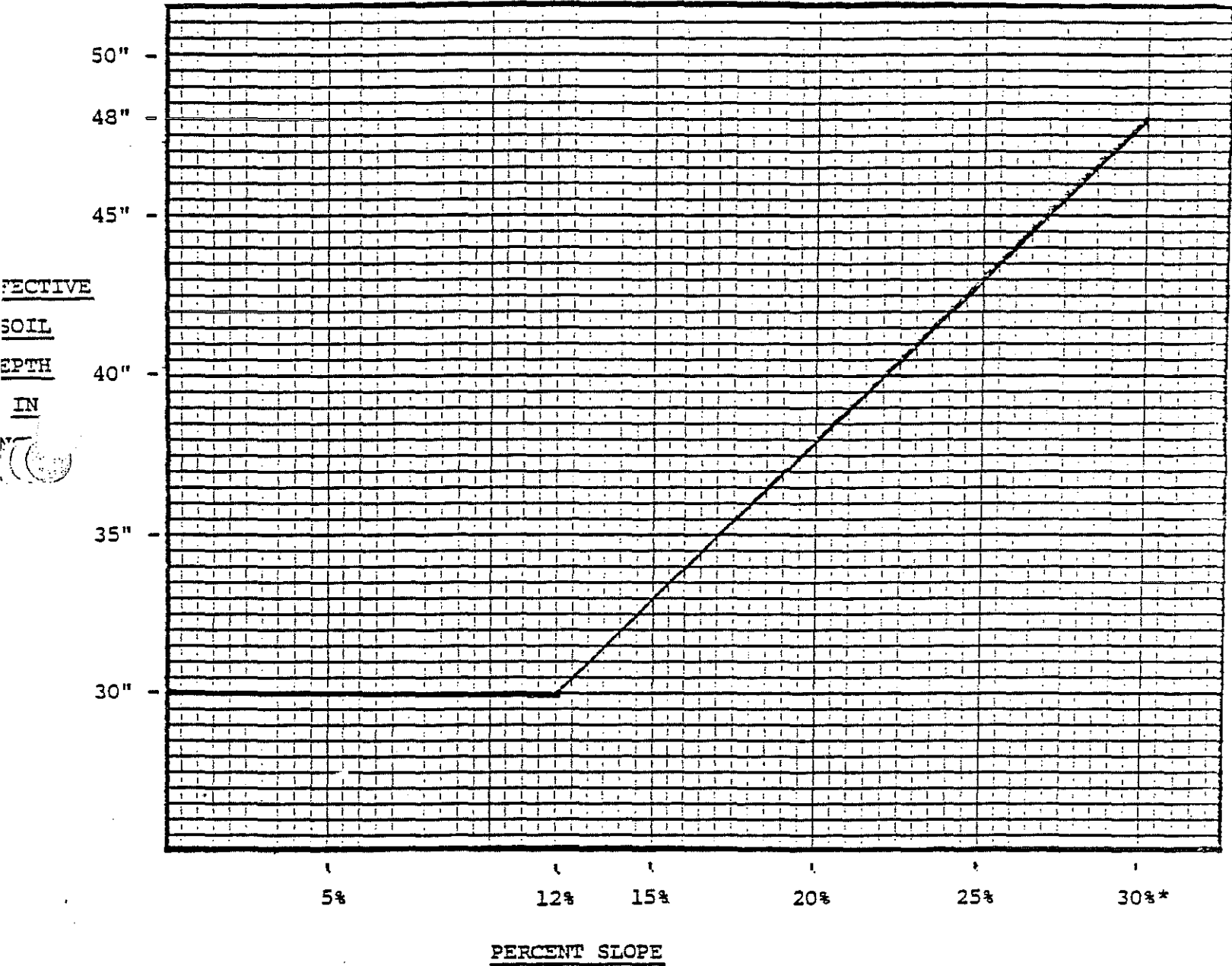
Type of Establishment	Column 1	Column 2
	Gallons Per Day	Minimum Gallons Per Establishment Per Day
Airports	5 (per passenger)	150
Bathhouses and swimming pools	10 (per person)	300
Camps: (4 persons per campsite, where applicable)		
Campground with central comfort stations	35 (per person)	700
With flush toilets, no showers	25 (per person)	500
Construction camps (semi-permanent)	50 (per person)	1000
Day camps (no meals served)	15 (per person)	300
Resort camps (night and day) with limited plumbing	50 (per person)	1000
Luxury camps	100 (per person)	2000
Churches	5 (per seat)	150
Country clubs	100 (per resident member)	2000
Country clubs	25 (per non-resident member present)	—
Dwellings:		
Boarding houses	150 (per bedroom)	600
Additional for non-residential boarders	10 (per person)	—
Rooming houses	80 (per person)	500
Condominiums, Multiple family dwellings (Including apartments)	300 (per unit)	900
Single family dwellings	300 (not exceeding 2 bedrooms)	450*
With more than 2 bedrooms	75 (for third & each succeeding bedroom)	450
Factories (exclusive of industrial wastes, with shower facilities)	35 (per person per shift)	300
Factories (exclusive of industrial wastes, without shower facilities)	15 (per person per shift)	150
Hospitals	250 (per bed space)	2500
Hotels with private baths	120 (per room)	600
Hotels without private baths	100 (per room)	500
Institutions other than hospitals	125 (per bed space)	1250
Laundries, self-service	500 (per machine)	2500
Mobile home parks	250 (per space)	750
Motels (with bath, toilet, and kitchen wastes)	100 (per bedroom)	500
Motels (without kitchens)	80 (per bedroom)	400
Picnic Parks (toilet wastes only)	5 (per picnicker)	150
Picnic Parks (with bathhouses, showers and flush toilets)	10 (per picnicker)	300
Restaurants	40 (per seat)	800
Restaurants (single-service)	2 (per customer)	300
Restaurants (with bars and/or lounges)	50 (per seat)	1000
Schools:		
Boarding	100 (per person)	3000
Day, without gyms, cafeterias or showers	15 (per person)	450
Day, with gyms, cafeterias and showers	25 (per person)	750
Day, with cafeteria, but without gyms or showers	20 (per person)	600
Service Stations	10 (per vehicle served)	500
Swimming pools and bathhouses	10 (per person)	300
Theaters:		
Movie	5 (per seat)	300
Drive-In	20 (per car space)	1000
Travel trailer parks (without individual water and sewer hookups)	50 (per space)	300
Travel trailer parks (with individual water and sewer hookups)	100 (per space)	500
Workers:		
Construction (as semi-permanent camps)	50 (per person)	1000
Day, at schools and offices	15 (per shift)	150

\* Except as otherwise provided in these rules.



TABLE 3

SLOPE, EFFECTIVE SOIL DEPTH RELATIONSHIP



\* When slope exceeds 30 percent, rules on steep slope systems apply.  
(Refer to OAR 340-71-310)

TABLE 4

Minimum length of disposal trench (linear feet) required per one hundred fifty (150) gallons projected daily sewage flow determined from soil texture versus effective soil depth.

<u>EFFECTIVE</u> <u>SOIL</u> <u>DEPTH</u>	<u>SOIL GROUP</u> *		
	A	B	C
18" to Less than 24"	125	150	175
24" to Less than 36"	100	125	150
36" to less than 48"	75	100	125
48" or more	50	75	125

- \* Soil Group A Sand, Loamy Sand, Sandy Loam
- Soil Group B Sandy Clay Loam, Loam, Silt Loam, Silt, Clay Loam
- Soil Group C Silty Clay Loam, Sandy Clay, Silty Clay, Clay

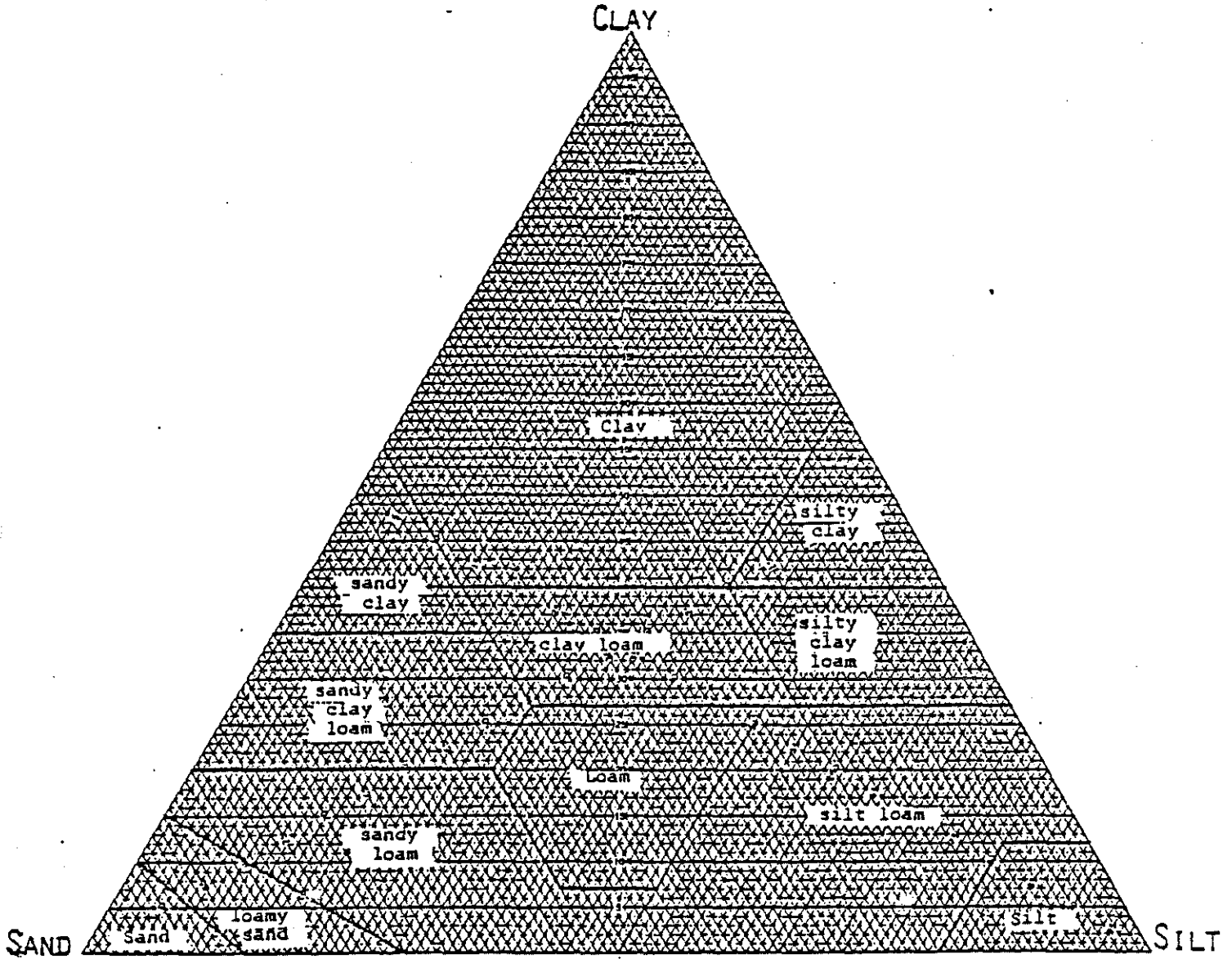
TABLE 5

Minimum length of disposal trench (linear feet) required per one hundred fifty (150) gallons projected daily sewage flow determined from soil texture versus depth to temporary groundwater.

<u>DEPTH</u>	24"			
<u>TO</u>	To Less	100	125	150
	Than 48"			
<u>TEMPORARY</u>	48"			
<u>GROUNDWATER</u>	or	50	75	125
	More			
		A	B	C
		<u>SOIL GROUP *</u>		

- \* Soil Group A Sand, Loamy Sand, Sandy Loam
- Soil Group B Sandy Clay Loam, Loam, Silt Loam, Silt, Clay Loam
- Soil Group C Silty Clay Loam, Sandy Clay, Silty Clay, Clay

TABLE 6



SOIL TEXTURAL CLASSIFICATION CHART

TABLE 7

	Sieve Sizes	Millimeters
Clay		.002
Silt		
Very fine sand	270	.050
	200	.075
Fine sand	140	.1
	60	.25
Medium sand	35	.5
	18	1.0
Very coarse sand	10	2.0
	4	4.75
Fine gravel	3/8"	9.5
	1/2	12.5
Coarse gravel	3"	76.2
Cobbles		

USDA SOIL CLASSIFICATION SIZES OF SOIL SEPARATES

TABLE 8

MINIMUM SEPARATION DISTANCESFORNONWATER-CARRIED WASTE DISPOSAL FACILITIES

	Self-Contained Nonwater-Carried Waste Disposal Facility	Unsealed Earth Type Privies, Gray Water Waste Disposal Sump and Seepage Chambers
Groundwater supplies including springs and cisterns	50'	100'
Surface public waters, excluding intermittent streams	50'	100'
Intermittent streams	50'	50'
Property line	25'	25'

Note: The underlined portion of text represent proposed additions to the rules. The ~~[bracketed]~~ portion of text represents proposed deletions to the rules.

DIVISION 73

CONSTRUCTION STANDARDS

340-73-025 ~~[SEPTIC]~~ TANK CONSTRUCTION.

The following construction requirements shall apply to all holding, dosing, septic, and dosing septic tanks manufactured for use in Oregon unless specifically exempted by other portions of these rules:

- (1) Compartments: ~~[Septic tanks shall]~~ Tanks may have single or multiple compartments. Multiple compartment tanks shall comply with the following:
  - (a) The first compartment shall have a minimum liquid capacity of ~~[at least]~~ not less than two-thirds (2/3) of the total required liquid capacity, as measured from the invert of the outlet fitting.
  - ~~[(b) The second and succeeding compartments shall each have a minimum liquid capacity equal to or greater than one half (1/2) of the liquid capacity of the first compartment.]~~
  - (b) [(e)] Each compartment shall have access provided by a manhole having not less than eighteen (18) inches across its shortest dimension unless otherwise approved by the Department. The manhole cover shall not weigh more than seventy-five (75) pounds. All tanks shall be constructed to accommodate watertight risers per OAR 340-71-220(3)(b)(C). Tank lids shall be constructed with or provided with a durable, non-degradable, resilient gasket, the purpose of which is to restrict access to vectors and vermin and to control odors and retard infiltration.
  - (c) [(d)] No compartment shall have an inside horizontal dimension of less than twenty-four (24) inches.
- (2) Liquid Depth: The liquid depth of any compartment shall be at least thirty (30) inches. Liquid depths greater than seventy-two (72) inches shall not be considered in determining the working liquid capacity, except for tanks greater than 3,000 gallons capacity.
- (3) Watertightness: After installation, all [Septic] tanks shall be watertight. Each tank shall be water tested by filling to a point at least two (2) inches above the point of riser connection to the top of the tank. During the test there shall be no more than a one (1) gallon leakage over a 24 hour period.
- (4) In the case where the tank manufacturer does not install and/or seal the tank at the job site, the manufacturer shall provide bonding and sealing agents and instruction manual with the tank.
- (5) [(4)] Structural: All [Septic] tanks shall be capable of supporting an earth load of at least three hundred (300) pounds per square foot when the maximum coverage does not exceed three (3) feet. Tanks

installed with more than three (3) feet of cover shall be reinforced to support the additional load. Lateral load shall be 62.4 pcf of equivalent fluid pressure (EFP.) Tanks shall be capable of withstanding long-term external hydrostatic loads in addition to soil loads. Internal hydrostatic pressures shall be omitted to allow for septage pumping during critical ground water conditions. A 2,500 pound Wheel load concentrated over the critical elements of the tank shall also be considered.

(6) [(5)]

The inlet and outlet fittings shall be of [~~cast iron,~~] Schedule 40 P.V.C. plastic, Schedule 40 ABS plastic, or other materials approved by the Department, with a minimum diameter of four (4) inches:

- (a) The distance between the inlet and outlet fittings shall be equal to, or greater than, the liquid depth of the tank.
- (b) The inlet and outlet fittings, where applicable, shall be located at opposite ends of the tank. The inlet must be readily accessible by way of the service access or other means approved by the Department in the design of the tank. They shall be attached in a watertight manner approved by the Department.
- (c) The inlet fitting shall be a "sanitary tee" extending at least six (6) inches above and at least twelve (12) inches below the normal high and low liquid levels.
- (d) The outlet fitting, holes or ports provided in a vault or outlet filtering device shall be [~~a "tee" extending~~] positioned to withdraw effluent horizontally from the clear zone, at an elevation measured from the inside bottom of the tank 65 to 75 percent of the lowest operating liquid depth. The net area of the ports shall be not less than 6 square inches. [~~below liquid level a distance equal to not less than thirty five (35) percent nor greater than fifty (50) percent of the liquid depth, and~~] The outlet fitting shall extend at least six (6) inches above the highest normal liquid depth in order to provide scum storage. When the tank is used as a holding or dosing tank, the outlet fitting shall be provided with a watertight plug, or omitted.
- (e) Ventilation shall be provided through the fittings by means of a two (2) inch minimum space between the underside of the top of the tank and the top of the inlet "tee" fitting.
- (f) The invert of the inlet fitting shall be not less than one (1) inch and preferably three (3) inches above the invert of the outlet fitting, or the highest normal liquid level.
- (g) A convenient means of monitoring sludge and scum accumulation shall be provided, with access extending to ground level.

(h) [(g)]

The [~~septic~~] tank manufacturer shall provide with each fitting a rubber or neoprene rubber gasket meeting ASTM Specification C-564, or an appropriate coupler which the Department determines will provide a watertight connection between the fittings and the building and effluent sewer pipes.

(i) [(h)]

[An access cover of not less than six (6) inches across shall be provided above each fitting.] Manufacturer shall provide a method to attach a specified type of riser to the tank in a water tight manner.



- ~~(7)~~ [(6)] At least ten (10) percent of the inside volume of the tank shall be above liquid level to provide scum storage and reserve.
- ~~(8)~~ [~~(7)~~] In tanks with more than one (1) compartment, a four (4) inch diameter (minimum) "tee" fitting shall be placed in each common compartment wall, using the same specifications as required for the outlet fitting. The invert of this "tee" fitting shall be at the same elevation as the outlet "tee." Access ports and risers shall be provided for inspection and maintenance.
- ~~(9)~~ [~~(8)~~] Except as provided in 73-026, [septic] tanks shall be constructed of concrete, fiberglass, [~~not less than twelve (12) gauge or thicker steel,~~] or other noncorrosive materials approved by the Department.
- ~~(a)~~ [~~(b)~~] Precast concrete tanks shall have a minimum wall, compartment, and bottom thickness of two and one-half (2 1/2) inches, and shall be adequately reinforced. The top shall be at least four (4) inches thick.
- ~~(b)~~ Cast-in-place tanks shall be designed by a civil/structural engineer to the requirements of these rules and the tank construction shall be certified by the designer or qualified representative. A structural permit from the Building Codes Division or the municipality with jurisdiction (as defined in ORS 456.750(5)) is required when cast-in-place concrete tanks are used.
- ~~(c)~~ Tanks made of other noncorrosive materials shall be constructed to provide structural integrity to meet the requirements of 340-73-025(3), (4), and (5).
- ~~(c)~~ ~~Where concrete block tanks are permitted by the Agent, the tanks shall be constructed of heavyweight concrete block, eight (8) inch minimum thickness, laid on a six (6) inch (minimum) poured foundation slab. The mortared joints shall be well filled. All block holes or cells shall be filled with mortar or concrete. "K" webbing shall be installed at every third row of block. Number three (3) re bar shall be installed vertically in every block. Tank interiors shall be surfaced with at least two (2) one quarter (1/4) inch thick coats of corrosion resistant water proof sealant. The first row of blocks shall be keyed or doweled to the concrete foundation.~~
- ~~(d)~~ ~~Cast in place concrete tanks shall be constructed using the minimum sidewall thickness, bottom thickness, top thickness, and reinforcing shown in Diagram 1. All other requirements contained herein shall also be met. A structural permit is required from the Department of Commerce or the municipality with jurisdiction as defined in ORS 456.750(5). (See Diagram 1.)~~
- ~~(e)~~ ~~For cast in place septic tanks with dimensions different from those shown in Diagram 1, or when the septic tank is to be located under a road or driveway, two (2) copies of detailed plans and specifications, prepared by a registered professional engineer licensed to practice in Oregon shall be provided to the Agent for review and approval.]~~
- ~~(10)~~ [~~(9)~~] All prefabricated [septic] tanks shall be marked on the uppermost tank surface over the outlet with the liquid capacity of the tank, the burial depth limit, date of manufacture, and either the manufacturer's full business name or the number assigned by the Department.

(11) ~~[(10)]~~ Each commercial manufacturer of prefabricated ~~[septic]~~ tanks shall provide two (2) complete sets of plans and specifications, prepared by a registered professional engineer licensed to practice in Oregon, to the Department for review and approval. Plans submittal shall include the structural analysis, calculation of total gallons, operating gallons, gallons per inch, and buoyancy, including predetermined countermeasures.

(12) ~~[(11)]~~ Each commercial manufacturer of prefabricated ~~[septic]~~ tanks shall provide the Department with written certification that ~~[septic]~~ tanks for use in on-site sewage disposal systems in the State of Oregon will comply with all requirements of this Rule.

(13) An installation manual, on waterproof paper, shall be provided by the manufacturer with each tank distributed. It shall describe proper installation of the tank, riser(s) and lid, pipe connections, testing procedures, backfill, and any special precautions or limitations.

340-73-026 SEPTIC TANKS.

1. Septic tanks shall be constructed of concrete, fiberglass, steel, or other noncorrosive materials approved by the Department. Steel ~~septic~~ tanks shall be not less than twelve (12) gauge or thicker steel[,]. They shall be coated inside and out with asphalt or other protective coatings, meeting the most current American National Standards Institute UL 70 standard, Sections 25 through 43, or other coatings of equal or better performance approved by the Department.
2. The outlet of a septic tank serving a commercial facility shall be equipped with an effluent filter or treatment device meeting the requirements of rule 340-73-056, complete with a service riser that meets all the requirements of these rules.

340-73-030 DOSING SEPTIC TANK [ASSEMBLIES].

- (1) ~~[Introduction:]~~ A dosing septic tank ~~[combines the functions of a septic tank and dosing tank into one unitized assembly by withdrawing septic tank]~~ may discharge effluent with a pump or dosing siphon from the clear zone at the outlet end of the tank. These may be considered by the Department for equipment approval for installations where the design flow does not exceed 600 ~~[450]~~ gallons per day.

~~[(2) Structural:~~

~~Dosing septic tanks shall comply with applicable standards for septic tanks and for dosing tanks. Each tank shall be water tested by filling to the soffit for a period of one hour. During the test there shall be no measurable drop in water level, and no visible leakage. Each tank shall be certified watertight.]~~

(2) [(3)] Special Configuration:

~~[(a) A typical design is shown in Diagram 2.]~~

- (a) ~~[(b)]~~ The minimum total primary volume of the tank shall be 1,100 gallons for flows  $\leq$  450 gallons per day and 1,500 gallons for flows up to 600 gallons per day.
- (b) ~~[(e)]~~ The minimum submerged volume at the lowest operating liquid level shall ~~[be 900 gallons]~~ ensure optimum surge capacity, reserve storage capacity, sludge and scum capacity, and hydraulic retention time.

~~(c) [(d)]~~ Unless otherwise authorized by the Department, liquid levels shall be controlled so that no more than twenty (20) percent of the projected daily sewage flow is discharged each cycle; except that for sand filters the discharge shall be no more than ten (10) percent per cycle.

~~(d)~~ All apparatus shall be constructed and installed to facilitate ease of service without having to alter any other component.

~~(e)~~ Besides the requirements in 340-73-025(13), the installation manual shall describe the installation of pump or siphon, piping, valves, controls, and wiring to manufacturer's specifications and these rules.

~~[(e)]~~ The invert of the inlet tee shall be not less than one inch above the high operating liquid level.

~~(f)~~ Ports, or holes provided in a vault or outlet device shall be located to withdraw effluent horizontally at an elevation measured from the inside bottom of the tank of 65 to 75 percent of the lowest operating liquid depth. The net area of the ports shall be not less than 6 [20] square inches.

~~(g)~~ A convenient means of monitoring sludge and scum accumulation shall be provided, with access extending to ground level.

~~(4)~~ Features:

~~(a)~~ Design and equipment shall emphasize ease of maintenance and longevity and reliability of components, and shall be proven suitable by operational experience, test, or analysis suitable to the Department.

~~(b)~~ An easy means of electrical and plumbing disconnect shall be provided, [preventing the need for a repairman to be more than briefly exposed to the sewerage atmosphere]. All apparatus shall be constructed and installed to facilitate ease of service without having to alter any other component. The wiring must be designed such that the pump and controls can be removed without requiring disconnection.

~~(c)~~ Component materials shall be durable and corrosion resistant such as Type 316 stainless steel, suitable plastics, or 85-5-5-5 bronze.

~~(5)~~ Approvals:

Each commercial manufacturer of prefabricated dosing septic tanks shall provide two (2) complete sets of plans and specifications, prepared by a registered professional engineer licensed to practice in Oregon, to the Department for review and approval. Each manufacturer must also provide written certification to the Department that such assemblies distributed for use in on-site sewage disposal systems in Oregon will comply with all requirements of this Rule. Plans submittal shall include the structural analysis, calculation of total gallons, operating gallons, gallons per inch, and buoyancy and countermeasures.

~~(6)~~ Installation manual shall be provided with each tank distributed. It shall describe the installation of pump or siphon, piping, valves, controls, and wiring to manufacturer's specifications.]

340-73-035 DISTRIBUTION BOXES.

- (1) Distribution Boxes shall be constructed of concrete, fiberglass, or other materials acceptable to the Department.
- (2) Distribution boxes shall be constructed of durable, watertight materials, resistant to deterioration, and be ~~[watertight, and]~~ designed to accommodate watertight connections for the effluent sewer and/or header pipes. ~~[the necessary distribution laterals. (See Diagram 3 for detail.)]~~ The top, walls, and bottom of concrete distribution boxes shall be at least one and one-half (1 1/2) inches thick.
- (3) The invert elevation of all outlets shall be the same, and shall be at least two (2) inches below the inlet invert.
- (4) Each distribution box shall be provided with a sump extending at least two (2) inches below the invert of the outlets.
- ~~[(5) The minimum inside horizontal dimension measured at the bottom shall be eight (8) inches, with a minimum bottom inside surface area of one hundred sixty (160) square inches. The bottom outside surface area shall be equal to or greater than the top outside surface area.]~~
- (5) ~~[(6)]~~ Distribution box covers shall be marked with the manufacturer's full business name, or number assigned by the Department.
- (6) ~~[(7)]~~ Each manufacturer shall provide the Department with complete, detailed plans and specifications of the distribution box, and shall certify, in writing, that distribution boxes manufactured for use in on-site sewage systems in Oregon will comply with all requirements of this Rule.

340-73-040 DROP BOXES.

- (1) Drop boxes shall be constructed of concrete, fiberglass, or other materials acceptable to the Department.
- (2) Drop boxes shall be constructed of durable, watertight materials, resistant to deterioration, and be ~~[watertight, and]~~ designed to accommodate the necessary piping. ~~[(See Diagram 3 for detail.)]~~ The top, walls, and bottom of concrete drop boxes shall be at least one and one-half (1 1/2) inches thick.
- (3) The inverts of the inlet and overflow port shall be at the same elevation. The invert of the header pipe port(s) leading to the disposal trench(es) shall be six (6) inches below the inlet invert.
- (4) Drop box covers shall be marked with the manufacturer's full business name, or number assigned by the Department.
- (5) Each manufacturer shall provide the Department with complete, detailed plans and specifications of the drop box, and shall certify, in writing, that drop boxes manufactured for use in on-site sewage disposal systems in Oregon will comply will all requirements of this Rule.

**340-73-041 FILTER FABRIC.**

340-73-041 Except as otherwise allowed by the Department on a case-by-case basis, filter fabric used within on-site systems in Oregon shall meet the following specifications:

- (1) Material synthetic fabric, either spunbonded or woven.
- (2) Burst Strength, psi -- not less than 25 psi.
- (3) Air Permeability, cfm per sq. ft. -- not less than 500.
- (4) Water Flow Rate -- not less than 500 gpm per sq. ft. at 3 inches of head.
- (5) Surface Reaction to Water -- Hydrophilic.
- (6) Equivalent Opening Size -- 70 to 100 sieve.
- (7) Chemical Properties:
  - (a) Non-biodegradable.
  - (b) Resistant to acids and alkalies within a pH range of 4 to 10.
  - (c) Resistant to common solvents.

**340-73-045 DIVERSION VALVES.**

- (1) Diversion valves shall be constructed of durable material, ~~[and be of a design approved by the Department. They shall be]~~ corrosion-resistant, watertight, and designed to accommodate the inlet and outlet pipes, in a secure and watertight manner.
- ~~[(2) The manufacturer's name or number assigned by the Department shall be marked on the cover.]~~
- (2) Diversion valves shall be constructed with access to finished grade, adequate in size to provide for ease of operation and service of valve.
- (3) Each manufacturer shall provide the Department with complete, detailed plans and specifications of the diversion valve, including an instruction manual, and shall certify, in writing, that diversion valves manufactured for use in on-site sewage disposal systems in Oregon will comply with all requirements of this Rule.

**340-73-050 DOSING TANKS [CONSTRUCTION].**

- ~~[(1) Dosing tanks used in on-site sewage disposal systems in Oregon shall be watertight. They may be constructed of concrete, fiberglass, or other noncorrosive materials approved by the Department:~~
  - ~~(a) Fiberglass dosing tanks shall be a minimum three sixteenths (3/16) inch thick and constructed with a glass fiber content of 40 percent and a resin content of 60 percent, with no exposed non-resin covered glass fibers.~~
  - ~~(b) Precast concrete dosing tanks shall have a minimum wall and bottom thickness of two and one half (2 1/2) inches. The top shall be not less than four (4) inches thick. There shall be no seams in the walls or bottom.~~

- ~~(c) Cast in place concrete dosing tanks shall have a minimum wall, top, and bottom thickness of six (6) inches when the liquid capacity is twelve hundred (1200) gallons or less. A structural permit from the Department of Commerce or the municipality with jurisdiction (as defined in ORS 456.750(5)) is required when cast in place concrete dosing tanks are used. Cast in place concrete dosing tanks with a liquid capacity greater than twelve hundred (1200) gallons shall require submittal of detailed plans and specifications, prepared by a registered professional engineer licensed to practice in Oregon.~~
- ~~(2) Each dosing tank shall be constructed and reinforced to withstand the loads imposed upon the top, walls and bottom.]~~
- (1) [+] Each dosing tank employing one (1) or more pumps shall have a minimum liquid capacity equal to the projected daily sewage flow for flows up to twelve hundred (1200) gallons per day. The Department may use its discretion in sizing dosing tanks when the projected daily sewage flow is greater than twelve hundred (1200) one thousand (1,000) gallons per day. The liquid capacity shall be as measured from the invert elevation of the inlet fitting.
- ~~[(4) The inlet fitting shall be of hubbed cast iron soil pipe or other materials approved by the Department, with a minimum diameter of four (4) inches, extended to within twelve (12) inches of the tank floor. The dosing tank manufacturer shall supply a rubber or neoprene rubber compression gasket meeting the minimum requirements of ASTM specification C 564 with each fitting, or an appropriate coupler which the Department determines will provide for a watertight connection.]~~
- (2) [+] Each dosing tank [~~proposed to serve a commercial facility with a maximum projected daily sewage flow of twenty five (2500) gallons, or proposed to serve a single family dwelling,~~] shall be provided with an access manhole and a manhole cover, both having a minimum horizontal measurement of eighteen (18) inches.
- (3) [+] Each dosing tank proposed to serve a commercial facility [~~with a projected daily sewage flow greater than twenty five (2500) gallons or when~~] containing more than one (1) pump or siphon shall be provided with one or more [a] manhole accesses that [~~conforms to the following minimum horizontal dimensions~~] provide adequate area to construct, install, service, and operate the equipment in accordance with provision of these rules. [+]
- ~~(a) Opening at tank soffit thirty (30) inches;~~
- ~~(b) Inside of manway forty two (42) inches;~~
- ~~(c) Manhole cover opening twenty three (23) inches.~~
- ~~(7) Each prefabricated dosing tank shall be marked on the uppermost surface over the outlet with the liquid capacity, the burial depth limit, the date of manufacture, and the manufacturer's full business name or number assigned by the Department.~~
- ~~(8) Each commercial manufacturer of prefabricated dosing tanks shall provide two (2) complete sets of plans and specifications, prepared by a registered professional engineer, licensed to practice in Oregon, to the Department for review and approval. Each manufacturer must also provide written certification to the Department that such tanks distributed for use in on site sewage disposal systems in Oregon will comply with all requirements of this Rule. Plans submittal shall include the structural analysis, calculation of total gallons, operating gallons, gallons per inch,~~

~~and buoyancy and countermeasures.]~~

(4) Besides meeting the requirements in 340-73-025(13), the installation manual shall describe the installation of pump or siphon, piping, valves, controls, and wiring to manufacturer's specifications.

~~(5) [(9)] Dosing tanks with siphons shall be designed and sized for each specific project. The tank manufacturer shall specify the type or model of siphon, screen, and related apparatus to be used with that tank. [and shall allow sufficient clearance above the siphon dome to allow removal of the dome.]~~

(6) The inlet fitting shall extend below the lowest operating level of the pump or siphon.

340-73-055 DOSING ASSEMBLIES: EFFLUENT PUMPS, CONTROLS AND [&] ALARMS, AND DOSING SIPHONS.

(1) Design and equipment shall emphasize ease of maintenance and longevity and reliability of components, and shall be proven suitable by operational experience, test, or analysis suitable to the Department.

(2) An easy means of electrical and plumbing disconnect shall be provided. All apparatus shall be constructed and installed to facilitate ease of service without having to alter any other component.

(3) Component materials shall be durable and corrosion resistant such as Type 316 stainless steel, suitable plastics, or 85-5-5-5 bronze.

(4) ~~[(1)]~~ Pumps, Siphons, Controls, and Alarms [+] . All pumps, siphons, controls and related apparatus shall be field tested under working conditions and found to operate and perform satisfactorily in order to be considered in compliance with these rules. 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, with overload protection.

(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 Agent [Director's designee], the pump or siphon 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. The use of a screen is not required if the dosing assembly is preceded by a tank with an effluent filter. ~~[pump does not discharge into a pressurized distribution system, and the pump has a nonclog impeller capable of passing a 3/4 inch diameter solid sphere.]~~

(e) 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 a Department approved equivalently reliable switching mechanism. The switches shall be installed so that no more than [approximately] twenty (20) percent of the projected daily sewage flow is discharged each cycle, unless otherwise authorized by the Agent. The pump "off" level shall be set to maintain the liquid level above the top of the pump or to the pump manufacturer's specifications.

- (f) 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. The switching mechanism controlling the high water level alarm shall be located so that at time of activation the [dosing] tank has one-third (1/3) of its capacity remaining for effluent storage. Commercial applications shall provide at least 6 hours of reserve storage capacity based on projected daily flows.
- (g) When a system has more than one (1) pump, the Department may require they be wired into the electrical control panel to function alternately after each pumping cycle. If either pump should fail the other pump will continue to function, while an audible (user cancelable) and visual alarm (not user cancelable) indicating pump malfunction will activate. A cycle counter shall be installed in the electrical control panel for each pump.
- (h) All pump installations shall be designed with adequate sludge storage area below the effluent intake level of the pump.
- (i) All commercial systems with a design flow greater than 600 gallons shall be constructed in duplex (two or more alternating pumps) unless otherwise authorized in writing by the Department. Controls shall be provided such that an alarm shall signal when one (1) of the pumps malfunctions.
- (j) All pumps serving commercial systems shall be operated through a pre-manufactured electrical control panel. Means of monitoring pump performance through the use of elapsed time meters and cycle counters are required.
- (k) Where multiple pumps are operated in series, an electrical control panel shall be installed which will prevent the operation of a pump or pumps preceding a station which experiences a high level alarm event.

(5) [(2)] Dosing Siphons. Dosing siphons used in on-site sewage disposal systems shall comply with all of the following minimum requirements:

- (a) The siphon s [S] shall be constructed of corrosion-resistant materials.
- (b) The siphon s [S] shall be installed in accordance with the manufacturer's recommendations.
- (c) The manufacturer's installation and maintenance instructions shall be kept on site.
- (d) The installation shall include an electrically operated device which tracks the operation of the siphon by measuring cycle events and records them by means of an event counter mounted within the dwelling or structure served.



340-73-056 EFFLUENT FILTERS. Effluent filters used in on-site sewage disposal systems shall meet the following criteria:

- (1) Filters shall be of durable, resilient, corrosion resistant, non-degradable materials resistant to deformation under normal operating conditions.
- (2) Filters shall be designed to prevent the escape of sludge or scum during normal operation and in the event of a malfunction, including filter clogging.
- (3) The filter shall retain all particles greater than one eighth (1/8) inch in size.
- (4) The filter assembly shall baffle the sludge and scum layers to prevent the escape of gross solids during sludge bulking or gas ebullition..
- (5) Filters shall be designed and positioned to allow for easy, trouble-free removal from and reinstallation to the screen apparatus from the assembly.
- (6) The assembly shall be capable of withstanding stresses placed upon it by installation, operation and service.
- (7) The assembly shall perform as a conventional tank outlet, meeting the requirements of Division 73, Section 025(6), when the filter is removed.
- (8) The assembly shall be vented with nominal one half inch diameter opening to an elevation above the top of the tank.
- (9) The filter must be designed to handle the flow of the system it is to serve and not result in excessive maintenance. For a single family dwelling, maintenance is considered "excessive" when the filter requires service or cleaning more than one (1) time per year. Service shall be performed each time the tank is pumped, and in accordance with the manufacturer's specifications.
- (10) To obtain Department approval, the manufacturer of an effluent filter shall provide the Department with the necessary technical data to show that the design and materials comply with these rules. Each manufacturer shall provide an operation and maintenance manual with each unit distributed.

340-73-060 PIPE MATERIALS AND CONSTRUCTION.

- (1) Effluent Sewer Pipe:

The effluent sewer shall be constructed with materials in conformance to building sewer standards, as identified in the Oregon State Plumbing Laws and Administrative Rules. The effluent sewer pipe shall have a minimum diameter of three (3) inches. When the septic tank is fitted with an effluent filter, the minimum diameter of piping may be reduced to two (2) inches.

- (2) Distribution and Header Pipe and Fittings:

- (a) Plastic Pipe and Fittings:

- (A) Styrene-rubber plastic distribution and header pipe and fittings shall meet the most current ASTM (American Society for Testing and Materials) Specification D 2852 and Sections 5.5 and 7.8 of Commercial Standard 228, published by the U.S.

Department of Commerce. Pipe and fittings shall also pass a deflection test withstanding three hundred-fifty (350) pounds/foot without cracking by using the method found in ASTM 2412. In addition to the markings required by ASTM 2852, each manufacturer of styrene-rubber plastic pipe shall certify, in writing to the Department, that the pipe to be distributed for use in absorption facilities within the State of Oregon will comply with all requirements of this section.

- (B) Polyethylene distribution pipe in ten (10) foot lengths and header pipe in lengths of ten (10) feet or greater of which pipe and fitting shall meet the current ASTM Specification F405. Pipe and fittings shall also pass a deflection test withstanding three hundred-fifty (350) pounds per foot without cracking or collapsing by using the method found in ASTM 2412. Pipe used in absorption facilities shall be heavy duty. In addition to the markings required by ASTM F405, each manufacturer of polyethylene pipe shall certify, in writing to the Department that the pipe to be distributed for use in absorption facilities within the State of Oregon will comply with all requirements of this section.
- (C) Polyvinyl chloride (PVC) distribution and header pipe and fittings shall meet the most current ASTM Specification D-2729. Pipe and fittings shall pass a deflection test withstanding three hundred-fifty (350) pounds per foot without cracking or collapsing by using the method found in ASTM 2412. Markings shall meet requirements established in ASTM Specification D-2729, subsections 9.1.1., 9.1.2 and 9.1.4. Each manufacturer of polyvinyl chloride pipe shall certify, in writing to the Department, that pipe and fittings to be distributed for use in absorption facilities within the State of Oregon will comply with all requirements of this section.
- (D) Polyethylene smooth wall distribution and header pipe (ten (10) foot lengths) and fittings shall meet the most current ASTM specification F 810. Pipe and fittings shall also pass a deflection test of three hundred fifty (350) pounds per foot without cracking or collapsing by using the method found in ASTM 2412. Markings shall meet the requirements established in ASTM specification F 810, Section 9. Each manufacturer of polyethylene smooth wall pipe shall certify, in writing to the Department that the pipe to be distributed for use in absorption facilities within the State of Oregon will comply with all requirements of this Rule.

- (E) The four types of plastic pipe described above shall have two (2) rows of holes spaced one hundred-twenty (120) degrees apart and sixty (60) degrees on either side of a center line. For distribution pipe, a line of contrasting color shall be provided on the outside of the pipe along the line furthest away and parallel to the two (2) rows of perforations. Markings, consisting of durable ink, shall cover at least fifty (50) percent of the pipe. Markings may consist of a solid line, letters, or a combination of the two. Intervals between markings shall not exceed twelve (12) inches. The holes of each row shall be not more than five (5) inches on center and shall have a minimum diameter of one-half (1/2) inch.
- (b) Concrete tile in twelve (12) inch lengths shall meet the current ASTM Specification C 412. Each manufacturer of concrete tile shall certify, in writing to the Department, that the pipe to be distributed for use in absorption facilities within the State of Oregon will comply with all of the requirements of this section.
- (c) Clay drain tile in twelve (12) inch lengths shall meet the current ASTM Specification C 4. Tile used as part of an absorption facility shall bear the ASTM number above and some identification as to which quality standard it meets (Standard, Extra-Quality, Heavy-Duty). In addition to the markings required above, each manufacturer of clay tile shall certify, in writing to the Department, that the pipe to be distributed for use in absorption facilities within the State of Oregon shall comply with all of the requirements of this section.
- (d) Bituminized fiber solid pipe and fittings shall meet the current ASTM Specification D 1861. Perforated bituminized fiber pipe shall meet the current ASTM Specification D 2312. Each length of pipe and each fitting shall be marked with the nominal size, the manufacturer's name or trademark, or other symbol which clearly identifies the manufacturer and the appropriate ASTM specification number above. Markings on pipe shall be spaced at intervals not greater than two (2) feet. In addition to the markings required above, each manufacturer of bituminized pipe shall certify, in writing to the Department, that the pipe to be distributed for use in absorption facilities within the State of Oregon shall comply with all requirements of this section. In addition, all bituminized pipe that is to be installed as part of an absorption facility shall comply with the following requirements. The pipe shall have two rows of holes spaced one hundred-twenty (120) degrees apart and sixty (60) degrees on either side of a center line. For distribution pipe, a line of contrasting color shall be provided on the outside of the pipe along the line furthest away and parallel to the two (2) rows of perforations. Markings, consisting of durable ink, shall cover at least fifty (50) percent of the pipe. Markings may consist of a solid line, letters, or a combination of the two. Intervals between markings shall not exceed twelve (12) inches. The holes of each row shall not be more than five (5) inches on center and shall have a minimum diameter of one-half (1/2) inch.

(e) Polyvinyl chloride (PVC) pressure transport pipe, pressure manifolds, and pressure lateral pipe and fittings shall meet the current requirements for Class 160 PVC 1120 pressure pipe as identified in ASTM Specification D-2241. The pipe and fittings shall be marked as required by ASTM Specification D-2241.

~~[(f) Gravel less disposal trench systems shall be constructed using corrugated polyethylene pipe, fittings and couplings that comply with the requirements of ASTM F 667. The pipe shall have two rows of holes spaced approximately one hundred twenty (120) degrees apart, and approximately one hundred twenty (120) degrees apart each from the location stripe which shall be a contrasting color. The drain holes shall be a minimum of one half (1/2) inch diameter. The minimum outlet area shall be one (1) square inch per lineal foot of pipe. There shall be at least one (1) drain hole present in the valley of each corrugation. The gravel less disposal trench pipe shall have a minimum inside diameter of ten (10) inches, and be encased in a factory installed filter fabric wrap acceptable to the Department. Each manufacturer of this pipe shall certify in writing to the Department that the pipe and fittings to be distributed for use in absorption facilities within the State of Oregon will comply with all requirements of this subsection.]~~

**NONWATER-CARRIED WASTE DISPOSAL FACILITIES, MATERIALS, AND CONSTRUCTION.**

**340-73-065 PRIVIES AND PORTABLE TOILET SHELTERS.**

- (1) Privies and portable toilet shelters shall comply with the following general requirements:
  - (a) Structures shall be free of hostile surface features, such as exposed nail points, sharp edges, and rough or broken boards, and shall provide privacy and protection from the elements.
  - (b) Building ventilation shall be equally divided between the bottom and top halves of the room. All vents shall be screened with sixteen (16) mesh screen of durable material.
  - (c) Buildings shall be of fly-tight construction and shall have self-closing doors with an inside latch.
  - (d) Pits, tanks or vaults shall be vented to the outside atmosphere by a flue or vent stack having a minimum inside diameter of four (4) inches. Vents shall extend not less than twelve (12) inches above the roof.
  - (e) Interior floors, walls, ceilings, partitions, and doors shall be finished with readily cleanable impervious materials resistant to wastes, cleansers and chemicals. Floors and risers shall be constructed of impervious material and in a manner which will prevent entry of vermin.
  - (f) Seat tops shall be not less than twelve (12) inches nor more than sixteen (16) inches above the floor. The seat openings shall be covered with attached, open-front toilet seats with lids, both of which can be raised to allow use as a urinal.
  - (g) The distance between the front of the riser and the building wall shall not be less than twenty-one (21) inches.
- (2) Privies. In addition to complying with the requirements specified in Section 1 of this Rule, privies shall be provided with:
  - (a) Adequate ventilation shall be provided to allow for the free escape of gases and odors. [~~Vents equal in area to not less than one fifth (1/5) the floor area or a minimum of three (3) square feet, whichever is greater.~~]
  - (b) A minimum clear space of twenty-four (24) inches between seats in multiple-unit installations and a clear space of twelve (12) inches from the seat opening to the building wall in both single and multiple units.
- (3) Portable Toilet Shelters. Portable toilet shelters may be prefabricated, skid mounted, or mobile. In addition to complying with the requirements specified in Section 1 of this Rule, portable toilet shelters shall:
  - (a) Provide screened ventilation to the outside atmosphere having a minimum area of one (1) square foot per seat.
  - (b) Provide a minimum floor space outside of the riser of nine (9) square feet per seat.
  - (c) Be furnished with a toilet tissue holder for each seat.
  - (d) Be located in areas readily accessible to users and to pumping/cleaning services.

- (e) Provide separate compartments with doors and partitions or walls of sufficient height to insure privacy in multiple-unit shelters except that separate compartments are not required for urinals.

**340-73-070 UNSEALED EARTH PITS FOR PRIVIES.**

- (1) The pit shall be constructed of such material and in such a manner as to prevent rapid deterioration, provide adequate capacity, and facilitate maintenance in a satisfactory manner under ordinary conditions of usage.
- (2) The pit shall provide a capacity of fifty (50) cubic feet for each seat installed in the privy building and shall be at least five (5) feet deep. The area within sixteen (16) inches of the surface grade shall not be counted as part of the fifty (50) cubic-foot capacity.
- (3) Pit cribbing shall fit firmly and be in uniform contact with the earth walls on all sides, and shall rise at least six (6) inches above the original ground line and descend to the full depth of the pit. However, pit cribbing below the soil line may be omitted in rock formations.

**340-73-075 SELF-CONTAINED NONWATER-CARRIED TOILET FACILITIES.**

- (1) General Standards. All self-contained nonwater-carried toilet facilities shall comply with the following requirements:
  - (a) They shall have water-tight chambers constructed of reinforced concrete, plastic, fiberglass, metal, or of other material of acceptable durability and corrosion resistance, approved by the Department, and designed to facilitate the removal of the wastes.
  - (b) Black wastes shall be stored in an appropriate chamber until removal for final disposal elsewhere. Wastes shall be removed from the chamber whenever necessary to prevent overflow.
  - (c) Chemicals containing heavy metals, including but not limited to copper, cadmium and zinc, shall not be used in self-contained toilet facilities.
  - (d) All surfaces subject to soiling shall be impervious, easily cleanable, and readily accessible.
- (2) Vault Toilet Facilities:
  - (a) The minimum capacity of vaults shall be three hundred-fifty (350) gallons or, in places of employment, one hundred (100) gallons per seat.
  - (b) Caustic shall be added routinely to vault chambers to control odors.
- (3) Chemical Toilet Facilities:
  - (a) Toilet bowls shall be constructed of stainless steel, plastic, fiberglass, ceramic or of other material approved by the Department.
  - (b) Waste passages shall have smooth surfaces and be free of obstructions, recesses or cross braces which would restrict

or interfere with flow of black wastes.

- (c) Biocides and oxidants shall be added to waste detention chambers at rates and intervals recommended by the chemical manufacturer and approved by the Department.
- (d) Chambers and receptacles shall provide a minimum storage capacity of fifty (50) gallons per seat.
- (e) Portable shelters housing chemical toilets shall display the business name of the licensed sewage disposal service that is responsible for servicing them.

**340-73-080 CONSTRUCTION OF GRAY WATER WASTE DISPOSAL SUMPS.**

A gray water waste disposal sump shall consist of a receiving chamber, settling chamber, and either a seepage chamber or disposal trench. [~~An acceptable design for gray water waste disposal sumps is shown in CAR 340, Division 71, Diagrams 14 and 15.~~]

**340-73-085 FLEXIBLE MEMBRANE LINERS FOR SAND FILTERS TREATING SEPTIC TANK EFFLUENT.**

- (1) Unsupported polyvinyl chloride (PVC) shall have the following properties:

	Property	Test Method	
(a)	Thickness	ASTM D1593 30 mil, minimum Para <del>[8.1.3]</del> <u>9.1.3</u>	
(b)	Specific Gravity (minimum)	ASTM D792 Method A	
(c)	Minimum Tensile Properties (each direction)	ASTM D882	
	(A) Breaking Factor (pounds/inch width)	Method A or B (1 inch wide)	69
	(B) Elongation at Break (percent)	Method A or B	300
	(C) Modulus (force) at 100% Elongation (pounds/inch width)	Method A or B	27
(d)	Tear Resistance (pounds, minimum)	ASTM D1004 Die C	8
(e)	Low Temperature	ASTM D1790	-20°F
(f)	Dimensional Stability (each direction, percent change maximum)	ASTM D1204 212°F, 15 min.	±5
(g)	Water Extraction	ASTM D1239	-0.35% max.
(h)	Volatile Loss	ASTM D1203 Method A	0.7% max.
(i)	Resistance to Soil Burial (percent change maximum in original value)	ASTM D3083	

(A)	Breaking Factor		-5
(B)	Elongation at Break		-20
(C)	Modulus at 100% Elongation		±10
(j)	Bonded Seam Strength (factory seam, breaking factor, ppi width)	ASTM D3083	55.2
(k)	Hydrostatic Resistance	ASTM D751 Method A	82

(2) Installation Standards:

- (a) Patches, repairs and seams shall have the same physical properties as the parent material.
- (b) Site considerations and preparation:
  - (A) The supporting surface slopes and foundation to accept the liner shall be stable and structurally sound including appropriate compaction. Particular attention shall be paid to the potential of sink hole development and differential settlement.
  - (B) Soil stabilizers such as cementations or chemical binding agents shall not adversely affect the membrane; cementations and chemical binding agents may be potentially abrasive agents.
- (c) Only fully buried membrane liner installation shall be considered to avoid weathering.
- (d) Unreinforced liners have high elongation and can conform to irregular surfaces and follow settlements within limits. Unreasonable strain reduces effective thickness and may reduce life expectancy by lessening the chemical resistance of the thinner (stretched) material. Every effort shall be made to minimize the strain (or elongation) anywhere in the flexible membrane liner.
- (e) Construction and installation [~~ef-site~~]:
  - (A) Surface condition:
    - (i) Preparation of earth subgrade. The prepared subgrade shall be of soil types no larger than Unified Soil Classification System (USCS) sand (SP) to a minimum of four (4) inches below the surface and free from loose earth, rock, fractured stone, debris, cobbles, rubbish and roots. The surface of the completed subgrade shall be properly compacted, smooth, uniform and free from sudden changes in grade. Importing suitable soil may be required.
    - (ii) Maintenance of subgrade. The earth subgrade shall be maintained in a smooth, uniform and compacted condition during installation of the lining.
  - (B) Climatic conditions:
    - (i) Temperature. The desirable temperature range for membrane installation is 42°F to 78°F.



Lower or higher temperatures may have an adverse effect on transportation, storage, field handling and placement, seaming and backfilling and attaching boots and patches may be difficult. Placing liner outside the desirable temperature range shall be avoided.

- (ii) Wind. Wind may have an adverse effect on liner installation such as interfering with liner placement. Mechanical damage may result. Cleanliness of areas for boot connection and patching may not be possible. Alignment of seams and cleanliness may not be possible. Placing the liner in high wind shall be avoided.
  - (iii) Precipitation. When field seaming is adversely affected by moisture, portable protective structures and/or other methods shall be used to maintain a dry sealing surface. Proper surface preparation for bonding boots and patches may not be possible. Seaming, patching and attaching 'boots' shall be done under dry conditions.
- (C) Structures. [~~Penetration of a flexible liner by any designed means shall be avoided.~~] Where penetrations are necessary, [~~such as horizontal and vertical pipes, it is essential to obtain a secure, liquid tight seal between the pipes and the flexible liner.~~] Liners shall be attached to pipes with a mechanical type seal supplemented by a chemically compatible caulking or adhesives to effect a liquid-tight seal. The highest order of compaction shall be provided in the area adjacent to pipes to compensate for any settlement.
- (D) Liner Placement:
- (i) Size. The final cut size of the liner shall be carefully determined and ordered to generously fit the container geometry without field seaming or excess straining of the liner material.
  - (ii) Transportation, handling and storage. Transportation, handling and storage procedures shall be planned to prevent material damage. Material shall be stored in a secured area and protected from adverse weather.
  - (iii) Site inspection. A site inspection shall be carried out by the Agent and the installer prior to liner installation to verify surface conditions, etc.
  - (iv) Deployment. Panels shall be positioned to minimize handling. Seaming should not be necessary. Bridging or stressed conditions shall be avoided with proper slack allowances for shrinkage. The liner shall be secured to prevent movement and promptly backfilled.
  - (v) Anchoring trenches. The liner edges should be secured frequently in a backfilled trench.
  - (vi) Field seaming. Field seaming, if absolutely necessary, shall only be attempted when weather conditions are favorable. The contact surfaces

of the materials should be clean of dirt, dust, moisture, or other foreign materials. The contact surfaces shall be aligned with sufficient overlap and bonded in accordance with the suppliers recommended procedures. Wrinkles shall be smoothed out and seams should be inspected by nondestructive testing techniques to verify their integrity. As seaming occurs during installation, the field seams shall be inspected continuously and any faulty area repaired immediately.

- (vii) Field repairs. It is important that traffic on the lined area be minimized. Any necessary repairs to the liner shall be patched using the same lining material and following the recommended procedure of the supplier.
- (viii) Final inspection and acceptance. Completed liner installations shall be visually checked for punctures, rips, tears and seam discontinuities before placement of any backfill. At this time the installer shall also manually check all factory and field seams with an appropriate tool. In lieu of or in addition to manual checking of seams by the installer, either of the following tests may be performed:

- (I) Wet Test: The lined basin shall be flooded to the one (1) [~~four (4)~~] foot level with water after inlets and outlets have been plugged. There shall not be any loss of water in a 24 hour test period. [Workmanship shall be accepted if leakage rate in a 24 hour period is no greater than 0.25 inches.]
- (II) Air Lance Test: [~~Inspect all seams (factory and field) for unbonded areas using an air nozzle directed on the upper seam edge and surface to detect loose edges.~~] Check all bonded seams using a minimum 50 PSI (gauge) air supply directed through a 3/16 inch (typical) nozzle, held not more than 2 inches from the seam edge and directed at the seam edge. Riffles indicate unbonded areas within the seam, or other undesirable seam construction.

~~[(3) Operation and Maintenance Standards. The owner/purchaser of a sand filter system must recognize that he assumes the continuous responsibility to preserve the installation as near as practical in its "as built" state. This responsibility includes the control or erosion of any "mound," the control and removal of large perennial plants, the fencing out of livestock and the control of burrowing animals.]~~

#### IMPLEMENTATION DATE

340-73-090

These rules become effective April 1, 1995. Until these rules become effective, existing rules remain in effect. Nothing in this Section is intended to prevent the Department from taking any action necessary to prepare for implementing the new rule.



# NOTICE OF PROPOSED RULEMAKING HEARING

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

Department of Environmental Quality

Water Quality Division

OAR Chapter 340-13,14,45,52,71,73

<b>DATE:</b>	<b>TIME:</b>	<b>LOCATION:</b>
July 22, 1994	3 pm	Department of Environmental Quality, N.W. Region, 2020 S.W. Fourth, Suite 400 Portland Or <b>Room A</b>
July 25, 1994	3 pm	Blue Mountain Community College 2411 N.W. Carden Pendleton, OR <b>Morrow Hall, Room M-130</b>
July 26, 1994	3 pm	Cascade Natural Gas Building 334 N.E. Hawthorne Bend, OR <b>Public Meeting Room</b>
July 27, 1994	<b>5 pm</b>	Jackson County Courthouse 10 South Oakdale Medford, OR <b>Auditorium</b>
July 28, 1994	3 pm	Springfield City Hall 225 5th Street Springfield, OR <b>Council Meeting Room</b>

**HEARINGS OFFICER(s):** Charles K. Ashbaker

**STATUTORY AUTHORITY:** ORS 454.625; ORS 454.780; and ORS 468.020

**ADOPT:** OAR 340-71-162, 302

**AMEND:** OAR 340-14  
OAR 340-45  
OAR 340-52  
OAR 340-71  
OAR 340-73

**REPEAL:** OAR 340-71-350.

**NOTE: In addition to the proposed rule changes listed above, the DEQ Environmental Quality Commission may consider limited pilot projects through which certain on-site sewage disposal activities may be contracted out to private contractors.**

- This hearing notice is the initial notice given for this rulemaking action.
- This hearing was requested by interested persons after a previous rulemaking notice.
- Auxiliary aids for persons with disabilities are available upon advance request.

**SUMMARY:**

These proposed rules would amend the existing rules for on-site sewage disposal in Oregon. The rules set requirements for siting, construction, and operation of on-site sewage disposal systems. The rules address license requirements for people who install and service on-site sewage disposal systems. The changes would provide flexibility for installation of on-site systems. Operating permits will be required of larger systems or systems that use distinctive technology or are high in waste strength. Technical improvements will be required for some materials and systems, i.e. septic tanks.

These proposed rules are intended to keep pace with changes in the field of on-site sewage disposal. They allow for consideration of new technology. They will allow for increased responsibility of the installer and in turn require increased knowledge of the rules by those people that service and install on-site systems.

Divisions 14, 45 and 52 will be modified to indicate that permitting rules and associated fees for on-site systems are in Division 71 and 73.

**LAST DATE FOR COMMENT: August 4, 1994.**

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

<b>AGENCY RULES COORDINATOR:</b>	Chris Rich, (503) 229-6775
<b>AGENCY CONTACT FOR THIS PROPOSAL:</b>	Sherman Olson,
<b>ADDRESS:</b>	Water Quality Division
	811 S. W. 6th Avenue
	Portland, Oregon 97204
<b>TELEPHONE:</b>	(503) 229-6443

or Toll Free 1-800-452-4011

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



Signature

6/15/94

Date

## A CHANCE TO COMMENT ON...

Modification of Rules Affecting On-Site Sewage Disposal  
OAR Chapter 340, Divisions 71, 73, 14, 45, and 52

Date Issued: June 22, 1994  
Public Hearings: July 22, 25, 26,  
27, & 28, 1994  
Comments Due: August 4, 1994

**WHO IS AFFECTED:** Those who are involved with the construction of on-site sewage disposal systems, those who are manufacturing equipment used for on-site sewage disposal systems, and those who are regulating these systems are affected by these rule modifications.

**WHAT IS PROPOSED:** The Department has been working with a Technical Advisory Committee for the past year in reviewing the on-site sewage disposal program and rules. Some of the changes proposed are housekeeping changes, while others are quite significant. The intent is to better address new technology, require better operation and maintenance of complex systems, move all rules affecting on-site sewage disposal into Divisions 71, 72 and 73 of Oregon Administrative Rules Chapter 340, and to provide more flexibility for those involved in administering the rules.

In addition to those issues which the Technical Advisory Committee has been working on for the past several months, the Environmental Quality Commission may consider limited pilot projects through which certain on-site sewage disposal activities may be contracted out to private contractors. This concept is a late development and has not been part of the deliberations over the past year. However, the Department is inviting public comments on this concept.

**WHAT ARE THE HIGHLIGHTS:** A summary of the proposed rule changes is attached.

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

DATE:	TIME:	LOCATION:
July 22, 1994	3 pm	Department of Environmental Quality, Northwest Region 2020 S.W. Fourth, Suite 400 Portland, OR - Room A

- OVER -



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

11/1/86

**FOR FURTHER INFORMATION:**

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

<b>DATE:</b>	<b>TIME:</b>	<b>LOCATION:</b>
July 25, 1994	3 pm	Blue Mountain Community College 2411 N.W. Carden Pendleton, OR - <b>Morrow Hall, Room M-130</b>
July 26, 1994	3 pm	Cascade Natural Gas Building 334 N.E. Hawthorne Bend, OR - <b>Public Meeting Room</b>
July 27, 1994	5 pm	Jackson County Courthouse 10 South Oakdale Medford, OR - <b>Auditorium</b>
July 28, 1994	3 pm	Springfield City Hall 225 5th Street Springfield, OR - <b>Council Meeting Room</b>

Written comments must be received by 5:00 p.m. on August 4, 1994. Comments must be sent or delivered to the following address:

Department of Environmental Quality  
Water Quality Division  
811 S.W. 6th Avenue  
Portland, OR 97204

Because of the size of this rule package (136 pages), a summary only is being supplied in this mailing. A complete copy of the proposed rule modifications package may be reviewed at the above address as well as each of the Department's field offices and contract county offices. A list of these other locations is attached. A copy of the proposed rules may be obtained after July 1, 1994 by calling the Department's Water Quality Division at (503) 229-6474, or by calling toll free in Oregon 1-800-452-4011. To obtain additional information about these materials, please call Sherman Olson at (503) 229-6443, or the above toll free number.

**WHAT HAPPENS NEXT:** The Department will evaluate comments received and will make a recommendation to the Environmental Quality Commission. Interested parties can request to be notified of the date the Commission will consider the matter by writing to the Department at the above address. It is currently anticipated that the Commission will act on the rule modifications at their regular meeting August 26, 1994.

**ACCOMMODATION OF DISABILITIES:** In order to accommodate persons with disabilities, please notify the Department of any special physical or language accommodations you may need as far in advance of the meeting dates as possible. To make these arrangements, contact Ed Sale in Public Affairs at (503) 229-5766. For the hearing impaired, the Department's TDD number is (503) 229-6993.

**ACCESSIBILITY INFORMATION:** This publication is available in alternate format (e.g. large print, braille) upon request. Please contact Ed Sale in DEQ Public Affairs at (503) 229-5766 to request an alternate format.

Date: June 22, 1994

**To:** Interested and Affected Public

**Subject:** Rulemaking Proposal - Modification of On-site rules

This memorandum contains information on a proposal by the Department of Environmental Quality (DEQ) to adopt new rules/rule amendments regarding the on-site sewage disposal program. It includes modifications to OAR Chapter 340 Divisions 71, 73, 14, 45, and 52.. This proposal would make several housekeeping changes to the on-site rules in addition to making substantive changes. It also brings applicable portions of Divisions 14, 15, 45, and 52 into Division 71 so that all rules pertaining to on-site sewage disposal are in the same Division.

### What's in this Package?

Attachments to this memorandum provide details on the proposal as follows:

- |              |  |
|--------------|--|
| Attachment A | Summary of Proposed Rule Changes *   |
| Attachment B | The "Legal Notice" of the Rulemaking Hearing. (required by ORS 183.335)  |
| Attachment C | The official Rulemaking Statements for the proposed rulemaking action. (required by ORS 183.335)                 |
| Attachment D | The official statement describing the fiscal and economic impact of the proposed rule. (required by ORS 183.335) |

\* Note: Because of the length of this rule package (136 pages), the entire package is not being provided in this mailing. However, in about 1 week, copies will be available, upon request, and copies will be available for viewing at each of the DEQ field offices as well as contract county offices.

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



- Attachment E      A statement providing assurance that the proposed rules are consistent with statewide land use goals and compatible with local land use plans.
- Attachment F      Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.

## Hearing Process Details

You are invited to review these materials and present written or oral comment in accordance with the following:

**Date:**            July 22, 1994  
**Time:**            3:00 pm  
**Place:**            DEQ Northwest Region Office, 2020 S.W. Fourth, Suite 400,  
Portland - Conference Room A, Fourth Floor

July 25, 1994  
3:00 pm  
Blue Mountain Community College, 2411 N.W. Carden, Pendleton,  
Morrow Hall, Room M-130

July 26, 1994  
3:00 pm  
Cascade Natural Gas Building, 334 N.E. Hawthorne, Bend  
Public Meeting Room

July 27, 1994  
5:00 pm  
Jackson County Courthouse, 10 South Oakdale, Medford  
Auditorium

July 28, 1994  
3:00 pm  
Springfield City Hall, 225 5th St., Springfield  
Council Meeting Room

**Deadline for submittal of Written Comments:** August 4, 1994, 5:00 pm

Charles K. Ashbaker will be the Presiding Officer at this hearing. Following close of the public comment period, the Presiding Officer will prepare a report which summarizes the oral testimony presented and identifies written comments submitted. The Environmental Quality Commission (EQC) will receive a copy of the Presiding Officer's report and all written comments submitted. The public hearing will be tape recorded, but the tape will not be transcribed.

If you wish to be kept advised of this proceeding and receive a copy of the recommendation that is presented to the EQC for adoption, you should request that your name be placed on the mailing list for this rulemaking proposal.

### **What Happens After the Public Comment Period Closes**

The Department will review and evaluate comments received, and prepare responses. Final recommendations will then be prepared, and scheduled for consideration by the Environmental Quality Commission (EQC).

The EQC will consider the Department's recommendation for rule adoption during one of their regularly scheduled public meetings. The targeted meeting date for consideration of this rulemaking proposal is August 26, 1994. This date may be delayed if needed to provide additional time for evaluation and response to testimony received in the hearing process. You will be notified of the time and place for final EQC action if you present oral testimony at the hearing or submit written comment during the comment period or ask to be notified of the proposed final action on this rulemaking proposal.

The EQC expects testimony and comment on proposed rules to be presented during the hearing process so that full consideration by the Department may occur before a final recommendation is made. The EQC may elect to receive comment during the meeting where the rule is considered for adoption; however, such comment will be limited to the effect of changes made by the Department after the public comment period in response to testimony received. The EQC strongly encourages people with concerns regarding the proposed rule to communicate those concerns to the Department at the earliest possible date so that an effort may be made to understand the issues and develop options for resolution where possible.

### **Background on Development of the Rulemaking Proposal**

### What is the problem

Current on-site sewage disposal rules are out-of-date. There is new technology which cannot be fully utilized the way the rules are currently written. The current rules provide very little flexibility to staff in making judgement decisions. There are segments of rules affecting on-site sewage disposal systems which are located in several different Divisions of Chapter 340.

### How does this proposed rule help solve the problem

The rules as drafted add more flexibility for the Department to make judgement decisions. They establish an on-going Technical Review Committee to evaluate new technology and to make recommendations to the Department on their implementation. In order to make it easier for the regulated community, those portions of Divisions 14, 15, 45, and 52 which regulate certain aspects of the on-site sewage disposal program have been extracted and placed in Division 71.

### How was the rule developed

The rule has been developed over the past 12 months through the use of a Technical Advisory Committee. The Committee has met monthly. In addition, the Committee was divided into an Administrative Subcommittee and Technical Subcommittee which met separately, at least monthly.

### How does it affect the public, regulated community, other agencies

The modified rules will add some new requirements to septic tanks which will add some additional cost for new systems. The rules will require on-site system installers to take an examination to show their understanding of the on-site rules. The rules will require some facilities such as intermediately sized disposal fields, larger sand filters, facilities with high waste strength, and holding tanks to have a renewable operational permit which will require routine maintenance of the system. The rules will provide a mechanism for getting new technology evaluated.

Note: In addition to the proposed rule changes listed in this notice, the Environmental Quality Commission may consider limited pilot projects through which certain on-site sewage disposal activities may be contracted out to private contractors. This concept is

a late development and has not been discussed with the Technical Advisory Committee. The Department is inviting public comments on this concept.

**How does the rule relate to federal requirements or adjacent state requirements**

The federal government does not have rules regulating on-site disposal systems, with the exception of those requiring a permit under the Underground Injection Control program. These rules make no change in that relationship.

**How will the rule be implemented**

Portions of the rules will go into effect immediately upon adoption by the EQC and filing with the Secretary of State. Those portions related to testing of on-site system installers will not go into effect until July 1995. On-site sewage disposal work is on-going work.

**Are there time constraints**

There are no time constraints for this rule action.

**Contact for more information**

If you would like more information on this rulemaking proposal, a full copy of the rules, or would like to be added to the mailing list, please contact:

Sherman Olson  
DEQ Water Quality  
811 S. W. Sixth Street  
Portland, OR 97204  
Phone 229-6443 or  
Toll Free 1(800) 452-4011  
TTY 229-6993

# SUMMARY OF PROPOSED CHANGES TO ON-SITE SEWAGE DISPOSAL RULES

## DIVISION 71

Some of the general goals of this rule revision are to provide more flexibility to the Department and Agent in administering the on-site sewage disposal program, provide better oversight of large and complex systems which are likely to fail if not properly maintained, bring all rules which regulate on-site sewer disposal systems into one set of rules, and update rules to the standards being used today.

In addition to the major rule revisions listed in this summary, there are several "housekeeping" changes which are not listed in this summary.

### 340-71-100 DEFINITIONS

Definitions for "Building Sewer", "Filter Material", "Strength of Wastewater", and "Water Pollution" were deleted because they were redundant, replaced by other terms, or no longer used.

Definitions for "Aerobic Sewage Treatment Facility", "Construction", "Conventional Sand Filter", "Disposal Field", "Emergency Repair", and "Sewage Disposal Service" were modified.

Definitions for "Biochemical Oxygen Demand (BOD)", "Design Criteria", "Drain Media", "Effluent Filter", "Hydrasplitter", "Residential Strength Wastewater", "Sand Filter Media", "Septage", "Split Waste System", "Surface Waters", "Total Kjeldahl Nitrogen (TKN)", "Underdrain Media", and "WPCF Permit" were added.

All definitions have been located in this definition section of the rules. Definitions currently found in the text of the rules have been removed.

### 340-71-120 JURISDICTION AND POLICY

These rules were changed to better define the delineation of responsibility between the Department and local governments acting as the Department's Agents. It also discusses the use of general permits for some of the categories of systems which will require renewable Water Pollution Control Facilities (WPCF) permits, rather than just a construction permit. It establishes the use of a Technical Review Committee for the Department to use in evaluating new technology, rule implementation, and regulation of sewage disposal service workers.

## 340-71-130 GENERAL STANDARDS, PROHIBITIONS AND REQUIREMENTS

There have been several changes made to this rule. The most noteworthy is the requirement for standard on-site systems with a flow greater than 2,500 gallons per day, systems which treat sewage which is not residential strength wastewater, aerobic systems and sand filters with design flow exceeding 600 gallons per day, and holding tanks to be placed on a WPCF Permit. The WPCF permit will be ongoing and renewable. The permit will establish maintenance and monitoring requirements.

Applicable portions of the performance bond requirements, found in Oregon Administrative Rules Chapter 340 Division 15, have been brought into this rule in order to consolidate all on-site rules into one set of rules.

## 340-71-140 FEES -- GENERAL

The only change to these rules being proposed in this document is the addition of permit fees for WPCF permit. A major rewrite of the entire fee schedule is being considered in a separate rule revision package. Most of these fees already exist but are found in Division 45.

## 340-71-160 PERMIT APPLICATION PROCEDURES -- GENERAL REQUIREMENTS

The rule was changed to allow the Agent discretion in waiving the requirement for an evaluation report for a system repair or alteration. It also provides for approval of the use of a septic tank as a temporary holding tank when soil conditions are too wet to allow for the construction of the disposal field.

## 340-71-162 PERMIT APPLICATION PROCEDURES -- WPCF

This is a new rule which establishes the procedures for applying for and receiving a WPCF permit. Portions of Division 14 and Division 45 were used in writing this rule. It also describes those portions of Divisions 71, 72, and 73 which do not apply to WPCF permits.

## 340-71-170 PRE-COVER INSPECTIONS

This rule has been changed to better define what is expected from an installer before the Agent can waive a pre-cover inspection.

### 340-71-205 AUTHORIZATION TO USE EXISTING SYSTEMS

The requirements associated with getting an Authorization Notice are better defined. The rule also eliminates the annual renewal of a personal hardship Authorization Notice.

### 340-71-220 STANDARD SUBSURFACE SYSTEMS

There have been several changes made to these rules, particularly as they pertain to septic tank installation. The sizing criteria has changed, pre-treatment is required when the waste is stronger than residential strength wastewater, greater accessibility is required, and an effluent filter is required. Some clarifications have also been made in the disposal trench design and the relationship between the septic tank and disposal system.

### 340-71-260 ALTERNATIVE SYSTEMS, GENERAL

This rule has been changed to allow the Director or Designee to authorize minimum standards for new technologies or modification of existing standards.

### 340-71-265 CAPPING FILLS

A requirement that filter fabric be used between the drain media and the fill cap has been added to the rule.

### 340-71-270 EVAPOTRANSPIRATION-ABSORPTION (ETA) SYSTEMS

These systems have been limited to waste flows not exceeding 600 gallons per day. Some other minor changes have been proposed.

### 340-71-275 PRESSURIZED DISTRIBUTION SYSTEMS

Minor changes are proposed, the most significant of which is the requirement for orifice shields to keep the orifices from being blocked.

### 340-71-280 SEEPAGE TRENCH SYSTEM

No changes proposed.

340-71-285 REDUNDANT SYSTEMS

No changes proposed.

340-71-290 CONVENTIONAL SAND FILTER SYSTEMS

The specifications for the sand filter media and the drain media have been changed to more closely relate to available materials. This should make sand filter media less costly. Several other changes are proposed with regard to location of water table, slopes, and soil conditions. In addition, a section regarding "Graveless Absorption Facility Option" has been added.

340-71-295 CONVENTIONAL SAND FILTER DESIGN AND CONSTRUCTION

The use of sand filters will be limited to "residential strength wastewater". Several changes have been made in the design criteria of conventional sand filters.

340-71-300 OTHER SAND FILTER DESIGNS

Sand filters with a projected daily flow of more than 600 gallons must be on a WPCF permit.

340-71-302 RECIRCULATING GRAVEL FILTERS

A new section on the design of recirculating gravel filters has been added to the rules.

340-71-305 SAND FILTER SYSTEM OPERATION AND MAINTENANCE

Sand filters with a projected daily flow of more than 600 gallons must be on a WPCF permit. Operation and maintenance requirements will be established in the permit.

340-71-310 STEEP SLOPE SYSTEMS

No changes proposed.



#### 340-71-315 TILE DEWATERING SYSTEM

The requirement for the outlet pipe to be Schedule 80 PVC or ABS with a flap gate or grill has been deleted from the rule. The rule has also been changed to allow for the use of corrugated pipe as an alternative material. This will reduce the cost of this system.

#### 340-71-320 SPLIT WASTE SYSTEMS

A reduced size soil absorption facility will not be allowed for the gray water from a split waste system. Also Gray water alone shall not be discharged to a sand filter.

#### 340-71-325 GRAY WATER WASTE DISPOSAL SUMPS.

No changes proposed.

#### 340-71-330 NONWATER-CARRIED SYSTEMS.

No changes proposed.

#### 340-71-340 HOLDING TANKS

Holding tanks will be required to have a WPCF operational permit.

#### 340-71-345 AEROBIC SYSTEMS

Aerobic systems with a projected daily flow of more than 600 gallons will be required to have a WPCF operational permit.

#### 340-71-350 LOW FLUSH TOILETS

Since these toilets are universally required, this rule has been deleted.

#### 340-71-355 GRAVEL-LESS DISPOSAL TRENCH SYSTEMS.

Because of a high failure history of these systems, this section as previously written has been deleted from the rules. It has been replaced with procedures for getting approval for newer gravel replacement technology.

340-71-360 DISPOSAL TRENCHES IN SAPROLITE

No changes proposed.

340-71-400 GEOGRAPHIC AREA SPECIAL CONSIDERATIONS

This rule has been modified to reduce the acreage necessary to receive special considerations. The rule has also been changed to better define when the Agent can waive the pre-cover inspection. A section has been added to allow the Agent to also waive the site evaluation under certain conditions east of the Cascade Range.

340-71-401 MID-MULTNOMAH COUNTY, CESSPOOL AND SEEPAGE PIT USE

No changes proposed.

340-71-410 through 445 These rules pertain to the variance program.

No changes proposed.

340-71-450 EXPERIMENTAL SYSTEMS

Only minor changes are proposed for this rule. The responsibility of monitoring the operation of the system is transferred from the Department to the owner.

340-71-460 MORATORIUM AREAS

Certain areas which are now served by sewers have been removed from the list of moratorium areas.

340-71-500 COMMUNITY SYSTEMS

All community systems, with flows exceeding 2,500 gallons per day, will be required to have a WPCF operational permit.

## 340-71-520 LARGE SYSTEMS

All large systems, with flows exceeding 2,500 gallons per day, will be required to have a WPCF operational permit.

## 340-71-600 SEWAGE DISPOSAL SERVICE

Beginning July 1, 1995, all those engaged in the business of installing or constructing on-site sewage disposal systems will be required to pass a written examination before they will be issued a license. The written exam will test their knowledge of the on-site sewage disposal rules.

Those engaged in septage pumping service shall submit an annual report of their pumping and disposal records.

## TABLE 1

Some changes in separation distances (setbacks) have been changed in TABLE 1.

## DIAGRAMS

The current rules include several diagrams. Those diagrams will be eliminated in the revised rules. Although the Department will still use diagrams in their handout material, they will not be located within the rules.

## DIVISION 73

There have been significant changes proposed for these rules. These changes include the sizing of septic tanks, the location and size of septic tank access man holes, risers at the access manholes, and the use of effluent filters on septic tanks. In addition, minor changes have be proposed for dosing septic tanks, distribution boxes, diversion valves, and effluent pumps and controls. These changes are not retroactive. They apply only to new systems.

## DIVISION 14

Minor changes are proposed for Division 14 to indicate that permitting rules for on-site sewage systems are found in Division 71 rather than Division 14.

## DIVISION 45

Minor changes are proposed for Division 45 to indicate that WPCF permits issued for on-site sewage disposal systems are issued pursuant to Division 71 and the fees for the on-site WPCF permits are found in Division 71.

## DIVISION 52

Minor changes are proposed for Division 52 to indicate which on-site systems are controlled by Division 71 as apposed to Division 52.

Note: Concurrent with this rule modification process, the rules regarding on-site system fees in 340-71-140 and 340-72, are also being modified. Those proposed changes have not been made part of this package. Also concurrent with this rule modification process, the fee schedule in Division 45 is being modified. Part of that modification will exclude on-site sewage systems from that fee schedule since they have been added to Division 71.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Proposed Adoption of Rule Amendments for On-Site Sewage Disposal

## Rulemaking Statements

Pursuant to ORS 183.335(7), this statement provides information about the Environmental Quality Commission's intended action to adopt a rule.

1. Legal Authority

ORS 454.625  
ORS 454.780  
ORS 468.020

2. Need for the Rule

The Department of Environmental Quality (DEQ) is charged with the responsibility of regulating the design and construction of on-site sewage disposal systems and the regulation of persons or businesses that provide sewage disposal services. The current rules were last amended in 1991 for fees only and in 1988 for technical rule changes. The current rules need to be updated due to technical advances in the field, the evolution of complex systems needing on-going maintenance, and to begin continuing education of persons involved in installation and servicing of these systems.

The proposed rules will allow for technical improvements to be implemented, without requiring future rule changes, through recommendations to the Department by a Technical Review Committee (TRC). The TRC will review and recommend implementing changes in the standards to the Department. Operating permits will be required for systems; 1) using distinctive technology, 2) with larger sewage flows, or 3) with high waste strengths. These permits will necessitate maintenance of the systems by the owners or operators. Persons involved in the business of servicing and installing on-site systems will be examined for knowledge of the rules.

In addition to the rulemaking actions discussed above, the DEQ Environmental Quality Commission may consider initiating limited pilot projects through which

certain on-site sewage disposal activities may be contracted out to private contractors.

3. Principal Documents Relied Upon in this Rulemaking  
ORS 454  
Oregon Administrative Rules Chapter 340

4. Advisory Committee Involvement

The On-Site Rules Advisory Committee, and sub committees, have met one to three times per month for 17 months. The Committee had direct involvement in developing the proposals, based on input from the public, industry, sewage disposal service businesses, consultants, counties and the Department. Two sub committees were formed for technical issues and administrative issues. On May 24, 1994 the On-Site Rules Advisory Committee recommended to the Department that the proposed rulemaking be submitted for public hearings.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Proposed Adoption of Rule Amendments for On-Site Sewage Disposal

## Fiscal and Economic Impact Statement

### Introduction

The proposed rules will increase cost for all new on-site sewage disposal systems due to technical improvements to the septic tank. The costs will vary depending on the type and location of the system. For the majority of on-site systems serving single family residences, the increases should amount to a 3 to 5 percent increase. This is expected to add \$150 - \$200 to the average new on-site standard residential sewage disposal system.

However, the new systems constructed should be more reliable and should be less likely to fail, thereby reducing the number of expensive system replacements. Other system owners that may require an operating permit, will have a renewable permit that will have an annual compliance fee. However, with greater oversight and better maintenance required by the operating permit, the systems should perform better and last longer.

### General Public

Individual home owners proposing to install a new standard on-site sewage disposal system will see a direct cost increase in the price they pay for system installation and maintenance. These costs will be associated with proposed changes to all septic tanks, where effluent filters will be required and for larger tanks at homes with more than 3 bedrooms. These costs will be for the materials needed and for servicing the filter on a regular basis. However, with the effluent filters being required, the disposal trenches will be better protected and should last longer, thereby reducing the number of premature failures and expensive replacements. Some changes, such as the relaxation of the sand characteristic requirements for sand filters and expansion of permissible types of pipe for tile dewatering could result in materials savings for some residential systems.

If a home owner needs a distinctive technology, an operating permit may be required. This permit will be renewable (generally on a 5 year basis) and have a renewal fee and annual compliance fees. These costs should be offset by longer usable life of the systems. However, the purpose of the operating permit is to assure proper maintenance and the equipment should last longer and work better, thereby preventing premature failure.

It is estimated that approximately 95 percent of on-site sewage disposal systems serve single family residences.

### **Small Business**

Businesses licensed to service and install on-site sewage disposal systems may have an indirect cost due to time taken by employees for the proposed license exam. It is estimated that this will require only four to five hours of an employees time each year. This cost should be off set by having employees more familiar with the rules and thus more efficient. It is expected that these provisions will apply to approximately 1100 licensees and to some 4000 individuals. There will also be an annual reporting requirement but the information to be reported to DEQ is information currently collected by the installers and reporting it to DEQ once each year should not require the small business to incur any additional material costs. Generally such training and reporting costs are passed through with other costs of doing business to the owners of the on-site disposal systems

Due to maintenance that is necessary for proper operation of on-site systems, businesses doing system maintenance and installation may see increased revenues as demand elevates for system maintenance. Other small businesses will see at least the same cost as an individual homeowner if they are utilizing on-site sewage disposal. Systems using a holding tank will be required to obtain a operating permit within 12 months of rule adoption.

### **Large Business**

Large Businesses will see the same economic effect as the general public and small businesses if they are using on-site sewage disposal systems. Most large businesses using on-site disposal systems are currently classified as large (over 5,000 gallons per day) systems and are thus required to obtain WPCF permits. The overall effect on large businesses is expected to be less than the effect on small businesses or the general public.

### **Local Governments**

Those few Local Governments using on-site sewage disposal systems will see the same economic effect as the general public and businesses. Like large businesses, most of these installations are large and are already subject to the WPCF permitting requirements.

Those local governments having intergovernmental agreements with the Department to implement portions of the on-site program, may see increased revenues due to the operating permits renewal fee and annual compliance fees. However these revenue increases should be off set by the cost of compliance inspections.

### **State Agencies**

Other state agencies should be affected to the same extent as the public and businesses. Those state facilities using on-site sewage disposal systems tend to be large operations such as state parks which are currently subject to WPCF permitting requirements.



## Assumptions

It is assumed that there should be little or no impact on resources within the Department, with the following possible exception; Increased staff level may be needed to manage the examination process of people licensed to install and service on-site systems. It is further assumed that the amount of resources to accomplish the goals of these rules will be provided from existing staff.

It is assumed that there will be no decrease in program delegation to local governments due to these rules. Contracts will be written to allow for delegated local governments to assume the responsibilities and revenues to provide support of the proposed rules.

## Pilot Project

The proposed rule provides for the possibility of limited pilot projects through which certain on-site sewage disposal activities may be contracted out to private contractors. All phases of site evaluation, system design review and construction inspection will be carried out by these private contractors. All fees, except the permit application fee, will be determined by negotiation between the owner of the system and the contractor.

This will result in the net transfer of revenue to the private sector - most if not all of which will go to small businesses.

In counties where DEQ currently operates the permitting/review/inspection process itself, DEQ can expect an estimated decrease in revenue of approximately \$1,000 for each installation. It is expected that concomitant reduction in DEQ staff will occur.

In counties where the local government operates the permitting/review/inspection process, the local government can expect the same approximately \$1,000 per installation decrease in revenue. It is unknown if any local government will reduce staff as a result.

If the private contractor's costs are greater than the public sector fees charged, there will be a net cost to the system owner, and vice versa. It is expected that most system owners affected will be private householders who will absorb the results of the cost shifting. However neither the magnitude nor direction of the cost change can be estimated at this time, nor can the likely number of affected systems.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for

Proposed Adoption of Rule Amendments for On-Site Sewage Disposal

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The proposed rules will allow consideration of update technology, increase flexibility of design, create provisions for operating permits, and provide for continuing education of businesses licensed to service and install on-site sewage disposal systems. In addition to the rulemaking actions listed above, the DEQ Environmental Quality Commission may consider initiating limited pilot projects through which certain on-site sewage disposal activities may be contracted out to private contractors.

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

Yes X No     

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

The on-site sewage disposal permit program regulates the placement, construction and operation of on-site sewage disposal systems.

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

Yes X No      (if no, explain):

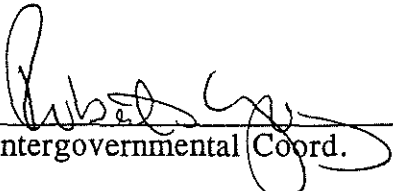
In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

The purpose of the on-site sewage disposal program is to protect the public waters of the state and the public health of the residents of Oregon. Permits to construct or to operate a on-site sewage system are considered DEQ land use actions. The local jurisdiction must review and approve a DEQ land use compatibility statement before an on-site permit application will be processed.

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

N/A

Division \_\_\_\_\_

  
Intergovernmental Coord.

Date 6/15/94

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

The following questions should be clearly answered, so that a decision regarding the stringency of a proposed rulemaking action can be supported and defended:

Note: If a federal rule is relaxed, the same questions should be asked in arriving at a determination of whether to continue the existing more stringent state rule.

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

The federal underground injection control (UIC) rules require UIC permit for injection wells. EPA has determined that large on-site systems can be considered as injection wells. Currently, the WPCF permit we issue for large on-site systems meets the requirements for the UIC permit. The rule modification will not change that.

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

The federal UIC rules for Class V wells, which includes large on-site systems, are permitting rules only. They do not establish performance requirements.

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

Normally, public notice is not required for WPCF permits. It is discretionary. However, those on-site systems which are large enough to be considered a UIC facility do require public notice under federal rules. The rule modifications make that requirement clear.

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

The rules changes do clarify several issues and make the rules more certain. The new design criteria in the rules apply only to new facilities and will require no upgrading of existing facilities.

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

The proposed rules bring those rules which affect on-site systems from Divisions 14, 15, 45, and 52 into Division 71. This will make it easier for the public to know and understand the requirements.

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

The proposed rules will make it easier to get new technologies approved and thereby increasing the chances for approving sites for on-site systems which cannot be served by existing technology.

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

All those facilities which do need routine maintenance in order to operate properly are being required to have a renewable WPCF permit which will establish operation and maintenance requirements.

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

The added costs associated with additional operation and maintenance requirements should improve the longevity of the facility and make it less likely that large replacement costs would be prematurely imposed.

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

There are no current federal standards for operation and maintenance. They leave that up to the states in their permitting process.

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

Demonstrated technology is available to meet all of the requirements of the proposed rules.

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

Properly designed on-site sewage disposal systems which can be easily maintained, are a pollution prevention vehicle. They prevent both surface waters and ground waters from being polluted.

State of Oregon  
Department of Environmental Quality

Memorandum

Date: July 29, 1994

To: Environmental Quality Commission

From: Charles K. Ashbaker

Subject: Presiding Officer's Report for Rulemaking Hearing  
Hearing Date and Time: July 22 1994, beginning at 3 p.m.  
Hearing Location: 2020 S.W. Fourth Ave.  
Portland, Oregon

Title of Proposal: On-Site Sewage Disposal Rules Modification

The rulemaking hearing on the above titled proposal was convened at 3:05 p.m. People were asked to sign witness registration forms if they wished to present testimony. People were also advised that the hearing was being recorded and of the procedures to be followed.

people were in attendance, three (3) people signed up to give testimony.

Prior to receiving testimony, Dennis Illingworth briefly explained the specific rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

People were then called to testify in the order of receipt of witness registration forms and presented testimony as noted below.

1. Alex Mauck, an on-site system installer, testified he would like the homeowner and or manufacturer of a system to be present when the periodic inspection of installed system take place, (71-260). He requested that the sizing requirements for the proposed Graveless Absorption Facility, be clarified. He believes that the system as proposed is not equal in absorptive area as a drainfield, (71-290). He thought that there should be uniform sizing criteria adopted under 71-355.
2. Richard Polson, Director of Environmental Services for Clackamas County, testified that the County had various concerns about the proposed rules both substantive and housekeeping. The county will provide that testimony in writing.

ATTACHMENT C (Portland)

Memo To: Environmental Quality Commission  
July 29, 1994  
Presiding Officer's Report on  
July 22, 1994, Rulemaking Hearing  
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The following people handed in written comments but did not present oral testimony:

NONE

There was no further testimony and the hearing was closed at 3:45 p.m.

Attachments:

Written Testimony Submitted for the Record.

NONE

ATTACHMENT C, Portland



State of Oregon  
Department of Environmental Quality

Memorandum

Date: July 29, 1994

To: Environmental Quality Commission

From: Charles K. Ashbaker

Subject: Presiding Officer's Report for Rulemaking Hearing  
Hearing Date and Time: July 25, 1994, beginning at 3:00 p.m.  
Hearing Location: Blue Mountain Community College  
Pendleton, Oregon

Title of Proposal: On-Site Sewage Disposal Rules Modification

The rulemaking hearing on the above titled proposal was convened at 3:15 p.m. People

No people were in attendance and no people signed up to give testimony.

There was no testimony and the hearing was closed at 3:20 p.m.

Attachments:

No written testimony was submitted for the record.

ATTACHMENT C (Pendleton)

State of Oregon  
Department of Environmental Quality

Memorandum

Date: July 29, 1994

To: Environmental Quality Commission

From: Charles K. Ashbaker

Subject: Presiding Officer's Report for Rulemaking Hearing  
Hearing Date and Time: July 26, 1994, beginning at 3:00 p.m.  
Hearing Location: Cascade Natural Gas Building,  
Bend Oregon

Title of Proposal: On-Site Sewage Disposal Rules Modification

The rulemaking hearing on the above titled proposal was convened at 3:05 p.m. People were asked to sign witness registration forms if they wished to present testimony. People were also advised that the hearing was being recorded and of the procedures to be followed.

Eight (8) people were in attendance, two (2) people signed up to give testimony.

Prior to receiving testimony, Dennis Illingworth briefly explained the specific rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

People were then called to testify in the order of receipt of witness registration forms and presented testimony as noted below.

1. Roger Everett, Director of the Environmental Health Division, Deschutes County, was in favor of the proposed rules. He was opposed to the privatization of the On-Site Sewage Disposal Program. He believes this is an important public health program, and therefore should be in government. He thought that citizens want an unbiased opinion. He also spoke in favor of the examination requirement for people who work on on-site systems. He suggests that the Department look at various ways of implementation, ie; using Community Colleges
2. Fred Jenke, an on-site installer, spoke in favor of the proposed examination of people who work on on-site systems. His opinion as to implementation, is to provide training similar to what the state provides for manufactured home

ATTACHMENT C, Bend

Memo To: Environmental Quality Commission  
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July 26, 1994, Rulemaking Hearing  
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installers. This would include having a short day or two class for installers,  
followed by the examination.

The following people handed in written comments but did not present oral testimony:

NONE

There was no further testimony and the hearing was closed at 3:45 p.m.

Attachments:

NONE

ATTACHMENT C, Bend

State of Oregon  
Department of Environmental Quality

Memorandum

Date: July 29, 1994

**To:** Environmental Quality Commission  
**From:** Charles K. Ashbaker  
**Subject:** Presiding Officer's Report for Rulemaking Hearing  
Hearing Date and Time: July 27, 1994, beginning at 5:00 pm  
Hearing Location: Jackson County Courthouse Auditorium,  
Medford

Title of Proposal: On-Site Sewage Disposal Rule Modification

The rulemaking hearing on the above titled proposal was convened at 5:05 pm. People were asked to sign witness registration forms if they wished to present testimony. People were also advised that the hearing was being recorded and of the procedures to be followed.

11 people were in attendance, 6 people signed up to give testimony.

Prior to receiving testimony, the hearing officer, Kent Ashbaker, briefly explained the specific rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

People were then called to testify in the order of receipt of witness registration forms and presented testimony as noted below.

Glenn Hawkins, an installer, supported the larger septic tanks and manhole access. He suggested the distance between curtain drains and sand filters be reduced.

Ken Cote, Jackson County, questioned the need for larger tanks and effluent filters. He did not think the additional cost to the home owner was worth the added benefit. He felt that the filter would just be removed by the home owner the first time it created a problem. He also did not agree with the use of a drop box or distribution box in every case. He also suggested that the approved material below a bottomless sand filter be clarified. He thought the rules were inconsistent with other Department guidance, particularly with the approval of construction in weakly cemented sands. He indicated that he would submit extensive comments in writing.

ATTACHMENT C (Medford)

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July 27, 1994 Rulemaking Hearing  
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Sam Michel, an installer, was opposed to rule changes, without more involvement with the installers. He indicated that he did not think the Department had done its homework.

Brad Prior, Supervising Sanitarian for Jackson County, suggested that the Technical Review Committee be appointed by the Commission and not the Director. He also questioned the authority the rules seem to give to the Director or Director's designee. He questioned the legality of that. He indicated that all aerobic systems need a WPCF permit and not just those over 600 gallons per day. He questioned the need for increasing the tank size to 1500 gallons per day. He suggested the Department do a cost/benefit study on that issue. He said that conducting a leak test on an installed septic tank was not practical. Often there is not water at the site when the tank is installed. Any testing for water tightness should be conducted by the manufacturer at the site of manufacture. He was opposed to reducing the effluent pipe size to 2 inches because of the potential for the home owner to remove the effluent filter and the potential for clogging of a 2 inch line. Perhaps this change could be made later after some history of effluent filter use. He was opposed to any pilot projects for turning portions of the on-site program over to private contractors. He felt that such a program would be open to extreme abuse. Brad also had other editorial comments.

Dick Florey, Jackson County Sanitarian, can't see need for larger tanks. Did not think that risers were necessary at a dry site where the tank was close to the ground surface. He questioned the use of a leak test at the site. If used, should be only at high groundwater sites. Would prefer to see effluent filters be optional. He had several comments regarding the sand filter rules and requested clarification on some of the changes. He thought the graveless option placed at only 10 inches would freeze. He did not see the necessity of reducing the sand filter cover to 6 inches. He also was opposed to excluding gray water from sand filters.

Charles Henke, Jackson County, very opposed to privatization of the on-site program. He felt that it would be a conflict of interest for consultants to do the work.

The following people handed in written comments but did not present oral testimony:

ATTACHMENT C (Medford)

Memo To: Environmental Quality Commission  
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July 27, 1994 Rulemaking Hearing  
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None

There was no further testimony and the hearing was closed at 7:15 pm.

Attachments:

Written Testimony Submitted for the Record.  
NONE

ATTACHMENT C (Medford)

State of Oregon  
Department of Environmental Quality

Memorandum

Date: July 29, 1994

To: Environmental Quality Commission

From: Charles K. Ashbaker

Subject: Presiding Officer's Report for Rulemaking Hearing  
Hearing Date and Time: July 28, 1994, beginning at 3:00 pm  
Hearing Location: Springfield City Hall, Springfield

Title of Proposal: On-Site Sewage Disposal Rule Modification

The rulemaking hearing on the above titled proposal was convened at 3:05 pm. People were asked to sign witness registration forms if they wished to present testimony. People were also advised that the hearing was being recorded and of the procedures to be followed.

10 people were in attendance, 3 people signed up to give testimony.

Prior to receiving testimony, Dan Bush briefly explained the specific rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

People were then called to testify in the order of receipt of witness registration forms and presented testimony as noted below.

1. Bill Bowne questioned the need for prescriptive design criteria for effluent filter. Performance criteria would be sufficient.
2. Terry Bounds said that if prescriptive design criteria was omitted for effluent filters, performance documentation should be required.
3. Paul Kennedy, DEQ, Roseburg, said that he would be submitting comments regarding the addition of septage lime stabilization rules to the Division 71, on-site rules.

The following people handed in written comments but did not present oral testimony:

ATTACHMENT C (Springfield)

Memo To: Environmental Quality Commission  
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Presiding Officer's Report on  
July 28, 1994 Rulemaking Hearing  
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none

There was no further testimony and the hearing was closed at 4:45 pm.

Attachments:

Written Testimony Submitted for the Record.

NONE

ATTACHMENT C (Springfield)



State of Oregon  
Department of Environmental Quality

Memorandum

Date: August 8, 1994

**To:** Environmental Quality Commission  
**From:** Charles K. Ashbaker  
**Subject:** List of Those Submitting Written Comments Regarding the Modification of On-site Sewage Disposal Rules

1. Ron Meyer & Associates, Inc. - Disagrees with increase in diameter of risers to 24 inches. Disagrees with dimensions of distribution box. Leaching chambers should be included in the rules as an alternative to gravel.
2. John O'Neill - Disagrees with the requirement to have small holding tanks on WPCF permit.
3. James L. Rust, dba Hoedown Co. - General philosophical comments on rule changes and recent increase in fees. Not convinced that the new fee increases and new proposed requirements in the rule package are necessary. Will be a financial burden on home owner.
4. Linn County Board of Commissioners - Support rule changes. Against any privatization of the on-site program.
5. Shields Septic Tank Service - Adding risers to the septic tank will make them more difficult to pump. Testing of installers a good idea.
6. Clackamas County Department of Transportation & Development - Submitted very comprehensive comments on housekeeping and rule clarification. Do not recommend septic tank size to be increased to 1500 gallons for septic tanks serving more than 3 bedrooms. Should not bring ends of pressure distribution laterals to finished grade. Do not believe any sites should be approved without a site review. Questions the implementability of installer testing program. Questions the need for effluent filters in a septic tank. Questions the reduction in effluent sewer diameter from 3 inches to 2 inches. Are against privatization of the on-site program. Supports the appointment of a Technical Review Committee.
7. Ken Cote, Jackson County Department of Planning and Development - Disagrees with the privatization of the on-site program. Several comments were made on

ATTACHMENT D

- housekeeping language for clarification. Technical Review Committee should be appointed by Commission, not Director. Likes the idea of Department having the flexibility to approve new materials and designs; however, he questions the legality of that. Pleased to see many of the proposed changes. Does not agree with larger septic tanks as written in proposed rules. Water testing of septic tanks on site not practical because of the lack of water at the time the systems are installed. Does not agree with the universal requirement for effluent filter without more testing.
8. Pre-Mix - Septic tanks should not be increased in size. Septic tank manufacturer should be included in the Technical Review Committee. Agree with testing of licensed installers. Disagree with the requirement of a riser for all tanks. The water tightness testing of all septic tanks on site is not practical because of the lack of water. Cost to bring water in would be from \$75 to \$100. The whole rule process should be put on hold for 90 days to give the manufacturers more time to study the implications of the rule changes.
  9. Angelo's Backhoe Service - Testing should be of licensed installers only, not their employees. Suggest classes instead of testing. Experienced installers should be exempt from testing. Larger septic tanks will be much higher cost. Effluent filters not a good idea. They will likely be removed by homeowner. Drop boxes can be a detriment to the system.
  10. Dick Florey, Jackson County - Privatization of most portions of the on-site program not a good idea. May have some merit in monitoring and regulating things such as holding tanks and sand filter tank pumpings.
  11. Charles S. Henke, Jackson County Department of Transportation & Development - Submitted comprehensive comments for housekeeping and clarification. Testing of installers long overdue, but would be better to require course work at a community college. Do not agree with effluent filters for single family residences.
  12. Thorsby & Bowne - Object to the prescriptive design criteria for the effluent filters as written. It would exclude some of the filters on the market. Should be a performance standard, not design standard.
  13. Tom Sloan, Deschutes County Community Development Department - Submitted comments for clarification and housekeeping of rules. If graveless absorption option allows for smaller disposal area, a full sized repair area should be available.

14. Davison's Readymix - Since most on-site failures are due to lack of routine septic tank pumping, suggests mandatory pumping every 4 years. Questions the need for the larger tanks. Questions the need for water tightness test of tanks. Questions the use of effluent filters.
15. Morgan General Contracting - Suggest decision of rules be postponed until manufactures and installers can better evaluate the rule and give more input on the effect of them. Larger tanks, water tightness test, effluent filters, and risers will probably add an additional \$1000 to each installation with no demonstrated need. Existing systems are working fine.
16. Diana Godwin, Clearwater Ecological Systems Pacific, Inc. - Suggested language for creation of Technical Review Committee. Also suggested language to alleviate some of the legal questions regarding the Department approving design and construction standards outside of those defined in the rules.
17. Terry Bounds, ORENCO SYSTEMS, INC. - Submitted several changes for housekeeping and clarification.
18. Michael G. Ebeling, City of Portland, Bureau of Buildings - Fees need to be adjusted to reflect new on-site fees just adopted. Asked, if septic tanks require a water tightness test, who will perform the inspection. Suggested that if the contract agent is to do it, another fee would be required. Does not believe that effluent filters have been demonstrated to be effective. Expressed concern about their maintenance. Concerned about the graveless absorption systems. Expressed opposition to privatization of on-site program. Does not believe that private consultants are concerned about public health.
19. Oregon Coalition of Local Health Officials - Expressed concern about privatization of on-site program. If a pilot project is conducted, it should not relieve the local government of the responsibility to apply regulatory standards, develop conditions of approval, provide citizens with full access to the regulatory decision making process, address all legitimate issues and concerns, and balance interests.
20. Michael's Precast Concrete - Object to the larger septic tank for four bedroom home. Object to the requirement to have two risers for tanks more that 4 feet deep. The tank which they produce is only 6 feet in diameter and would not support two large risers. Suggested an inspection port as an alternative to the second riser.

21. William M. Ross, Washington County Department of Health & Human Services - Suggested several housekeeping changes. Suggested a two compartment tank instead of the effluent filter. Filter has high maintenance requirement. Technical Review Committee should have even split between the regulated and the regulators. Support the larger septic tank for four bedroom homes, in fact recommend it also be required for three bedroom homes. A minimum of two drain lines should be required. Silt trap should not be reduced to 12 inches in diameter. Too hard to clean. Recommend minimum of 24 inches with 30 inches preferred. Suggest that the \$2,500 surety bond be increased. It is not enough to even cover a standard system. Do not understand the WPCF process and have some concerns about implementing it at this time. Are against privatization of on-site regulation. A conflict of interest would develop. Lots are harder to evaluate now because the easy ones are built on. The risk is too great.
22. Diane E. Naglee, Heath Department of Jefferson County - Generally in support of the rule modifications, but suggested several housekeeping changes for clarification. Does not support the requirement for a holding tank to be on WPCF permit. Rule for testing of installers is too vague. Testing should not be required of employees. Jefferson County does not support the proposed privatization of site evaluations, system design review, or construction inspections.
23. Crane Pumps & Systems - The requirement that pumps and controls be removable without requiring power disconnect is a safety hazard and should be eliminated.
24. Association of Oregon Counties - Appreciate the efforts of those who have been involved in the rule modification process. Believe that it is the role of local government to be applying regulatory standards, developing conditions of approval, providing citizens with full access to the regulatory decision making process, addressing all legitimate issues and concerns, and balancing interests. the responsibility of local government includes ensuring the public health and safety of its citizenry. Any pilot project for privatization should be consistent with these responsibilities and should not reduce the role of local government.
25. Taylor Construction - Since the changes have an economic impact on the public, those who are present or past applicants for sewage permits should have been notified so they could have been heard. I need more time to study the rules.
26. Infiltrator Systems, Inc. - Commend the Department for updating the rules. Strongly support the use of a Technical Review Committee. Discussed their plastic chamber system and suggest the Department require proper engineering for graveless systems,

particularly in relation to footing design, otherwise failure may occur.

27. Vic Affolter, Tillamook County Department of Community Development - Discussed the pros and cons of the pilot project for privatization on the on-site sewage disposal program. He expressed several concerns with such a proposal.
28. Robin Davis, Jackson County Planning Department - Expressed opposition to the larger septic tanks for dwellings larger than 3 bedrooms, effluent filters, reduction in drainfield pipe to 3 inches, mandatory drop box, and use of bottomless sand filters in fractured rock or weakly cemented sands. Indicated that criteria should be established for identifying the location of temporary water table associated with seepage trenches in vertisols. Voices opposition to any privatization of on-site program.
29. Gary Artman, Curry County Department of Public Services - Supports the appointment of a standing Technical Review Committee. Against privatization of the on-site sewage disposal program.
30. Hollis Gunter, Yamhill County Department of Planning and Development - Substantially in agreement with most of the rule changes except water testing of each septic tank after installation and effluent filters. Also expressed concerns about the proposed pilot project for on-site program privatization.
31. Ron Smith, Benton County Environmental Health Division - Expressed concerns about implementation of the WPCF program. Questioned the privatization of the on-site sewage disposal program. Suggested that DEQ provide the cards for the installers who have passed the test. The agent could distribute them. Had other comments concerning interpretation of the rules.
32. Alex Mauck, Northwest EEE ZZZ Lay Drain Co. - Suggested some wording for inspecting and evaluating alternative systems. Provided comments of the Graveless Absorption Facility Option for sand filters. Suggested that the Department adopt drainfield sizing criteria from an equation developed by Kenneth Pankow.

State of Oregon  
Department of Environmental Quality

Memorandum

Date: August 9, 1994

**To:** Environmental Quality Commission  
**From:** Charles K. Ashbaker  
**Subject:** On-site Sewage Disposal Rule Modification - Department's Evaluation of Public Comments

The Department has received hundreds of rule housekeeping and clarifying comments from Department staff, Department Contract Agents, and others. All of these comments will be given due consideration. However, all of these comments will not be included in this evaluation report. Only those comments considered significant or those comments which would change the intent of the rule are considered in this report. In addition, many of the comments received ask questions or gave suggestions for improving the on-site program. While all of these comments will be considered and clarifications in the rules made where appropriate, they are too numerous to include within this evaluation

1. One person requested a provision to the rules to require the Department or Agent to notify the permittee prior to an inspection so that the home owner could be present.

**Response: Although, normally, the permittee is notified prior to an inspection, there are times when a surprise inspection is prudent. No change is proposed in the rules.**

2. Several persons commented on the proposal to require those licensed to perform on-site sewage disposal work pass a written exam prior to getting their license. Most were in support of the proposal but suggested that attendance at a training course provided by the Department or community college be an alternative to the examination.

**Response: The rules have been changed to allow attendance at a Department authorized training course in lieu of the examination.**

3. Many people commented on the increased size of the septic tank for larger than 3 bedroom homes. Some were in favor, but most were opposed.

**Response: This requirement has been re-evaluated and removed from the rules. The rules now allow a 1,000 gallon tank up to and including 4 bedrooms. For homes larger than 4 bedrooms, a 1,500 gallon tank is required.**

4. Many people commented on the requirement for septic tank effluent filters. Some were in favor of the filters, but most were opposed to them because of cost and maintenance. One was in favor of the filters but requested that the prescriptive design criteria be eliminated in order to allow the industry to develop filters which might vary in design but still meet the

ATTACHMENT E

necessary performance standards.

**Response:** After further evaluating the cost and maintenance liability to the owner, the Department has decided to require effluent filters for commercial facilities only. Effluent filters may be installed by single family residences, but will not be required. In addition, the prescriptive design criteria of 4 square feet of filter area has been removed.

5. There were several comments regarding the requirement to extend the septic tank manholes to the surface of the ground with a riser. Some were in favor of the risers because to the ease at getting access to the tank for pumping and filter maintenance. Others were opposed to the risers because of a potential hazard to children if left unlocked and the visual unsightliness of an exposed riser. One indicated that it would be harder to remove solids if a riser was installed. One company which builds plastic septic tanks requested the 24 inches in diameter size limitation of the riser be retained at 18 inches in order to accommodate the manufactures of plastic tanks who currently have 20 inches in diameter risers.

**Response:** The rules have been changed to require a minimum diameter of the riser to be 20 inches, in order to accommodate certain septic tank designs.

6. One person suggested that all aerobic treatment systems be covered by a WPCF permit, instead of a construction/installation permit.

**Response:** The draft rules require all aerobic systems, except for those serving a single family residence to be covered by WPCF permit. Since there are few aerobic systems for single family residences and the environmental risk of failure if not properly maintained would be minimal, the requested change was not made. However, the rule was changed to clarify that all commercial systems, regardless of size, require a WPCF permit.

7. One person was opposed to the reducing the septic tank effluent pipe size from 3 inches to 2 inches when an effluent filter is used.

**Response:** With the installation of effluent filters, the Department felt justified in reducing the cost of the installation by reducing the size of the effluent pipe. No change is proposed. This is a significant cost savings if the disposal area is a great distance from the septic tank. It will also provide an incentive to install an effluent filter which has now been made optional for single family residences.

8. Several people commented on the requirement to have septic tanks tested for water tightness after installation. Some spoke in favor of the requirement and some spoke in opposition to it. Those who spoke in opposition to it stated that often, at the time the septic tank is installed, there is no water at the site. That would require water to be hauled in to

conduct the test.

**Response:** Because the integrity of the septic tank is essential for the successful operation of the system, the Department has retained this requirement in the rules. However, it is recognized that there are site conditions which might preclude this requirement. In these cases, the Agent may waive the test.

9. One person was opposed to reducing the disposal field pipe size to 3 inches.

**Response:** Since the need for a 4 inch pipe in the disposal trench has not been demonstrated, the Department feels that some cost savings could be provided the homeowner if 3 inch pipe is allowed.

10. Some expressed concerns that allowing bottomless sand filters in fractured rock or weakly cemented sands would cause failures.

**Response:** That portion of the rules have been clarified to indicate that permeability of the area must be demonstrated. Weakly cemented sands have been removed.

11. One person voiced opposition to the 8 inch minimum diameter of a drop box.

**Response:** This is an existing rule. No change has been proposed.

12. Two people expressed opposition to requiring a WPCF permit for holding tanks. Others have expressed their support of this requirement indicating that it is long overdue.

**Response:** Because of the existing problems associated with holding tanks and the lack of maintenance, the Department proposes to retain this WPCF Permit requirement for holding tanks. However, those holding tanks receiving flows of less than 200 gallons per day would be exempt from the WPCF Permit requirement.

13. Several people gave their support to the flexibility written in the rules to allow the Director or designee to establish material standards for new materials where they are not already established within the rules. However, they question the legality of that allowance.

**Response:** This issue has been explored with the Justice Department. Some changes in wording have been made pursuant to their recommendations.

14. One person suggested that ETA systems (evapotranspiration) be eliminated from the rules because of high failure rates in their county.

**Response:** Rather than eliminating them altogether, the rules limit them to single family residences.

15. Some questioned the use of graveless absorption systems as established in the rules.

**Response:** The graveless option has been retained in the rules; however, the proposal



for trenches on three (3) foot centers has been changed to ten (10) foot centers.

16. Some have questioned the change in sand filter design.

**Response: The Technical Subcommittee of the Technical Advisory Committee spent considerable time and effort in updating the sand filter rules to correspond with the most up-to-date practice.**

17. One person indicated that requiring the septic tank manufacturer to supply the dosing siphon, screen, etc., was too restrictive and interferes with private enterprise.

**Response: The Department agrees. That requirement has been removed.**

18. Some expressed that the rules should be phased in over a period of time and not become effective immediately.

**Response: The Department has added a phase-in schedule to the rules. Portions will become effective immediately, some by April 1, 1995, and some by July 1, 1995.**

19. One attorney who has been closely involved with the rule modification process suggested language to better define the duties of the Technical Review Committee.

**Response: Much of the language proposed has been incorporated.**

20. Some indicated that the fee schedule in the draft rules do not reflect the on-site fee schedule recently adopted by the Commission.

**Response: The fee schedule in the rules has been changed to correspond with the new fee schedule adopted by the Commission.**

21. One person indicated that requiring two manhole risers for tanks which are buried at least 4 feet deep would not work for the tanks which they manufacture, since they are cylindrical in shape with a diameter of only 6 feet 6 inches.

**Response: The rule has been changed to provide that flexibility.**

22. Some noticed that the diagrams had been omitted from the rules.

**Response: The Department believes that diagrams are not appropriate in rules and so they have been removed. A narrative description has been added where necessary. Diagrams will be used by the Department in handout material and training material, but will not be used in the rules.**

23. Some indicated that rodent proofing ground water interceptors were well worth the trouble and cost and wondered why that requirement had been removed.

**Response: The committee determined that rodent proofing was unnecessary. However,**

it may be required at the Agent's discretion.

24. One person indicated that by reducing the silt trap to 12 inches would make it difficult to clean and wondered why the size had been reduced.

**Response: The committee determined that silt traps are seldom cleaned and a cost savings could be realized by reducing the size. The rule remains as drafted.**

25. One person indicated that the \$2,500 bond required of licensees was too low since it would not even be enough to replace a standard system.

**Response: Although the Department agrees, this is a statutory limitation and cannot be increased by rule.**

26. Some commented on the change in the rules to eliminate the 125 feet maximum length of a disposal trench. One indicated the maximum should be retained. One indicated that at least two lines should be required.

**Response: This matter was thoroughly discussed by the Technical Subcommittee of Technical Advisory Committee. It was determined that those requirements were unnecessary and the rule as modified provided some needed flexibility.**

27. One pump manufacturer indicated that the requirement that pump wiring must be designed such that pump and controls can be removed without disconnection could provide a hazard from electric shock and should be changed.

**Response: That change has been made in the rules.**

28. Some have commented that the entire rule package has a significant economic impact with the larger septic tanks, risers, and effluent filters.

**Response: The requirements for larger tanks and effluent filters for single family residences have been removed.**

30. One person suggested that the Technical Review Committee be given more authority and that it's members be appointed by the Commission rather than Director.

**Response: The Department does not believe this to be appropriate. No change was made to the proposed rule.**

31. Some expressed concern about the ability to change over all of the facilities requiring WPCF Permit by the new rules within a 12 month period as proposed in the rules.

**Response: the rule has been changed to require the WPCF operating permit at time of repair, alteration or expansion. Only the owners of existing holding tanks will be required to obtain a WPCF permit within one year.**

32. There was concern raised by the Department of Justice concerning the use of the term "guidance" as it pertained to the rules as they applied to WPCF permits.

**Response: The term "guidance" has been removed. The rules still allow some variations to established design criteria through the process of plan review.**

33. Some did not want the authorization notice fee to apply toward an alteration of repair permit if, during the authorization notice investigation, it was determined that an alteration or repair permit was necessary.

**Response: In most cases the Department or Agent should be able to determine which permit is required at the time of the application. No change to the language is proposed.**

34. Some asked the Department to remove the requirement for a drop box or other monitoring unit on all gravity systems.

**Response: Some language providing the Agent flexibility has been added.**

35. The question was raised as to the use of a Homeowners' Association in the list of those entities who can operate and maintain community systems pursuant to 71-500.

**Response: After conferring with the Department of Justice, Homeowners' Association was added, since recent statutes grant them equal authority to the Condominium Unit Owners.**

36. A private company proposed a rule to utilize a disposal trench sizing technique different from what is currently in use.

**Response: The sizing proposal, dated July 25, 1994, is quite long and detailed. There was no opportunity for review by the Technical Advisory Committee or by Department staff. The proposal was tabled for review by the Department and/or the Technical Review Committee at a later date.**

37. A private company proposed a rule for a procedure whereby the Department may grant a permit to the applicant to install an unspecified number of unapproved alternative systems during a two year period.

**Response: The Department does not agree. The proposed language is not included in the rule.**

**There have been numerous other minor changes made to the rules in response to comments from staff and the public. They have been made to clarify the rules and make them easier to read. A response to those comments has not been included in this report.**

Memo To: Environmental Quality Commission  
August 9, 1994  
Page 7

**All comments received were regarding Divisions 71 or 73. There were no comments on the proposed changes in Divisions 14, 45, and 52.**

Date: September 14, 1994

**To:** Environmental Quality Commission  
**From:** Charles K. Ashbaker  
**Subject:** Changes to the Original Rule Package in Response to Public Comments

With the exception of hundreds of housekeeping changes, the following substantive changes have been made to the original rule package in response to public comments and staff input:

<u>Rule</u>	<u>Page</u>	<u>Change</u>
71-100(4)		Added "Aerobic System" definition.
71-100(8)		Added "Approved Material" definition.
71-100(9)		Added "Approved Criteria" definition.
71-100(10)		Added "ASTM" definition.
71-100(32)		Expanded the curtain drain definition.
71-100(55)		Added "Equal Distribution Method" definition.
71-100(65)		Added "General Permit" definition.
71-100(92)		Added "Operating Permit" definition.
71-100(104)		Added "Pretreatment" definition.
71-100(108)		Added "safety margin" concept for projected daily sewage flow.
71-100(112)		Added "Recirculating Gravel Filter System" definition.
71-100(154)		Added "Treatment" definition.
71-100(157)		Added "Vertisols" definition.
71-100		Other definitions that were placed in 71-100 were those already in the existing Division 71 but in other sections.
71-115(1)		Expanded on the purpose of the Technical Review Committee.
71-115(5)		Added staffing provisions for Technical Review Committee.
71-115(6)		Added effective date for this section.
71-120(4)		Added "pilot program utilizing private contractors" section.
71-130(1)		Added direction for Agent when exceeding minimum standards.
71-130(2)		Added wording that allows Director's approval of new technologies, material, and designs after review of Technical Review Committee and Department. This concept was throughout proposed rules that went to public hearing. This addition is an effort to condense the concept in one rule section. Other sections that contained similar language have had the language eliminated.

- 71-130(15)(d) Changed language to require operating permits for sand filter systems serving commercial facilities.
- 71-130(15)(e) Requires operating permit for aerobic systems serving commercial facilities.
- 71-130(15)(g) Added section requiring an operating permit for all other non-discharge systems not specifically described in rule.
- 71-130(16) Eliminated proposed requirement for all recirculating gravel filters, aerobic systems, and sand filters to be placed on WPCF permit within 12 months of effective date of rules.
- 71-130(20)(b) Revised proposed language to clarify when the Department can vary from design criteria for WPCF systems.
- 71-130(24) Added language for determining groundwater levels.
- 71-162(9) Revised permit term from 10 years to 5 years.
- 71-162(10) (new) Added qualifications for persons constructing WPCF absorption facilities.
- 71-162(11) (new) Added requirement of certification of completed WPCF system prior to use.
- 71-162(17)(a) Revised exclusions from 165 (all) to 165(1).
- 71-162(17)(c) Deleted the exclusion from 73-050(6).
- 71-205(10) Revised 30 days to 45 days for requesting denial review.
- 71-210(2)(a)(B) Added flexibility for Agent to allow a reasonable installation even if setbacks from the septic tank cannot be met.
- 71-220(3) Reduced septic tank size to present rule requirements for single family dwellings up to 4 bedrooms. 1,500 gallons or more is required for homes larger than 4 bedrooms. Tanks for commercial facilities are sized at twice the flow, with a minimum size of 1,000 gallons.
- 71-220((3)(b)(C) Reduced the diameter of the riser to 20 inches from 24 inches. The soil cover depth requiring a riser of 30 inch diameter has been reduced to 36 inches from 48 inches, and only one riser (30 inch diameter) is required.
- 71-220(3)(b)(H) Deleted the requirement for an effluent filter on a septic tank for a single family residence.
- 71-220(4)(a)(C) Clarified the method for measuring the size of an equal distribution absorption facility.
- 71-220(5)(c) Added flexibility for Agent discretion to delete the requirement of a drop box or distribution box.

- 71-265(2)(f) Changed the depth for the soil cap required over equal distribution system from 16 inches to 10 inches.
- 71-265(3) Added Agent flexibility for waiving inspections.
- 71-270(2)(e)through(j) Added construction specifications to supplant diagrams that were formerly used.
- 71-275(1) Added flexibility for selection of system.
- 71-275(3) Deleted the exception for split waste systems on lots of record.
- 71-275(4)(b)(B) Added a requirement for tracer wire in trenches.
- 71-275(4)(b)(D) Added flexibility to construction standard for ends of pressure laterals.
- 71-275(4)(b)(I) Added flexibility for Agent due to climate conditions.
- 71-275(4)(b)(J) Added requirement for anti-siphon device when indicated.
- 71-290(1) Changed the criteria for sand filter operating permit. Sand filters, other than those serving single family dwellings with no more than residential waste strength wastewater, shall be authorized under a WPCF permit.
- 71-290(3)(a)(C) Deleted the 12 inch temporary water table rule for graveless method.
- 71-290(3)(d) Added criteria for approval in diggable soils.
- 71-290(5) Deleted approvals in weakly cemented sands.
- 71-290(7) Changed trenches to 10 foot centers for the "Graveless absorption facility method."
- 71-295(3)(e) Added Agent flexibility, and sieve analysis specifications.
- 71-295(3)(g)(A) Increased lateral spacing to 30 inches; required one orifice for each 6 square feet of sand surface area.
- 71-295(3)(i) Added Agent flexibility on textural class of sand filter cover, and removed the option of allowing a deeper cover over the sand filter.
- 71-295(4)(c) Renumbered to 71-295(5).
- 71-295(5)(d) Clarified language for placement of underdrain media.
- 71-300(2) As per 71-290(1), changed the criteria for requiring an operating permit for sand filters.
- 71-305(1) Changed as per 71-300(2) and 71-290(1).
- 71-305(1)(b) Adds requirements for a sand filter system owner to inspect and maintain the system.
- 71-305(3) Relocated this rule from Division 73.

- 71-325(1)(a) Deleted seasonal dwelling as a specific use to be connected to a gray water waste system.
- 71-325(1)(c) Added a rule allowing up to 4 sumps on the same property installed at the same time to be under one permit.
- 71-330(1) Deleted the requirement for a disposal company to comply with Table 8 setbacks when placing a portable toilet.
- 71-330(2) Deleted seasonal dwellings as a specific use for non-water carried waste disposal facilities.
- 71-345(1)(a) Changed to limit aerobic system construction permits to single family dwellings.
- 71-345(3) Deleted the proposed wording for review by the Technical Review Committee (TRC). This concept is covered in 71-130.
- 71-400(6)(a)(B) Changed maximum slope back to thirty (30) percent.
- 71-500(5) Added Homeowners Associations to the entities to be vested with operation and maintenance of community systems.
- 71-600(1), (2)(e), (3)(e) Added the option to attend a Department-approved training session in order to be licensed.
- 71-600(12)(f)&(g) Added requirements for septic management plans and for compliance with those plans.

### Division 73

Note: Division 73 was revised such that 73-025 (formerly septic tanks only) now contains criteria for all tanks: septic, dosing, and dosing septic. Any redundant rules found in the sections dealing with the specific tanks were deleted. The section for septic tanks was renumbered to 73-026.

- 73-025(1)(b) Added the requirement for watertight risers.
- 73-025(3) Expanded and clarified watertight determination.
- 73-025(4) (new) Added a requirement for the tank manufacturer to supply bond/seal and instructions if others are installing.
- 73-025(5) Structural specifications were expanded. The burial depth to the top of the tank was returned to 3 feet.
- 73-025(6)(c) Expanded the inlet fitting language.



- 73-025(6)(d) Expanded the outlet fitting language.  
73-025(6)(g) (new) Added a requirement for a means to monitor sludge accumulation.
- 73-025(8) Added a requirement for access ports and risers.  
73-025(9)(c) Added to the certification language for cast-in-place tanks.  
73-025(9)(d)&(e) (new) Added regulations for fiberglass tanks and for tanks made of other noncorrosive materials.
- 73-025(10) Added manufacture date to be stamped on tanks.  
73-025(13) Added to requirements pertaining to tank instruction manuals.
- 73-026(2) (new rule section) Added a requirement for an effluent filter on the outlet of septic tanks proposed to serve commercial facilities. Proposal that went to hearing required effluent filter on all septic tanks.
- 73-030(2) Deleted as redundant. See 73-025. Subsequent sections were renumbered.
- 73-030(2)(b) (was renumbered from 73-030(3)) Added flexibility language.  
73-030(2)(c) Changed to limit sand filter discharge to 10 percent of design flow.
- 73-030(2)(d) Deleted the language requiring removal without (electrical) disconnect.
- 73-030(2)(e) (new) Added requirement for installation manual.  
73-030(2)(e),(f),(g) Deleted as redundant. See 73-025.  
73-030(4),(5),(6) Deleted as redundant. See 73-025.
- 73-035(2) Added requirement for watertight connections on distribution boxes.  
73-035(5) Entirely deleted.
- 73-040(2) Deleted the watertight requirement for drop boxes.
- 73-050(1),(2),(4),(7),(8) Deleted these sections as redundant. See 73-025.  
73-050(6) Added requirement to extend inlet fitting to below the low operating level of the pump or siphon.
- 73-055(1) (new) Added design requirements.  
73-055(2) Deleted the language requiring removal without (electrical) disconnect.
- 73-055(3) (new) Added requirement for durable, corrosion resistant components.  
73-055(4) (renumbered from 73-055(1)) Added requirement to pass field

- test of components.
- 73-055(4)(f) Added language on storage capacity at time of alarm.  
73-055(4)(h) Changed sludge storage to "adequate."  
73-055(4)(i) Deleted agent option to waive duplex pump operation for large commercial systems. It is still a Department option.  
73-055(5)(d) (new) Added requirement for cycle counter on dosing siphons.
- 73-056(9) Expanded the service requirement language.  
73-056(11) Deleted.
- 73-065(2)(a) Changed venting language to be less prescriptive.
- 73-085(2)(d)(D)(viii)(I) Changed flood depth to one (1) foot. No leakage is allowed in a 24 hour period.  
73-085(3) Relocated to sand filter operation and maintenance rules 71-305.

**Divisions 14, 45, and 52**

There were no changes from the originally proposed changes to these rules. Effective dates of April 1, 1995, were added to Divisions 14 and 45.

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July 19, 1994

Mr. Fred Hansen  
Director  
Oregon Department of  
Environmental Quality  
811 SW Sixth Avenue  
Portland, OR 97201

Re: Proposed Revision to the On-Site  
Sewage Disposal System Rules

Dear Fred:

As Chair of the On-Site Sewage Disposal Technical Advisory Committee I would like to share my thoughts with you on the draft rules recently released for public comment and to urge the Environmental Quality Commission ("EQC") to adopt the revised rules. As you know, I replaced Arno Denecke, as Chair of the Task Force following his recent death. The Task Force had already spent an enormous amount of time reviewing and revising the existing rules contained in OAR Chapter 340, Division 71 when I joined the group.

The Task Force members worked hard and effectively represented private industry, local agencies responsible for program implementation and DEQ field personnel. They all brought years of practical experience and technical expertise to the Committee's deliberations.

The existing on-site sewage disposal system rules are amazingly out-of-date. They are more detailed and complex than many of the rules on more controversial and technically challenging topics such as the voluntary cleanup program. This reflects, I believe, the difference between these rules and other rules adopted by the EQC. Specifically, these rules must be followed by countless homeowners and contractors throughout the state. In some respects they are more like building codes than environmental quality regulations. They demand the same level of specificity as building codes for the regulated

ATTACHMENT G

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PORTLAND,  
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BOISE,  
IDAHO

SALT LAKE CITY,  
UTAH

WASHINGTON,  
DISTRICT OF COLUMBIA

Mr. Fred Hansen  
July 19, 1994  
Page 2

community to use them effectively. Because of the specificity, however, technical innovation has been forbidden at a time when technologies for environmentally sound on-site sewage disposal are improving greatly. The Task Force had to address balancing the need for cookbook prescriptions with the need for flexibility in the face of rapid technical change.

The existing on-site sewage rules also fail to focus clearly on the environmental protection objectives they are designed to achieve. They were originally written for single family quite straightforward residential septic systems. As Oregon's population has grown, especially in areas outside urban growth boundaries, houses are now being built on sites where it is difficult to install traditional septic systems. These range from steep slopes to boggy areas and require new types of systems. In addition, many nonresidential facilities in rural areas must use on-site sewage systems. These facilities such as restaurants, mobile home parks, kennels and similar commercial establishments pose on-site sewage disposal problems not addressed by the existing on-site rules.

Conceptually there is no difference in the environmental protection standards that should be expected from holders of water pollution control facility permits (where Oregon requires applicants to meet an anti-degradation standard) and the environmental protection requirements for on-site sewage disposal systems. This meant that the Task Force had to reexamine the fundamental distinctions between the so-called standard residential on-site sewage treatment system and the higher volume or special waste facilities which are now covered by the program.

The Task Force decided to redraw the line between the basic systems, where cookbook technical prescriptions and one time permit issuance is appropriate, and the more complex systems where case by case permit review and ongoing compliance with operating permits should be required.

Finally, it became obvious when working with the rules that significant editing and consolidation was needed. As a result, the Task Force recommends consolidating portions of divisions 14, 15, 45 and 52, which regulate certain aspects of the on-site sewage disposal program, into Division 71 where they are easily accessible to the regulated community. This extensive rewrite of the rules is critical, in my opinion, in

Mr. Fred Hansen  
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order to eliminate tremendous confusion and redundancy in the existing rules.

I strongly recommend adoption of the revised rules. Revision is needed not only to make the regulations more understandable, but most importantly to provide better oversight of large and complex systems which are likely to fail if not properly maintained. In addition, the new rules will provide important regulatory flexibility so that as new technology is developed for on-site sewage treatment, it can be utilized in Oregon.

The DEQ staff and especially Charles K. Ashbaker have done an extraordinary job in developing these rules. I would also like to thank all the members of the Task Force and citizens who actively participated in a 17 month effort to complete the rules. I regret that I will not be able to attend the EQC meeting when the rules are adopted; however, I hope you will share this letter with the EQC when they consider the final adoption of the proposed rules.

Sincerely yours,



Gail L. Achterman

GLA:bjc

bcc: Mr. Kent Ashbaker

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ATTACHMENT G

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ONSITE.COM

ATTACHMENT G

State of Oregon  
Department of Environmental Quality

Memorandum

Date: August 22, 1994

**To:** Environmental Quality Commission  
**From:** Charles K. Ashbaker  
**Subject:** Plan for Implementing On-site Sewage Rule Revisions

This modification to the on-site sewage disposal rules is comprehensive and long overdue. Many changes are easy to understand and can be implemented easily without the need for training. However, some are more difficult to understand and will require some training on the Department's part. Shortly after adoption, the Department intends to provide training opportunities throughout the state. This could possibly also be used as the training required of septic system installers as discussed below.

The revised on-site sewage disposal rules require septic system installers to either pass an examination to show their understanding of the on-site rules or to attend a training course on the rules. This has to be accomplished prior to the licensing period which is July 1, 1995. The Department will need to work with the agents to provide a training opportunity or test prior to that time. The preference of the Department, the agents, and those installers who commented on the rules is for the training rather than the examination. However, it will probably be necessary to have an examination available for those who were unable to attend the training session.

Several new categories of on-site sewage disposal systems will require a WPCF operational permit. In order for the Department and contract agents to efficiently implement the rules, it is the Department's intent to issue a series of general permits to cover those categories requiring WPCF permits. That should be accomplished before the April 1, 1995, implementation date of the rules.

At the current time the Department contracts with several municipal entities to act as the Department's agents in implementing the on-site sewage disposal program. Each agent has a contract with the Department. It will be necessary to re-negotiate those contracts once the rules have been adopted. It is anticipated that the contract agents will also distribute the general permits for the Department and conduct most of the site evaluation and plan review functions associated with those permits. This may vary from agent to agent, depending on the staff they have available. The Department intends to have these contracts re-negotiated prior to the April 1, 1995, implementation date of the rules.

ATTACHMENT H



Memo To: Environmental Quality Commission  
August 22, 1994  
Page 2

The rules provide for the appointment of a standing Technical Review Committee to work with and assist the Department in the use of new technology and other on-site issues. This rule becomes effective immediately upon filing with the Secretary of State. This will allow the Director to receive nominations and appoint a committee prior to the April 1, 1995, implementation date of the rules.

The rules modifications are intended to provide some added flexibility to the Department and its agents. It will take some time to establish the ground rules for this added flexibility. It will be necessary for the Department and contract agents to update handouts and other information for homeowners and installers to assist them in understanding the rules.

The reason April 1, 1995, was picked as the implementation date of most of the rules is because it gives the maximum amount of time prior to the next construction season.

ATTACHMENT H

# Environmental Quality Commission

- Rule Adoption Item  
 Action Item  
 Information Item

Agenda Item C  
Meeting September 22, 1994

**Title:**

Revision of Water Quality Permit Fee Schedule for Industrial and Agricultural Wastewater Facilities

**Summary:**

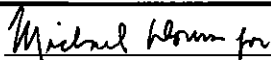
The Department proposes to amend OAR 340-45-070, Permit Fee Schedule. The amendment would increase water quality permit fees for industrial and agricultural facilities regulated by individual permits, and activities covered by general permits. The purpose of this proposal is to raise the revenues required to finance the industrial water quality permitting program in the 1995-97 biennium.

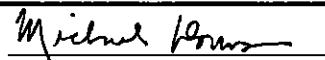
The rule amendment increases fee revenue support of the program to 60% of the total program budget, more aligned with other permitting programs. Increased revenues will also allow the Department to reduce federal funding of the program so that these funds may be more equitably redistributed between all water quality programs. A portion of State general fund revenues will also be reduced from the program budget and replaced by new fee revenue.

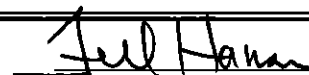
Several text additions are also proposed to clarify the applicability of the rule to confined animal feeding operations (CAFOs) overseen by the State Department of Agriculture, to describe exemptions for certain mining operations, and to incorporate consistency with a separate rule amendment to OAR 340-71 (On-site Sewage Treatment and Disposal).

**Department Recommendation:**

It is recommended that the Commission adopt the rule amendments regarding water quality permit fee schedule for industrial and agricultural wastewater facilities permittees as presented in Attachment A of the Department Staff Report.

  
Report Author

  
Division Administrator

  
Director


September 15, 1994

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

State of Oregon  
Department of Environmental Quality

Memorandum<sup>†</sup>

Date:

**To:** Environmental Quality Commission  
**From:** Fred Hansen, Director   
**Subject:** Agenda Item C, Revisions to Water Quality Permit Fee Schedule for Industrial and Agricultural Wastewater Facilities Permittees, September 22, 1994, EQC Meeting

**Background**

On May 10, 1994, the Director authorized the Water Quality Division to proceed to a rulemaking hearing on proposed rule amendments which would increase water quality permit fees for industrial and agricultural facilities regulated through individual permits, and activities covered by general permits. The purpose of this proposal is to raise the revenues necessary to finance the Department of Environmental Quality's industrial wastewater permit program in the next biennium. The proposed rule amendments do not change any regulations concerning who needs a permit, or the conditions contained in the permits themselves.

Several "housekeeping" amendments are also proposed. Text would be added so that this rule is consistent with a separate rule amendment to OAR, Chapter 340, Division 71 (On-site sewage treatment and disposal). Other proposed text additions would clarify the applicability of fees to confined animal feeding operations in general permit category 800. These facilities are overseen by the State Department of Agriculture, and fees are limited by ORS 561.175. Finally, text will be added to pertinent sections of the rule to clarify the status of general permit categories 600 (placer mining operations) and 700 (suction dredges). These categories are exempt from all or some of the permit fees, depending on the capacity of the mining operation.

The current permit fee schedule contained in OAR 340-45-070 was adopted pursuant to ORS 468.065 (issuance of permits). The schedule assigns fees to various water quality permits issued to domestic, industrial, agricultural and other wastewater dischargers regulated under the Federal National Pollutant Discharge Elimination System (NPDES) program and the State Water Pollution Control Facility (WPCF) program.

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

Memo To: Environmental Quality Commission  
Agenda Item G  
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Page 2

The Department is proposing to amend portions of the permit fee schedule to increase processing and compliance fees for individual industrial and agricultural permits, and general permits. The rule amendments are needed for these reasons: to increase fee revenue support to 60% of the total program budget, for closer alignment with other comparable permitting programs; to replace a substantial portion of the federal funds usually obligated to the industrial wastewater permitting program so that these funds may be redistributed more equitably across all water quality programs; and to replace about \$600,000 of State general funds in keeping with the Governor's directive to reduce general funds from program budgets.

Pursuant to the Director's authorization, a hearing notice was published in the Secretary of State's Bulletin on July 1, 1994. The Hearing Notice and informational materials were mailed on June 27, 1994 to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action.

Two Public Hearings were held: on July 28 at 10:00 a.m. at the Pendleton Convention Center with Wayne Thomas serving as the Presiding Officer; and on July 29 at 10:00 a. m. at 811 SW Sixth Avenue, Portland, Conference Room 3A, with Tom Lucas serving as the Presiding Officer. The Presiding Officers' Reports (Attachment C) summarize the oral testimony presented at the two hearings.

Written comments were accepted through Friday, July 29, 1994, until 5:00 p.m. A list of written comments received is included as Attachment D. (A copy of the comments is available upon request.)

Department staff have evaluated the comments received (Attachment E). Based upon that evaluation, modifications to the initial rulemaking proposal are being recommended by the Department. These modifications are summarized below and detailed in Attachment F.

The following sections summarize the issue that this proposed rulemaking action is intended to address: the authority to address the issue, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

**Issue this Proposed Rulemaking Action is Intended to Address**

As the Department begins the process of developing our budget each biennium, we routinely evaluate program funding levels to determine if funding is sufficient to maintain the level of service expected by the public and the regulated community, and to ensure that our programs continue to protect human health and the environment. In the case of funding for the water quality industrial and agricultural permitting program, our analysis projected an operating deficit for the 1995-97 biennium.

The industrial wastewater program is currently funded through a combination of State general funds, federal funds, and fee revenues. The bulk of support comes from State general funds (about 50%); federal sources provide about 20%. Fee revenues now cover only about 30% of the total operating budget. Other permitting programs reflect a much higher percentage of fee-generated revenues in support of total operating budgets; municipal fee revenues provide about 74% of the program budget for the domestic wastewater permit program, and recently adopted rule amendments to the air quality permitting program will raise fee revenues to about 84% of that program's budget. This rulemaking proposal raises industrial water quality permit fee revenue support to approximately 60% of the total operating budget, thereby aligning the percentage of fee support closer to that of the other comparable programs. Raising fee revenue support to 60% will also serve to satisfy new provisions of the federal Clean Water Act (CWA), now pending reauthorization in the U. S. Congress (see below, and Attachment E, Issue B of this report). No new or increased federal funding is expected as a result of CWA reauthorization.

The relatively lower percentage of fee-support (30%) has meant that the industrial water quality program receives a deeper subsidy of both State general funds and Federal funds than other similar programs. To lessen the subsidy and achieve greater equity, a portion of new revenues generated by increased fees will be used to supplant a significant amount of the federal funds, allowing us to more equitably redistribute these federal funds across all water quality programs. Increased fee revenues will also be used to offset a reduction in State general fund support (we expect in the next biennium that general funds for this program will be reduced by \$600,000 from Ballot Measure 5 impacts, subject to legislative approval. More discussion of this issue is provided in Attachment E, Issue A of this report).

Thus, in order to achieve greater equity (in terms of fee-support) between permitting programs, cover expected reductions in State general fund support, release and more fairly redistribute federal funds, satisfy the provisions of the federal Clean Water Act reauthorization, and otherwise meet projected budgetary requirements, the Department proposes increasing fee revenues for the next biennium from \$1.6 million to roughly \$3.7 million.

### **Relationship to Federal and Adjacent State Rules**

At this time, the federal Clean Water Act awaits reauthorization in the U. S. Congress. While the current law contains no specific requirement to recover costs for administration of water quality permitting programs, the draft reauthorization package contains amendments which would require states to collect fee revenues in amounts sufficient to cover at least 60% of the program budget. (See Attachment E)

Funding reductions could affect the delegation of the Federal National Pollutant Discharge Elimination System (NPDES) permitting program to the State from the U.S. Environmental Protection Agency (EPA). Delegation of the program could be revoked and the implementation responsibility returned to the EPA if program resources are reduced to the point that the State can no longer effectively implement the program. The regulated community has historically expressed support for the State delegation by paying fees to sustain the State's program.

Washington State water quality permit fees are substantially higher than those proposed for Oregon. The Washington program is required by statute to recover 100% of program costs through fees. Washington State fees range from \$102 annually for an oyster shucking and shellfish hatching operation, to \$89,967 annually for a pulp mill using a chlorine bleaching process. Holders of general permits have their base fees reduced by 30% from the individual permit fee for their category. In addition, a permit application fee of 25% of the base fee is assessed for new permit holders with the exception of applicants that request permit coverage under a general permit. (Attachment K provides a further comparison between Washington State and Oregon fees.)

The EPA has not delegated the water quality permitting program to Idaho, making any fee comparisons difficult. EPA administers the Idaho NPDES program, with costs for administration covered by federal appropriations. The EPA has not been empowered with the ability to assess fees for administration of the NPDES program; however, draft legislation for reauthorizing the Clean Water Act includes specific provisions for establishing and collecting fees when EPA operates a state's program.

California's NPDES program comprises 9 categories of discharge fees based on the threat to water quality and the complexity of the discharge. Permit fees range from \$400 to \$10,000 annually. California state law places a \$10,000 fee cap as the maximum amount assessable on any permittee. The program operating budget for fiscal year 1994 is \$32,318,000, of which \$8,426,000 is estimated fee revenue (26% of the program budget).

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### **Authority to Address the Issue**

The statutory authority for the fees is found in ORS 468.065 Issuance of permits; content; fees; use.

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

In 1991, the Department increased industrial wastewater discharge fees to offset a reduction in State general fund support. At that time, the DEQ Water Quality Industrial Permit Fee Advisory Committee supported an increase and recognized the need to properly finance the industrial water quality program.

In May, 1994, the Department staff met with members of the environment committee of the Associated Oregon Industries (AOI) to discuss the potential impact of further reductions of State general fund revenue on the water quality permitting program. The need for the rulemaking action was discussed with this group prior to drafting proposed revisions. The work group also reviewed proposed changes to the permit fee schedule. Subsequently, AOI offered conditional support for adopting the fee increases now, provided that an advisory committee be formed soon to review various permitting issues. (These issues are described below.)

Alternatives to a fee increase include: 1) improving efficiencies in implementing the permitting program without compromising public health or environmental quality; 2) abridging the permitting program through staff and service reductions; or, 3) returning State delegation of the program to EPA. Neither of the latter two alternatives reflects the interests of the public or the regulated community. Each of these alternatives is discussed below:

*Program efficiencies.* The Department has achieved significant permitting efficiencies through various means. Most significantly, the expanded use of the general permitting process, the Department's reorganization and delegation of permit signature authority to the regional administrators, and the implementation of new technologies have improved program service delivery.

The number of active general permits (approximately 1,800 versus 240 individual permits) reflects the extent to which the Department has moved away from the time-intensive individual permitting process. Individual permits require a significantly greater amount of staff time than general permits; the permit must be written specifically for the facility, and a lengthy public notification and hearings process must be conducted prior to permit issuance. To meet more refined or in some cases more restrictive water quality standards, individual permits have become more complex. In some cases, resolution of complex permit issues

takes more time than expected, and thus a backlog has developed. Greater than anticipated growth in the number of new permit applications has also contributed to the permit backlog, even with increased use of general permits. (More information on general permits is found in Attachment E , Issue C, and Attachment G.)

The Department's reorganization has put the permitting program in the regional offices, closer to the regulated community. Signature authority for permits has moved from headquarters to the regional administrator level, placing responsibility and accountability for the program much closer to the regulated community. This action should improve communication on permit issues and expedite turnaround time.

*Reduction in service or staff levels.* Reduced staffing and curtailed services would result in decreased technical assistance, monitoring and compliance inspection activity, and lengthened processing time for permit issuance, modification, and renewals. Severe program reductions would result in inadequate regulation of wastewater discharges, thus leading to further deterioration of Oregon's water quality.

A lack of adequate staffing and program oversight will also cause delays in implementing new EPA requirements (including the Clean Water Act once it is reauthorized) and greater exposure of the regulated community to third party lawsuits.

*Returning the program to EPA.* The Department has operated the wastewater permitting program under delegation from EPA for a number of years. This has worked well and to the benefit of the public and the regulated community. Staff provide technical assistance to the extent possible, and the State rather than EPA has primacy in enforcement actions. Permitting is handled very differently in states where EPA has not delegated the program. The approach taken by EPA in those states can generally be described as "heavy-handed". Minimal technical assistance is offered and enforcement actions characteristically result in very large fines to set an example for other permittees.

### **Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.**

The proposal presented for the public comment describes fee increases applicable to water quality permits for industrial and agricultural facilities, and a few municipalities (i.e. stormwater permits for municipal construction projects). The fees cover two categories of permits: individual and general. Fees are subdivided into three parts: filing fees, application processing fees, and annual compliance determination fees.

*Filing fees.* The filing fees accompanying any application for a permit transaction (i.e. new issuances, renewals, or modifications) would remain at \$50 for both



categories.

*Application processing fees.* If adopted as proposed, application processing fees for new, renewed, and modified (with increased effluent limits) individual permits will double, as will processing fees for new general permits. All permits are issued for periods covering 5 years.

Proposed processing fees for individual permits range from \$1,500 (renewals for minor industries and large dairies) to \$40,000 (new permit for a major industry). Fees charged for modifications to individual permits with no increase in effluent limits would stay at the current amount of \$500.

Processing fees for new general permits are now set at \$50, \$100, and \$150. The amount paid depends on the category of general permit needed. These fees will be increased to \$100, \$200, and \$300. At present, there is no fee charged for general permit renewals. A fee of \$100 is proposed for holders of general permits, payable upon renewal.

*Annual compliance determination (ACD) fees.* These fees would double for individual permits. The proposed ACD fees range from \$900 (large dairies and permittee with evaporation ponds) to \$12,000 (pulp and paper mill). For general permits, an ACD fee increase from \$100 to \$350 is proposed.

An individual permit category is proposed for surimi (fish) processors. These facilities have been issued general permits in the past. The Department proposes moving these facilities (3 are presently operating) onto individual permits, with an annual compliance determination fee of \$2,400. (The rationale for this action is discussed in Attachment E, Issue E.)

In addition to the \$50 filing fee and the \$500 permit modification fee, no changes are proposed for fees associated with special permits (\$250), and modifications to permits for septage alkaline stabilization facilities (\$200).

### **Summary of Significant Public Comment and Changes Proposed in Response**

As reflected in the Hearing Officers' Reports (Attachment C) and Summary of Written Comments (Attachment D), many objections were raised to the Department's proposed rulemaking action. Thirty-five commenters provided oral or written testimony during the comment period. Four commenters testified orally at the Pendleton public hearing (held on July 28, 1994) and four testified orally at the hearing in Portland (July 29, 1994).

All commenters are opposed to increasing permit fees, with a few exceptions. Associated Oregon Industries conditionally supports the fee increase *provided* the Department form an advisory committee to review and resolve permit program issues. One organization providing written testimony, the Pacific Northwest Paint Council, initially opposed the fee increase. After conversations with Department staff, the Paint Council subsequently offered no objections to the fee increase, although the membership does feel that the fee increase is philosophically wrong. Another organization, the Oregon Concrete and Aggregate Producers Association, met with Department staff and decided that the membership would be only marginally affected, and therefore would not object to the fee increase.

The following major issues and concerns were raised in the public testimony:

- The rulemaking package does not adequately justify the need for fee increases. The Department's budget has already undergone legislative review and has been adequately funded for this biennium; therefore, why are we increasing fees?
- Why respond to new requirements contained in the proposed amendments to the federal Clean Water Act when it has not been reauthorized, and probably won't be in this biennium?
- Equity in the fee structure has not been demonstrated: 1) What, if any, inequities exist between domestic (municipal) and industrial permit fees? 2) Why are general permit annual compliance determination fees being raised 250% (from \$100 to \$350) while others are facing only 100% increases?
- No formal advisory committee was used in the development of the rulemaking proposal; will an advisory committee with broad-based representation be formed to review the fee structure?
- Surimi (fish) processors have been unfairly singled out with the proposed new permit category. What is the justification for the fee?
- Combined Animal Feeding Operations (CAFOs) are not affected by this action; need to provide clarifying language in the rule.
- What has DEQ done to reduce spending? to improve efficiency? to streamline internal processes?

- The costs of regulatory compliance now outweigh public benefit; these fees impose too great an economic hardship on businesses; costs for permits and compliance cannot be passed on to consumers; this action will cause loss of industries and loss of jobs.

Attachments E and F provide the Department's detailed discussions of and responses to the issues raised by commenters, summarized as follows:

1. In response to Oregon Department of Agricultural comments, the proposed rule has been revised to include clarifying language concerning general permit category 800, confined animal feeding operations.
2. To address concerns expressed by representatives of the Oregon mining community, text has been added to the proposed rule to clarify the status of general permit categories 600 (placer mining) and 700 (suction dredges). These categories are exempt from all or some of the permit fees, depending on the capacity of the mining operation.
3. One general permit category, 1400-seasonal food processors and wineries, was reviewed by staff pursuant to testimony presented by the winegrowers industry. Of particular concern was the increase to the Annual Compliance Determination fee (from \$100 to \$350). Staff review determined that wineries and seasonal fresh produce packers required less effort in terms of monitoring and compliance than other facilities permitted in category 1400 (i.e. meat packers, canneries, etc.). As a result of our review, staff recommends that general permit category 1400 be divided into subcategories 1400A-wineries and fresh-packs and 1400B-meat packers, canneries, and other food processors. Staff further recommends that the processing fees for 1400A-wineries and fresh-pack facilities be reduced from the proposed level of \$200 to \$100, and annual compliance determination fees reduced from \$350 to \$200. The category 1400B facilities would remain at the proposed processing fee of \$200, with annual compliance determination at \$350.
4. Also as a result of public comment, the staff reviewed the fees associated with application processing for new general permits. Review determined that some categories of permits (i.e. 200-filter backwash, 1400A-wineries and fresh-pack, and stormwater permits for 1200D-textiles, 1200F-food processors, 1200S-sewage treatment plants) are charged higher fees for new permits, yet required less staff effort to review and issue these permits relative to other categories (i.e. seafood processors, gravel mining) which are charged the lowest fees for new permits. Staff recommends that processing fees be lowered from those proposed in the rulemaking package for general permit categories 200, 1200D, 1200F, 1200S, and 1400A.

Staff recommends that further adjustments to general permit fees be made later, after the advisory committee has provided input. Fees for general permits may need modifying to reflect a hierarchy of some sort. The number of general permits has grown dramatically; there may be some activities that have a lesser environmental impact than others within the same or similar group. The general permit category may need to be expanded to include new categories. For example, farms and ranches using groundwater to surfacewater irrigation methods may need coverage by discharge permits.

The Department has not had the opportunity to thoroughly review, revise, and update the general permit structure. This review is now in order. The Department recommends that review and analysis of general permits be added to the list of topics for the advisory committee.

5. Although the majority of commenters are opposed to the fee increases, the Department recommends that the proposed rule be adopted as presented in Attachment A. The Department further recommends that an industrial wastewater program advisory committee be formed by fall of 1994 to look closely at the industrial permitting program. The charge of this advisory committee will be to work with Department staff to comprehensively review all aspects of the industrial water quality permitting program, including equitability and fairness within the fee structure, and to analyze costs associated with performing permit work.

In addition to topics mentioned above, some specific issues to be reviewed and resolved by the advisory committee, as presented by the Associated Oregon Industries in their July 18, 1994 letter, are as follows:

- Improving the timeliness of DEQ action on permit issuance and permit modifications
- Developing a process for assuring DEQ proposed permit conditions have a sound cost/environmental benefit basis (e. g. based on evaluating permit requirements for true environmental benefits) recognizing certain statutes and regulations may constrain such assurance in particular circumstances
- Permit writers imposing permit conditions exceeding the requirements of statutes, rules, and regulations (i.e. monitoring requirements; costly, often unneeded studies)
- Reducing uncertainty in the permitting process

- Improving or publicizing DEQ's internal appeals process for staff actions
- Assuring the requirements of ORS 183.545 (review of rules to minimize economic effect on business) and 183.550 (public comment, factors to be considered in review) are met in a manner meaningful to the regulated community
- Examining and improving the equitability of the permit fee structure

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

The additional revenue from the proposed fee schedule is needed to support the water quality permitting program budget in the 1995-97 biennium. A draft budget is being prepared for consideration by the Governor and subsequent recommendation to the 1995 Legislature. Revenue from these fees will be used to support the budget as recommended by the Governor and approved by the Legislature next year.

If adopted by the EQC, the revised fee schedule will become effective upon filing of the adopted rule with the Secretary of State. The new fees would be immediately applied to all new permit applications, modifications and renewals.

Annual compliance determination fees are invoiced on a fiscal year basis (July 1 - June 30). These fees have already been invoiced to active permittees at the current amounts for this fiscal year (1995). Although effective upon filing with the Secretary of State, the revised ACD fees will not be invoiced until the next regular billing cycle, in summer 1995 for fiscal year 1996.

### **Recommendation for Commission Action**

It is recommended that the Commission adopt the rule amendments regarding water quality permit fee schedule for industrial and agricultural wastewater facilities permittees as presented in Attachment A of the Department Staff Report.

**Attachments**

- A. Rule (Amendments) Proposed for Adoption
- B. Supporting Procedural Documentation:
  - 1. Legal Notice of Hearing
  - 2. Public Notice of Hearing (Chance to Comment)
  - 3. Rulemaking Statements (Statement of Need)
  - 4. Fiscal and Economic Impact Statement
  - 5. Land Use Evaluation Statement
  - 6. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements
- C. Presiding Officers' Reports on Public Hearings
- D. List and Summary of Written Comments Received
- E. Department's Evaluation of Public Comment
- F. Detailed Changes to Original Rulemaking Proposal made in Response to Public Comment
- G. Discussion of Water Quality Permit Fees and Revenues
- H. List of General Permit Categories
- I. List of Major Industrial Sources
- J. Industrial Fee Revenue Analysis
- K. Comparison of Oregon Fees with Washington State Fees for Wastewater Dischargers
- L. Rule Implementation Plan

**Reference Documents (available upon request)**

- Written Comments Received (listed in Attachment D).
- ORS 468.065 Issuance of permits; content; fees; use.
- Oregon Administrative Rules 340-45-070 Permit fees.
- Department of Environmental Quality 1993-95 Legislatively Approved Budget.
- Letter from the DEQ Water Quality Industrial Permit Fee Advisory Committee dated April 8, 1991.
- Federal Clean Water Act - pending legislation in Congress.

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- Letter from the Association of Oregon Industries dated June 2, 1994.
- "A Summary of Other States' Wastewater Discharge Permit Fees", Washington State Department of Ecology, September, 1993, and related administrative rules.

Approved:

Section: Michael Houns for

Division: Michael Houns

Report Prepared By: Janice M. Ringroe

Phone: (503) 229-5589

Date Prepared: 9-15-94

JR:crw  
MW\WC12\WC12824.5

Note: The underlined portions of text represent proposed additions or changes to the rules.

The ~~bracketed~~ portions of text represent proposed deletions from the rules.

**PERMIT FEE SCHEDULE<sup>6</sup>**

**340-45-070**

(1) **Filing Fee.** Unless waived by this rule, a filing fee of \$50 shall accompany any application for issuance, renewal, modification, or transfer of an NPDES permit or WPCF permit, including registration for a General Permit pursuant to OAR 340-45-033 and request for a Special Permit pursuant to OAR 340-14-050. This fee is non-refundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed. The following filing fees are waived:

- (a) Small gold mining suction dredges which qualify for General Permit 700, and with an intake hose diameter of four inches or less;
- (b) Small gold mining operations which qualify for General Permit 600, and which can process no more than five cubic yards of material per day.

(2) **Application Processing Fee.<sup>5</sup>** Unless waived by this rule, [A]an application processing fee shall be submitted with each application. The amount of the fee shall depend on the type of facility and the required action as follows:

(a) New Applications:

(A) Major industries <sup>1</sup> . . . . .	<u>\$ 40,000</u>	[\$20,000]
(B) Minor industries . . . . .	<u>\$ 8,000</u>	[\$4,000]
(C) Major domestic <sup>2</sup> . . . . .		\$ 20,000
(D) Minor domestic <sup>3</sup> :		
(i) Categories Da, Db . . . . .		\$ 4,000
(ii) Category[ies] E[ <del>, F, G</del> ] . . . . .		\$ 2,000
[ <del>(iii)</del> ] Category H . . . . .		<del>\$ 400</del>
<u>(iii)</u> [ <del>(iv)</del> ] Category <u>F[H]</u> . . . . .		\$ 500
(E) Agricultural . . . . .	<u>\$ 8,000</u>	[\$4,000]

(b) Permit Renewals (including request for effluent limit modification):

(A) Major industries <sup>1</sup> . . . . .	<u>\$ 20,000</u>	[\$10,000]
(B) Minor industries . . . . .	<u>\$ 4,000</u>	[\$2,000]
(C) Major domestic <sup>2</sup> . . . . .		\$ 10,000



(D)	Minor domestic <sup>3</sup> :		
	(i)	Categories Da, Db	\$ 2,000
	(ii)	Category[ies] E[,F,G]	\$ 1,000
	<del>(iii)</del>	<del>Category H</del>	<del>\$ 200</del>
(E)	Agricultural	<b>\$ 4,000</b>	<del>[\$ 2,000]</del>
(c) Permit Renewals (without request for effluent limit modification):			
(A)	Major industries <sup>1</sup>	<b>\$ 10,000</b>	<del>[\$ 5,000]</del>
(B)	Minor industries	<b>\$ 1,500</b>	<del>[\$ 750]</del>
(C)	Major domestic <sup>2</sup>		\$ 5,000
(D)	Minor domestic <sup>3</sup> :		
	(i)	Categories Da, Db	\$ 750
	(ii)	Category[ies] E[,F,G]	\$ 500
	<del>(iii)</del>	<del>Category H</del>	<del>\$ 100</del>
	<b>(iii)</b>	<b>[<del>(iv)</del>] Category <u>F</u>[<u>H</u>]</b>	<b>\$ 200</b>
(E)	Agricultural	<b>\$ 1,500</b>	<del>[\$ 750]</del>
(d) Permit Modifications (involving increase in effluent limitations):			
(A)	Major industries <sup>1</sup>	<b>\$ 20,000</b>	<del>[\$ 10,000]</del>
(B)	Minor industries	<b>\$ 4,000</b>	<del>[\$ 2,000]</del>
(C)	Major domestic <sup>2</sup>		\$ 10,000
(D)	Minor domestic <sup>3</sup> :		
	(i)	Categories Da, Db	\$ 2,000
	(ii)	Category[ies] E, F, G	\$ 1,000
	<del>(iii)</del>	<del>Category H</del>	<del>\$ 150</del>
(E)	Agricultural	<b>\$ 4,000</b>	<del>[\$ 2,000]</del>
(e)	Permit Modifications (not involving an increase in effluent limits): All categories		\$ 500
(f)	Special Permits issued pursuant to OAR 340-14-050		\$ 250
(g)	Modifications of septage alkaline stabilization facilities permits		\$ 200
(h) New General Permits, by permit number:			
(A)	100, <del>200</del> , 400, 500, 600 (over 1,500 cubic yards per year), 900, 1000, <u>1200D, 1200S, 1400A</u>	<b>\$ 100</b>	<del>[\$ 50]</del>

(B) [~~200,~~ 300, 1200F, 1300, 1400B, 1500,  
1600 . . . . . \$ 200 [~~\$—100~~]

(C) All other 1200, 1700 . . . . . \$ 300 [~~\$—150~~]

(D) Others not elsewhere specified . . . . . \$ 300 [~~\$—150~~]

(E) In addition, the following fees shall be added to categories (A) through (D) when the listed activities are a required part of the application review process:

(i) Disposal system plan review . \$ 400 [~~\$—200~~]

(ii) Site inspection and evaluation \$ 1,000 [~~\$—500~~]

(i) Renewal of General Permits, as listed in 2(h). . . . . . \$ 100

(j) Application processing fees described in 2(h) and (i) above are waived for specific categories as follows:

(A) Small gold mining operations which qualify for General Permit 600, and which can process no more than five cubic yards of material per day, or more that five cubic yards of material per day but less than 1,500 cubic yards of material per year.

(B) Small gold mining suction dredges which qualify for General Permit 700.

(3) **Technical Activities Fee.**<sup>4,5</sup> All permittees shall pay a fee for NPDES and WPCF permit-related technical activities, as follows:

(a) New or substantially modified sewage treatment facility . . . . . \$ 4,600

(b) Minor sewage treatment facility modifications and pump stations . . . . . \$ 500

(c) Pressure sewer system, or major sewer collection system expansion . . . . . \$ 350

(d) Minor sewer collection system expansion or modification . . . . . \$ 100

<del>(e)</del>	<del>New or substantially modified water pollution control facilities greater than 1,200 gallons per day utilizing on-site wastewater treatment and disposal . . . . .</del>	<del>\$ 500</del>
<del>(f)</del>	<del>New or substantially modified water pollution control facilities 1,200 gallons per day or less utilizing on-site wastewater treatment and disposal . . . . .</del>	<del>\$ 100]</del>
<u>(e)</u> <del>(g)</del>	New or substantially modified water pollution control facilities utilizing alkaline agents to stabilize septage . . . . .	\$ 500

(4) **Annual Compliance Determination Fee Schedule:<sup>5</sup>**

(a) Domestic Waste Sources — Initial and Annual Fee is based on Dry Weather Design Flow, Population Served by Facility, Type of Facility and Applicable Special Fees as follows:

<u>Category</u>	<u>Fees</u>
(A <sub>1</sub> ) Sewage Disposal — 50 MGD or more . . . . .	\$ 42,410
(A <sub>2</sub> ) Sewage Disposal — At least 25 MGD but less than 50 MGD . . . . .	\$ 24,510
(A <sub>3</sub> ) Sewage Disposal — At least 10 MGD but less than 50 MGD . . . . .	\$ 11,020
(B <sub>a</sub> ) Sewage Disposal — At least 5 MGD but less than 10 MGD . . . . .	\$ 6,700
(B <sub>b</sub> ) Sewage Disposal — At least 5 MGD but less than 10 MGD — Systems where treatment occurs in lagoons that discharge to surface waters . . . . .	\$ 3,070
(C <sub>1a</sub> ) Sewage Disposal — At least 2 MGD but less than 5 MGD . . . . .	\$ 4,175
(C <sub>1b</sub> ) Sewage Disposal — At least 2 MGD but less than 5 MGD — Systems where treatment occurs in lagoons that discharge to surface waters . . . . .	\$ 1,825

(C <sub>2a</sub> ) Sewage Disposal — At least 1 MGD but less than 2 MGD . . . . .	\$ 2,510
(C <sub>2b</sub> ) Sewage Disposal — At least 1 MGD but less than 2 MGD — Systems where treatment occurs in lagoons that discharge to surface waters . . . . .	\$ 1,060
(D <sub>a</sub> ) Sewage Disposal — Less than 1 MGD, and not otherwise categorized under Categories E, F, or G . . . . .	\$ 955
(D <sub>b</sub> ) Sewage Disposal — Less than 1 MGD — Systems where treatment occurs in lagoons that discharge to surface waters which are not otherwise categorized under Categories E, F, or G . . . . .	\$ 625
(E) Sewage Disposal — Systems where treatment is limited to lagoons which do not discharge to surface waters . . . . .	\$ 600
<del>[(F) Sewage Disposal — Systems larger than 20,000 gallons per day which dispose of treated effluent via subsurface means only . . . . .</del>	<del>\$ 465</del>
<del>(G) Sewage Disposal — Systems less than 20,000 gallons per day but more than 1,200 gallons per day which dispose of treated effluent via sub-surface means only . . . . .</del>	<del>\$ 440]</del>
<del>(H) — Systems of 1,200 gallons per day or less which dispose of treated effluent via sub-surface means only . . . . .</del>	<del>\$ 150</del>
<u>E[(F)]</u> Septage alkaline stabilization facilities . . . . .	\$ 200
<u>G[(F)]</u> Sources determined by the Department to administer a pretreatment program pursuant to federal pretreatment program regulations ( <b>40 CFR, Part 403; January 28, 1981</b> ) shall pay an additional \$1,000 per year plus \$335 for each significant industrial user specified in their annual report for the previous year.	

~~H~~(K) Population Based Fee — All permittees shall pay an annual fee computed as follows: population served by the facility multiplied by a rate of 0.08038.

~~I~~(L) In addition to applicable fees specified above, special Annual Compliance Fees for Tualatin Basin Pollution Abatement Activities will be applied to the following permittees until Fiscal Year 1998:

(i)	Unified Sewerage Agency - Durham . .	\$ 26,720
(ii)	Unified Sewerage Agency - Rock Creek	\$ 22,995
(iii)	Unified Sewerage Agency - Forest Grove	\$ 5,450
(iv)	Unified Sewerage Agency - Hillsboro .	\$ 4,240
(v)	Unified Sewerage Agency - Banks . . .	\$ 185
(vi)	City of Portland - Tryon Creek . . . . .	\$ 910

(b) Industrial, Commercial and Agricultural Sources (Source and Initial and Annual Fee).

**(For multiple sources on one application select only the one with highest fee)**

- (A) Major pulp, paper, paperboard, hardboard, and other fiber pulping industry . . . . . **\$ 12,000** [~~\$6,000~~]
- (B) Major sugar beet processing, potato and other vegetable processing, and fruit processing industry . . . . . **\$ 12,000** [~~\$6,000~~]
- (C) Seafood Processing Industry:
- (i) Bottom fish, crab, and/or oyster processing . . . . . **\$ 1,350** [~~\$675~~]
- (ii) Shrimp processing . . . . . **\$ 1,350** [~~\$675~~]
- (iii) Salmon and/or tuna processing **\$ 2,400** [~~\$1,200~~]
- (iv) **Surimi processing . . . . . \$ 2,400**
- (D) Electroplating industry (excludes facilities which do anodizing only):

- (i) Rectifier output capacity of 15,000 Amps, or more . . . . . **\$ 12,000** [~~\$ 6,000~~]
- (ii) Rectifier output capacity of less than 15,000 Amps but more than 5000 Amps . . . . . **\$ 6,000** [~~\$ 3,000~~]
- (E) Primary Aluminum Smelting . . . . . **\$ 12,000** [~~\$ 6,000~~]
- (F) Primary smelting and/or refining of non-ferrous metals utilizing sand chlorination separation facilities . . . . . **\$ 12,000** [~~\$ 6,000~~]
- (G) Primary smelting and/or refining of ferrous and non-ferrous metals not elsewhere classified above . . . . . **\$ 6,000** [~~\$ 3,000~~]
- (H) Alkalies, chlorine, pesticide, or fertilizer manufacturing with discharge of process waste waters . . . . . **\$ 12,000** [~~\$ 6,000~~]
- (I) Petroleum refineries with a capacity in excess of 15,000 barrels per day discharging process wastewater . . . . . **\$ 12,000** [~~\$ 6,000~~]
- (J) Cooling water discharges in excess of 20,000 BTU/sec . . . . . **\$ 6,000** [~~\$ 3,000~~]
- (K) Milk products processing industry which processes in excess of 250,000 pounds of milk per day **\$12,000** [~~\$6,000~~]
- (L) Major mining operations (over 500,000 cubic yards per year) . . . . . **\$ 12,000** [~~\$ 6,000~~]
- (M) Minor mining and/or processing operations:
  - (i) Medium (100,000 to 500,000 cubic yards per year) mechanical processing . . **\$ 4,000** [~~\$ 2,000~~]
  - (ii) Medium using froth flotation . . **\$ 6,000** [~~\$ 3,000~~]
  - (iii) Medium using chemical leaching **\$ 8,000** [~~\$ 4,000~~]

- (iv) Small (less than 100,000 cubic yards per year) mechanical processing **\$ 1,000** [~~\$—500~~]
- (v) Small using froth flotation . . . . **\$ 2,000** [~~\$—1,000~~]
- (vi) Small using chemical leaching . **\$ 4,000** [~~\$—2,000~~]
- (N) All facilities not elsewhere classified with disposal of process wastewater . . . . . **\$ 2,400** [~~\$—1,200~~]
- (O) All facilities not elsewhere classified which dispose of non-process wastewaters (i.e., small cooling water discharges, boiler blowdown, filter backwash, log ponds, etc.) . . . . **\$ 1,500** [~~\$—750~~]
- (P) Dairies and other confined feeding operations on individual permits . . . . . **\$ 900** [~~\$—450~~]
- (Q) All facilities which dispose of wastewaters only by evaporation from watertight ponds or basins . . . . . **\$ 900** [~~\$—450~~]
- (R) General permits, as listed under section 2(h)(A) through 2(h)(D) of this rule, except as follows: **\$ 350** [~~\$—100~~]
  - (i) 1400A . . . . . **\$ 200**
  - (ii) Annual compliance determination fees are waived for gold mining activities which qualify for General Permit Categories 600 and 700.

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<sup>1</sup> *Major Industries Qualifying Factors:*

- 1- Discharges large BOD loads; or
- 2- Is a large metals facility; or
- 3- Has significant toxic discharges; or
- 4- Has a treatment system which, if not operated properly, will have a significant adverse impact on the receiving stream; or
- 5- Any other industry which the Department determines needs special regulatory control.

<sup>2</sup> *Major Domestic Qualifying Factors:*

- 1- Serving more than 10,000 people; or
- 2- Serving industries which can have a significant impact on the treatment system.

<sup>3</sup> *Minor Domestic Qualifying Factors:*

- 1- Do not meet major domestic qualifying factors;
- 2- Categories Da, Db discharge to surface waters;
- 3- Categories E **and** F [~~G, H and I~~] do not discharge to surface waters, and are under Water Pollution Control Facilities (WPCF) Permit.

<sup>4</sup> *Technical Activities Fee Qualifying Factors:*

- 1- Fee charged for initial submittal of engineering plans and specifications;
- 2- Fee not charged for revisions and resubmittals of engineering plans and specifications;
- 3- Fee not charged for facilities plans, design studies, reports change orders or inspections.

<sup>5</sup> *Confined Animal Feeding Operations:*

**OAR 340-45-075, Sections (2), (3), and (4) do not apply to General Permit 800, confined animal feeding operations, administered by the Oregon Department of Agricultural.**

<sup>6</sup> *On-site Sewage Disposal Systems:*

**Fees for on-site sewage disposal systems, including those requiring WPCF permits, are found in Division 71 of Chapter 340.**



**NOTICE OF PROPOSED RULEMAKING HEARING**

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

Department of Environmental Quality    Water Quality Division  
**OAR Chapter 340**

<b>DATE:</b>	<b>TIME:</b>	<b>LOCATION:</b>
July 28, 1994	10:00 a.m.	Room 2, Pendleton Convention Center 1601 Westgate Pendleton, Oregon
July 29, 1994	10:00 a.m.	Room 3A, Executive Building 811 SW Sixth Ave. Portland, Oregon

**HEARINGS OFFICER(s):** Pendleton - Wayne Thomas  
Portland - Tom Lucas

**STATUTORY AUTHORITY:**    ORS 468.065

**ADOPT:**

**AMEND:**    OAR 340-45-075

**REPEAL:**

- This hearing notice is the initial notice given for this rulemaking action.
- This hearing was requested by interested persons after a previous rulemaking notice.
- Auxiliary aids for persons with disabilities are available upon advance request.

**SUMMARY:**

The Department of Environmental Quality is proposing to amend OAR 340-45-075 (Permit Fee Schedule). Permit fees for industrial wastewater disposal permits will be increased, including individual National Pollution Discharge Elimination System (NPDES) and Water Pollution Control Facility (WPCF) permits, and general permits.

The fees will be increased in order to generate the projected revenue requirements for the Department's Water Quality program. The Water Quality program has historically been funded in part by state general fund revenue. The fees will replace general funds lost to the water quality program as a result of the passage of the Ballot Measure 5 property tax limitation.

It is possible that the program revenue requirement may be increased or decreased by the Legislature in approving the Department's budget in the 1995 Legislative session.

Several housekeeping amendments are proposed to be consistent with other separate rule amendments to OAR Chapter 340, Division 71 pertaining to on-site sewage treatment and disposal.

New industrial wastewater permit applications and applications for permit renewal will be assessed the higher fees effective September 1, 1994. Existing permitted sources will be invoiced the higher annual compliance determination fees beginning with the 1995 billing cycle.

**LAST DATE FOR COMMENT:** Friday, July 29, 1994 at 4:00 p.m.

**DATE PROPOSED TO BE EFFECTIVE:** Effective after adoption by the Environmental Quality Commission and upon filing with the Secretary of State.

**AGENCY RULES COORDINATOR:**

Chris Rich, (503) 229-6775

**AGENCY CONTACT FOR THIS PROPOSAL:**

Jan Renfroe, (503) 229-5589

Pete Dalke, (503) 229-5588

**ADDRESS:**

Water Quality Division  
811 S. W. 6th Avenue  
Portland, Oregon 97204

**TELEPHONE:**

(503) 229-5588  
(503) 229-5589  
or Toll Free 1-800-452-4011

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

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## **A CHANCE TO COMMENT ON...**

### **REVISION OF WATER QUALITY PERMIT FEE SCHEDULE FOR INDUSTRIAL AND AGRICULTURAL WASTEWATER FACILITIES PERMITTEES**

Date Issued:	6-28-94
Public Hearings:	7-29-94
Comments Due:	7-29-94

**WHO IS  
AFFECTED:**

All industrial and agricultural wastewater facilities regulated under the National Pollutant Discharge Elimination System (NPDES) or Water Pollution Control Facility (WPCF), and general permits issued by the Department of Environmental Quality.

**WHAT IS  
PROPOSED:**

The Department is proposing to amend OAR 340-45-075, Permit Fee Schedule, to raise the required revenues necessary to operate the Department of Environmental Quality's industrial wastewater permit program.

**WHAT ARE THE  
HIGHLIGHTS:**

The Department of Environmental Quality is proposing to amend OAR 340-45-075 (Permit Fee Schedule). The purpose of the amendment is to replace general funds lost to the water quality program as a result of the passage of Ballot Measure 5; to bring industrial permit fees closer to the actual costs of providing regulatory services; and to maintain equity between industrial permit fees and domestic permit fees. The proposed fee increases will provide about 60% of the cost of the industrial wastewater permit program. The remainder of the program will be funded with federal funds and a decreased amount from state general funds.

Permit processing fees and annual compliance determination fees will be substantially increased for industrial and agricultural wastewater dischargers regulated by NPDES, WPCF, and general permits. Most processing fees and annual compliance determination fees will be doubled, except for general permit annual compliance determination fees which will be raised to \$350. Two new fee categories will be added: 1) a general permit renewal fee applicable to all general permits (\$100, payable every five years), and 2) an annual compliance determination fee specific to surimi processing facilities (\$2,400 payable annually).



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

11/1/86

**FOR FURTHER INFORMATION:**

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

Other amendments to the rules include some "housekeeping" items to accommodate revisions to OAR 340-71 (On-site sewage treatment and disposal).

**HOW TO  
COMMENT:**

Copies of the complete rule package may be obtained from the Water Quality Division in Portland, OR (811 SW Sixth Ave, Portland, OR 97204) or the DEQ regional office nearest you. For further information, contact Jan Renfroe, (503)229-5589 or Pete Dalke (503)229-5588, or toll free 1-800-452-4011.

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

July 28, 1994, 10:00am, Room 2 Pendleton Convention Center, 1601 Westgate, Pendleton, Oregon

July 29, 1994, 10:00am, Room 3A, Executive Building, 811 SW Sixth Avenue, Portland, Oregon

Written comments must be received by 5:00 p.m. on 7-29-94 at the following address:

Department of Environmental Quality  
Water Quality Division  
811 S. W. 6th Avenue  
Portland, Oregon, 97204

**WHAT IS THE  
NEXT STEP:**

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

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
Rulemaking Proposal  
for  
Industrial Wastewater Permit Fees

## Rulemaking Statements

Pursuant to ORS 183.335(7), this statement provides information about the Environmental Quality Commission's intended action to adopt a rule.

1. Legal Authority

ORS 468.065

2. Need for the Rule

This rule amendment is needed to address the anticipated revenue shortfall in the Department's water quality permitting program. The projected shortfall is the result of the expected loss of state general fund revenue for the program.

The current permit fee schedule, which was adopted pursuant to ORS 468.065, is inadequate to cover the anticipated costs of processing water quality permit applications (National Pollutant Discharge Elimination System and Water Pollution Control Facility permits) and determining compliance with the water quality permits in the next biennium. It is proposed to modify the fee schedule for industrial permittees to allow for continued implementation and enhancement of the program; to better correspond with the costs of administering the industrial permitting and compliance part of the water quality program; to provide more equity between industrial and municipal permit fees; and, to move the industrial program to be approximately 60% self-supporting as required in the Clean Water Act legislation pending in Congress.

3. Principal Documents Relied Upon in this Rulemaking

- (a) ORS 468.065 Issuance of permits; content; fees; use.
- (b) Oregon Administrative Rules 340-45-070 Permit fees.
- (c) Oregon Administrative Rules 340-45-075 Permit fee schedule.
- (d) Department of Environmental Quality 1993-95 Legislatively Approved Budget.
- (e) Letter from the DEQ Water Quality Industrial Permit Fee Advisory Committee dated April 8, 1991.

- (f) Federal Clean Water Act - pending legislation in Congress.
- (g) Letter from the Association of Oregon Industries dated June 2, 1994.
- (h) "A Summary of Other States' Wastewater Discharge Permit Fees", Washington State Department of Ecology, September, 1993.

4. Advisory Committee Involvement

In 1991, the Department was faced with increasing industrial wastewater discharge fees to offset the loss of state general fund. At that time, the DEQ Water Quality Industrial Permit Fee Advisory Committee supported an increase and recognized the need to properly finance the industrial water quality section of the DEQ.

In May, 1994, the Department staff met with members of the environment committee of the Associated Oregon Industries to discuss the potential impact of further losses of state general fund revenue on the water quality permitting program. The proposed fee schedule for industrial waste permit fees was reviewed and discussed with this group prior to proceeding to rulemaking.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Industrial Wastewater Permit Fees

## Fiscal and Economic Impact Statement

### Introduction

The Department is proposing to increase industrial wastewater permit fees for National Pollutant Discharge Elimination System (NPDES) and Water Pollution Control Facility (WPCF) permits. The water quality permitting program has traditionally been supported by a large percentage of state general fund revenue. The increase in fees is needed to offset the projected reduction in state general fund revenue resulting from the passage of the Ballot Measure 5 property tax limitation. The proposed fee increase will result in the industrial wastewater permitting program being funded by approximately 60% permit fee revenue. The balance will be funded with a decreased amount of state general funds and on-going federal grants from the U.S. Environmental Protection Agency.

The proposed rule increases industrial wastewater permit application processing fees and annual compliance determination fees. Filing fees and special permit fees will remain unchanged. The fee increase will result in greater equity between industrial and municipal wastewater permit fees.

All application processing fees for new permits, permit renewals and permit modifications will be doubled from the current levels. A new fee of \$100 is proposed for general permit renewals. All industrial wastewater annual compliance determination (ACD) fees are proposed to double. Surimi processors presently operate under general permits. A new source permit category is proposed for these businesses. This is needed to help achieve a fairer distribution of fees among permittees in relation to the workload associated with the permits.

The Department is proposing a minimum base ACD fee of \$350 applicable to all industrial permit categories. This change will make the base ACD fees for industrial sources equivalent to the base domestic source ACD fee of \$350. General permit ACD fees are presently set at \$100 and will increase to the base level of \$350 to improve the equity in the fee structure.

The proposed permit processing fees will range from \$10,000 to \$40,000 for major industrial permits; from \$1,500 to \$8,000 for minor industrial permits; and from \$100 to \$300 for general permits. Annual compliance determination fees will range from \$900 to \$12,000 for major and minor industrial permits. General permit ACD fees will be \$350.

By comparison, the ACD fees for domestic waste sources (municipal wastewater and large on-site systems) are based on a minimum base fee, dry weather design flow, population served by the facility, type of facility, and applicable special fees. Special fees cover the regulatory costs related to groundwater protection, sludge management, and pretreatment. The ACD fees for these sources range from \$440 (sewage disposal systems less than 20,000 gallon per day and more than 1,200 gallons per day) to over \$100,000 (sewage disposal of 50 million gallons per day or more). Added to this base fee is a population based fee calculated as population served multiplied by 0.8038. (For example, 100,000 population times 0.8038 = \$8,038 annual population based fee).

Information about wastewater discharge permit fees in other states has been reviewed and compared to the proposed fee structure. Two states, Washington and New Jersey, require 100% of program costs to be recovered through fees. The fee structure in these two states is considerably higher than the proposed fees for Oregon. The industrial wastewater fees collected in other states are difficult to compare with those in Oregon since most are based on discharge volume and/or "waste strength" (BOD, toxicity, etc.) of the discharge. Oregon's fees have historically been based on categories of dischargers. The categories are generally based on the size and type of business (pulp mills, large and small food processors, etc.).

In summary, the proposed fee increase will represent an incremental expenditure increase for businesses or units of government requiring an industrial wastewater permit. New industrial wastewater permit applications and applications for permit renewal will be assessed the higher fees effective September 1, 1994. Existing permitted sources will be invoiced the higher annual compliance determination fees beginning with the 1995 billing cycle. The Environmental Quality Commission may reduce or suspend the fee for a particular facility in the event of a proven hardship.

### **General Public**

The general public may be indirectly impacted by the proposal to raise fees. Businesses may pass the additional permit costs on to consumers in the form of marginally higher prices for goods and services. The potential price impact for consumers is expected to be minimal.



## **Small Business**

Any small business with a wastewater discharge permit for industrial discharges will be impacted by these fee increases. The annual compliance determination fees will double for those facilities which require an individual permit (major or minor category). The ACD fee will increase by two and one-half times for sources which have general permits (from \$100/year to \$350/year). Any business applying for a new permit, modification to an existing permit or a permit renewal will pay higher application processing fees.

General permits are required by many small businesses. These include seafood processing, sand and gravel operations, small food processors and wineries and some gold mining operations. Some small businesses are required to have stormwater permits. These are issued as general permits and the associated fees are proposed to increase.

The Department has tried to establish a schedule of fees which is proportional to the resources needed to process permit applications and for compliance determination. The small business impact for ACD fees, if covered by a General Permit, would be an increase of \$250 per year. If covered by an individual minor source category permit, the impact will be \$750 - \$2,000 per year. This represents a doubling of the current individual minor source ACD fees.

General permits are required to be renewed every five years. The \$100 general permit renewal fee will apply to all holders of general permits.

## **Large Business**

Large businesses with permitted discharges of industrial wastewater will be affected by the same fee increases as small businesses. The large complex (major) industries will pay \$12,000 per year in ACD fees versus \$6,000 per year at the present. These major industries include pulp mills and wet process hardboard, primary metals manufacturing, chemical manufacturing, and large food processing facilities.

The proposed fee schedule for general permits will apply to all permittees, including large businesses.

New facilities planning to locate within the state and requiring an individual wastewater permit (major or minor source category) will be paying application processing fees in the range of \$8,000 to \$40,000.

## Local Governments

There are a few municipalities which have permits for non-sewage wastewaters such as cooling water, filter backwash, geothermal disposal, and stormwater discharges. Most of these "non-sewage" activities are covered by general permits.

The proposed general permit fee schedule will apply to all permittees, including local governments. The ACD fees for activities covered by general permits will increase from a fee of \$100 to \$350 per year. At the time of renewal (every five years) there will be a renewal fee of \$100.

One individual permit is held by a local government. Clatsop County operates a fish hatchery that is regulated under a minor industrial source permit. The associated permit fees are proposed to increase for this source.

## State Agencies

The increased fees are expected to result in approximately \$900,000 annually (\$1.8 million per biennium) in new fee revenue. The revenue will be used to fund costs associated with implementation of the Department's water quality program. The fee increase will place the industrial wastewater program at approximately 60% self-supporting as required in the Clean Water Act legislation pending in Congress.

The proposed fee increases will affect state agencies which have wastewater discharge permits for non-sewage wastewaters. The agency most severely impacted will be the Department of Fish and Wildlife. They have several fish hatcheries which have wastewater discharge permits. In order to reduce the impact, the Department has issued a general permit which covers fish hatcheries. The fees associated with processing applications and determining compliance are much less with facilities covered by general permits than they are with facilities covered by individual permits. The proposed fee schedule will increase the annual compliance determination fees to \$350 per year per hatchery.

The Department of Corrections operates a dairy facility that is regulated under an individual water quality permit. The fees for this permit are proposed to increase by 100% in this proposal.

## Assumptions

The Department is anticipating a decrease of \$600,000 in state general funds for the industrial wastewater permitting program next biennium. The proposed fee schedule is expected to provide replacement and new revenue to fund the industrial wastewater

permitting program. The revenue will be used to replace the lost state general fund revenue for program operations, and to enhance permit processing, technical assistance and compliance activities.

The revenue estimate assumes current levels of activity in terms of the number of outstanding industrial wastewater permits, renewals, and new permits.

These fees were last increased in 1991. An estimate for prior or projected inflation is not included in the revenue and expense calculations. Recent inflationary impacts have been relatively modest and have been absorbed by the program.

The Department has not collected ACD fees for small mining operations regulated under general permits. It is assumed that this practice will continue under the new fee schedule.

Compliance determination for confined animal feeding operation (CAFO) general permits is managed by the Department of Agriculture. The annual fees for CAFOs are set by statute and paid to the Department of Agriculture. The fees for CAFO general permits will not be affected by this rulemaking. It is assumed that although the DEQ tracks these permits, all related fee revenue will continue to go to the Department of Agriculture.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Rule Amendments to Water Quality  
Industrial Waste Water Permit Fees

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The purpose is to increase industrial waste water discharge permit fees to offset the reduction in state general fund revenue. The increased fees will cover an anticipated \$600,000 general fund revenue shortfall in the 1995-97 biennium, substantially improve the equity between industrial and municipal waste water permit fees and will result in industry paying for approximately 60% of industrial permit related program costs.

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

Yes  No

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

These rules indirectly relate to a DEQ permit program which has been determined a DEQ land use program. This program involves the issuance of industrial wastewater discharge permits. The fees are used by the Department to implement the waste water permit program for regulating the discharge of pollutants and for the improvement of water quality.

A National Pollutant Discharge Elimination System permit (NPDES) is required prior to construction of new or modified industrial waste treatment facilities that discharge into public waters. A Water Pollution Control Facility permit (WPCF) is issued for the discharge of wastes on land or injected into the ground.

The loss of state general fund revenue may limit the Department's ability to carry out the water quality permitting program. The proposed rule is intended to provide revenue needed to allow continued program implementation.

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

Yes X No \_\_\_\_\_ (if no, explain):

The issuance of wastewater discharge permits requires a land use compatibility review and written approval by the affected local government. This procedure does not relate to this rulemaking which addresses funding needs for implementing the permit program.

**c. If no, apply the following criteria to the proposed rules.**

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs or rules that relate to statewide land use goals are considered land use programs if they are:

1. Specifically referenced in the statewide planning goals; or
2. Reasonably expected to have significant effects on
  - a. resources, objectives or areas identified in the statewide planning goals, or
  - b. present or future land uses identified in acknowledged comprehensive plans.

In applying criterion 2. above, two guidelines should be applied to assess land use significance:

- The land use responsibilities of a program/rule/action that involves more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

**In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.**

Not applicable.

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

Not applicable.

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Division

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Intergovernmental Coord.

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Date

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

The following questions should be clearly answered, so that a decision regarding the stringency of a proposed rulemaking action can be supported and defended:

Note: If a federal rule is relaxed, the same questions should be asked in arriving at a determination of whether to continue the existing more stringent state rule.

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

No.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Reauthorization of the Clean Water Act is pending before the U.S. Congress. Draft legislation includes provisions for water quality permitting programs to be at least 60% self-supporting from fee revenue. Although not a federal requirement yet, this fee increase will result in fees paying for approximately 60% of the industrial wastewater permitting program.

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

The fee increase addresses the projected general fund revenue shortfall in the 1995-97 biennium in the water quality industrial wastewater program. The increase reflects the anticipated program funding requirements expected to be included in the Clean Water Act reauthorization.

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

The industrial wastewater fee increase will make these permit fees equivalent to domestic wastewater permit fees. Increases in general permit fees will better reflect the workload associated with these permits.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

The fee increase will provide for the continuation and enhancement of the water quality permitting program. The loss of state general fund revenue without replacement fee revenue would result in a diminished permitting program. This could result in inadequate regulation of wastewater discharges and a deterioration of the water quality, and environmental quality in general, in the Oregon.



The U.S. Environmental Protection Agency has delegated implementation of the Federal National Pollutant Discharge Elimination System permitting program to the state. The Department believes that the program is best implemented at the state level. The state authorization for the program could be revoked and the implementation responsibility returned to US EPA if program resources are reduced to the point that the state can no longer effectively implement the program.

State of Oregon  
Department of Environmental Quality

Memorandum

Date: August 1, 1994

**To:** Environmental Quality Commission

**From:** Thomas J. Lucas

**Subject:** Presiding Officer's Report for Rulemaking Hearing  
Hearing Date and Time: July 29, beginning at 10:00 a.m.  
Hearing Location: DEQ Headquarters, Conference 3A.

Title of Proposal: Revision of Water Quality Permit Fees for Industrial  
and Agricultural Wastewater Facilities

The rulemaking hearing on the above titled proposal was convened at 10:05 a.m. People were asked to sign witness registration forms if they wished to present testimony. People were also advised that the hearing was being recorded and of the procedures to be followed.

Seven people were in attendance, Four people signed up to give testimony.

People were then called to testify in the order of receipt of witness registration forms and presented testimony as noted below.

1. **Paul A. Hanneman, Hanneman & Associates, Cloverdale.** Mr. Hanneman stated that fishery and agriculture industries are adamantly opposed to the proposed fee increases. He suggested that the DEQ proposal appears to be an attempt to supersede the November ballot measure intended to refer fee increases to a vote of the people. He suggested that the DEQ proposal should be considered by the Legislative Emergency Board at its next meeting. Mr. Hanneman submitted written testimony for the record.
2. **Mike Sims, Hanneman & Associates, Salem.** Mr Sims represents the **Tillamook County Creamery Association.** He noted the Creamery is the major employer in Tillamook County. He testified that the Association is opposed to the proposed fee increases. The Association believes that the doubling of the annual compliance determination fee from \$6,000 to \$12,000 will be a serious hardship

both to the Association and to the individual dairy farmers. He noted the because of the pricing system imposed on dairy farmers, the increased fees along with other potential cost increases, cannot be passed on to the consumer. Mr. Sims submitted written testimony for the record.

3. **Craig Smith, Vice President, Environmental Affairs, Northwest Food Processors Association, Portland.** Mr. Smith testified that the Northwest Food Processors Association (NWFPA) is strongly opposed to the proposed fee increases. The Association believes that DEQ has not demonstrated a need for additional funding, has not explained why the current fee structure is not equitable, and is attempting to ignore the will of the people and the Oregon State Legislature.

In detailing the Association position, Mr Smith addressed several issues DEQ outlined in the public notice. The Association does not agree that measure 5 cuts have cost DEQ general fund support, and that any general fund cuts, if they occur, must be taken by the 1995 Legislature. The Association believes that fee increases based on anticipatory Clean Water Act legislation requiring the regulated community to pay for at least 60 percent of program costs is premature-if the Clean Water Act amendments are passed and if the amendments require 60 percent program support, then the Association will support a fee increase. The Association does not believe the agency will have budget shortfalls during the current biennium, and anticipated shortfalls in the next biennium should be dealt with by the 1995 Legislature. The Association does not believe there is any evidence to support DEQ's assertion that industrial permit holders are paying an inequitable amount relative to domestic permit holders. The Association stated that if there is an equity issue, it should be addressed by a task force comprised of domestic and industrial permit holders. Mr. Smith submitted written testimony for the record.

4. **Tom Barrows, Northwest Mining Association, Salem.** Mr. Barrows testified that the Northwest Mining Association has several concerns regarding the DEQ process. The Association does not believe the notification process was adequate. Many people were not aware of the proposed fee increases until very recently. The Association believes the timing of the hearing is inappropriate. It is difficult for people to take time off during a workday, and many people would have to travel long distances to get to the hearing. The Association is concerned about the proposed increases. The Association noted that for some permit holders there will be a 1000 percent fee increase in six years if the proposal is adopted by the EQC.

There was no further testimony and the hearing was closed at 11:00 a.m..

Attachments:

Written Testimony Submitted for the Record.

State of Oregon  
Department of Environmental Quality

Memorandum

Date: August 1, 1994

**To:** Environmental Quality Commission

**From:** Jan Renfroe (through Wayne Thomas, Hearings Officer)

**Subject:** Presiding Officer's Report for Rulemaking Hearing  
Hearing Date and Time: July 28, 1994, beginning at 10 AM  
Hearing Location: Pendleton Convention Center  
Pendleton, Oregon

Title of Proposal: Revision of Water Quality Permit Fee Schedule for  
Industrial, Agricultural, and General wastewater  
facilities permittees

Following an informal question and answer session, the rulemaking hearing on the above titled proposal was convened at about 11:00 AM. People were asked to sign witness registration forms if they wished to present testimony. People were also advised that the hearing was being recorded and of the procedures to be followed.

7 people were in attendance, 4 people signed up to give testimony.

Prior to receiving testimony, Ed Liggett from DEQ Eastern Region, and Jan Renfroe DEQ Northwest Region briefly explained the specific rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

People were then called to testify in the order of receipt of witness registration forms and presented testimony as noted below.

1. **Mr. Edwin L. Hardt**  
Small Business owner and Director, Eastern Oregon Mining Association  
616 NE Highway 11  
Pendleton, OR 97801

Mr. Hardt read his testimony from a prepared statement, then submitted the written testimony for the public record. Mr. Hardt is opposed to the proposed fee increase. His comments were directed to the EQC, enumerated as follows:

- "1. The DEQ is growing too big, and too fast, and too powerful.
2. If (Ballot) Measure 5 decreases funding, than DEQ should downsize, that is the will of the people.
3. Administrative fee increases are nothing more than added taxes to the public.
4. All monies that are received for the NPDES should be put in a separate department and that department downsized to just that amount of money received from the feds. In other words, if the federal government is going to impose rules on the state of Oregon, then they (the feds) should pay 100% of the funding as DEQ wants.
5. This (action) is taxes going amok. All the new taxes are double. My wages have not doubled..."

Mr. Hardt further stated that he has previously testified on numerous occasions and feels that his testimony has "fallen on deaf ears", and he expected the same result from this hearing. He expressed concern that this action was being rushed through to avoid legislative scrutiny. He also recommended that the DEQ not go forward with fee increases until reauthorization of the federal Clean Water Act.

2. **Mr. David H. Jensen**  
Vice-President, Finance and Accounting  
Smith Frozen Foods  
P O Box 68  
Weston, OR 97886

Mr. Jensen and his company are strongly opposed to the fee increase. His company is a major employer in the area, and it has been able to ride through tough economic times when their competitors have not. Part of the economic burden has been the increasing costs of regulatory compliance: regulation costs have caused business closures and loss of jobs.

He urges the DEQ to look at the contribution of corporate taxes in determining equitability. He feels that the DEQ proposal did not provide an adequate evaluation of services provided relative to fees charged. He expressed concern that no advisory committee had been used to develop the proposal. In his opinion, the DEQs haste in moving forward with this action gave the appearance of circumventing the legislative process (i.e. taxation without representation). He questioned the rule packages premise that the impacts of Ballot Measure 5 resulted in a shortfall to the general fund portion of industrial wastewater permitting program budget, especially given that the state legislature had reviewed and adequately funded this program. Also questioned was the DEQ argument that the fee increase was needed to meet future Clean Water Act requirements: the CWA reauthorization is not expected to happen this biennium, may not be reauthorized in its present form, and thus DEQ action is premature.

3. **Mr. William H. Roesch**  
712 NW 12th  
Pendleton, OR 97801

Mr. Roesch read from a prepared statement and submitted the statement for the public record. He is also adamantly opposed to the proposed fee increases. He expressed the opinion that DEQ had evolved from a reasonable agency into an oppressive "monster" wielding too much power and costing too much money. He also criticized the hearing notification process (too short, not enough people on mailing list) and scheduling (10AM not a suitable time for individuals and business people who must take time off work to attend). He further stated his belief that the DEQ staff should not make the rules, but that the legislature and the people should make the rules.

4. **Ms. Terry Drever-Gee**  
Environmental Coordinator, Bonanza/Desert Rose Mining, Inc.  
President, Eastern Oregon Mining Association  
Director of Government Affairs, Oregon Independent Miners  
Vice-Chair, Baker/Malheur Regional Alliance (Regional Strategies)  
Baker County Planning Commissioner  
Rt 1 Box 54  
Baker City, OR 97814

Ms. Drever-Gee read from a prepared statement which was presented for inclusion into the public record. She and the organizations she represents are opposed to the fee increase. She provided three attachments along with her written testimony: Resolution 94-0712 from the Baker-Malheur Regional Alliance Board expressing their opposition to

the fee increase; a copy of a letter from State Representative Ray Baum to Fred Hansen asking for further justification of the fee increases and requesting postponement pending legislative review; and a memo from the Baker Economic Development Department outlining all DEQ proposed fee increases.

Ms. Drever-Gee stated that the proposed fees and unreasonable DEQ regulations have detrimental affects on businesses and communities in eastern Oregon. She noted that although Associated Oregon Industries was consulted in the proposal development process, the AOI does not represent all businesses, and small businesses in eastern Oregon were not contacted for comment. She does not believe there is a sound basis for the proposed increases, and that DEQ should respond to measure 5 by looking internally for cost reductions. She recommended that an advisory committee be formed with broad representation and that an analysis be performed by the committee to evaluate program effectiveness and budget allocations. She further commented that as a part of the economic impact of rulemaking, the DEQ should take into consideration the cumulative impact of fee increases on businesses (i.e. air, water, on-site), as well as the incidental costs of compliance, such as engineering studies and reports.

The following people handed in written comments but did not present oral testimony:

None.

There was no further testimony and the hearing was closed at about 12:00 PM.

Attachments:

Written Testimony Submitted for the Record.



## SUMMARY OF WRITTEN COMMENTS RECEIVED

1. **Ted Gerber, Co-owner, Foris Vineyards Winery.** Mr. Gerber testified that the proposed fee increase for compliance determination is exorbitant. He stated that DEQ staff had never set foot on his property in seven years, and wondered what was the purpose of the fee. He noted that his treatment facility is a waste water evaporation pond with no standing water.
2. **Bill Nelson, Executive Director, Oregon Winegrower's Association.** Mr. Nelson stated the most Oregon wineries are small businesses and that the proposed 250 percent compliance fee increase was discriminatory when proposed compliance fee increases for other industrial permittees was only 100 percent. He urged that the increase for winegrowers be the same as for other permittees.
3. **Donald C. Smith, D & E Wood Products, Inc., Prineville.** Mr Smith stated that D & E Wood Products is a small business with nine employees that is over regulated and over taxed in user fees. He is opposed to the fee increase.
4. **John G. Duyn, Carlton Packing Company, Carlton.** Mr. Duyn testified that measure 5 was a mandate to reduce spending and not to transfer to user fees. He wants DEQ spending reduced rather than increase fees.
5. **Charles D. Craig, Assistant Administrator, Natural Resources Division, Oregon Department of Agriculture (DOA).** The DOA acknowledged that the DEQ does not intend to increase fees for permits issued under general permit category 800, Confined Animal Feeding Operations. The DOA testified that clarifying language should be added to OAR 340-45-075, Sections 2, 3, and 4, to ensure that these sections do not apply to confined animal feeding operations operating under a general permit.
6. **David L. Harris, President, Truax Harris Energy Company, Wilsonville.** Mr. Harris is opposed to the proposed fee increases. He stated that fees should not be increased to replace funds lost due to measure 5 but that DEQ should operate within available resources. He opined that the Department did not justify the costs of providing regulatory services and that consequently the proposed fee increase is unsupported. Mr. Harris does not believe that DEQ demonstrated the need to raise fees to maintain equity between industrial permit fees and domestic permit fees. He also noted that DEQ did not utilize an advisory committee to help develop options.

7. **Trudy Webb, General Manager, Inland Quick Freeze, Albany.** Ms. Webb stated that Inland Quick Freeze is opposed to the proposed fee increases and that businesses cannot continue to pay the burden of government regulatory costs. She noted that Inland Quick Freeze has held price increases to less than five percent over a six year period, and that they would be out of business if they doubled their rates as DEQ proposes to do.
8. **Kim C. Woodard, Kimwood Corporation, Cottage Grove.** Mr. Woodard stated that the Kimwood Corporation is opposed to the proposed fee increases and is concerned about the impact of constant fee increases on small businesses. He suggested that the that the increase be allocated not just to businesses but allocated also to DEQ, state general fund and the federal government.
9. **Jerry Bates, President, Depoe Bay Fish Co., and General Manager, Arctic Alaska Surimi and Meal Operations, Newport Facility.** Mr Bates is opposed to the proposed fee increases and is particularly concerned about adding a new fee category for surimi processors. He stated that the imposition of a new fee for surimi processors is discriminatory and will have detrimental impacts on the fishing industry. He suggested that DEQ first strive for internal efficiency to reduce expenses and only after that is accomplished should fee increases be considered.
10. **Terry Drever-Gee, Vice Chair, Baker\Malheur Regional Strategies Board, President, Eastern Oregon Mining Association, Baker County Planning Commissioner, other representation.** Ms. Drever-Gee stated that the proposed fees and unreasonable DEQ regulations have detrimental affects on businesses and communities in eastern Oregon. She noted that small businesses in eastern Oregon were not contacted for comment. She does not believe there is a sound basis for the proposed increases, and that DEQ should respond to measure 5 by looking internally for cost reductions. She recommended that an advisory committee be formed with broad representation and that an analysis be performed by the committee to evaluate program effectiveness and budget allocations.

A resolution by the Regional Strategies Board was attached her testimony. The resolution opposes the proposed fee increases.
11. **Ray Baum, State Representative District 58, Chair, House Natural Resources Committee.** Representative Baum expressed serious concerns with the proposed fee increases. He stated that it was difficult to justify the increases and that there is no public support. He believes that the agency is adequately funded for the 1993-95 biennium. He recommended that the Department first justify the increases and not recommend EQC action until the 1995 Legislature has opportunity to review the agency budget.

12. **James Whitty, Legislative Counsel, Associated Oregon Industries (AOI).** AOI recognizes the need for an adequately funded permitting program and the need for fee increases necessary to maintain the program. AOI is concerned about the proposed increases, however, and believes that a program review is necessary to look for ways to improve both efficiency and interaction with the regulated community. AOI supports the proposed fee increases subject to formation of an advisory committee to review specific issues, as follows: improved timeliness in permit actions, a process for ensuring that permit conditions have a sound cost\environmental benefit basis, elimination of excessive permit conditions, reducing uncertainty in the permitting process, improved internal appeals process, a process to ensure requirements of ORS 183.545 and 183.550 are addressed, and a process for ensuring that the fee structure is equitable. The AOI does not support fee increases to the extent the general fund monies may be made available for industrial waste treatment permitting activities by the 1995 Legislature.
  
13. **Craig Smith, Vice President, Environmental Affairs, Northwest Food Processors Association.** The Northwest Food Processors Association (NWFPA) is strongly opposed to the proposed fee increases. The Association believes that DEQ has not demonstrated a need for additional funding; has not explained why the current fee structure is not equitable; and is attempting to ignore the will of the people and the Oregon State Legislature.

In detailing the Association position, Mr Smith addressed several issues DEQ outlined in the public notice. The Association does not agree that measure 5 cuts have cost DEQ general fund support, and that any general fund cuts, if they occur, must be taken by the 1995 Legislature. The Association believes that fee increases based on anticipatory Clean Water Act legislation requiring the regulated community to pay for at least 60 percent of program costs is premature--if the Clean Water Act amendments are passed and if the amendments require 60 percent program support, then the Association will support a fee increase. The Association does not believe the agency will have budget shortfalls during the current biennium, and anticipated shortfalls in the next biennium should be dealt with by the 1995 Legislature. The Association does not believe there is any evidence to support DEQ's assertion that industrial permit holders are paying an inequitable amount relative to domestic permit holders. The Association stated that if there is an equity issue, it should be addressed by a task force comprised of domestic and industrial permit holders.

14. **Michael E. Cook.** Mr. Cook is opposed to proposed fee increases. He stated the fee increases are simply taxes to replace revenue lost through measure 5 reductions. Mr. Cook opined that the burden of the fees is borne by the public through higher prices or by workers through layoffs or lower wages.

15. **Ted Decious, Ted Decious Co., Inc, Gresham.** Mr. Decious is concerned about the proposed fee increases and the hardship they will pose for small businesses because it will be difficult to absorb. He suggested that DEQ should consider an incremental approach where fees would be increased slowly over a period of years. He also suggested the DEQ could increase revenues by finding businesses that have not obtained required permits.
16. **Keith Lowe, Safety Director, Oregon Trucking Associations, Inc.** The Oregon Trucking Association is opposed to the proposed fee increases. The Association believes that measure 5 was intended to reduce government spending, and that the fee increases will simply shift the burden back to the taxpayer. The Association suggested that other alternatives should be considered such as identifying and collecting fees from businesses who haven't complied with the regulations.
17. **Stephen C. Sharpe, Manager, Mt. Jefferson Woolens, Jefferson.** Mr. Sharpe is opposed to the proposed fee increases. He noted that the proposed increases are based on projected costs rather than historical costs. He stated that it is irresponsible to expect business to bear the bulk of the costs of supporting DEQ's permitting structure. He suggested that DEQ respond to measure 5 by exercising fiscal restraint rather than increasing fees. Mr. Sharpe also noted that the Clean Water Act re-authorization hasn't passed, and that it would be wiser to wait until the law passes before making any changes.
18. **Paul Hanneman, Hanneman & Associates.** Mr. Hanneman stated that fishery and agriculture industries are adamantly opposed to the proposed fee increases. He suggested that the DEQ proposal appears to be an attempt to supersede the November ballot measure intended to refer fee increases to a vote of the people. He suggested that the DEQ proposal should be considered by the Legislative Emergency Board at its next meeting.
19. **Mike Sims, Hanneman & Associates.** Mr Sims represents the Tillamook County Creamery Association. He testified that the Association, representing nearly 200 dairy farmers, is opposed to the proposed fee increases. The Association urges the EQC to not adopt the proposed fee schedule. The Association believes that the doubling of the annual compliance determination fee from \$6,000 to \$12,000 will be a serious hardship both to the Association and to the individual dairy farmers. He noted the because of the pricing system imposed on dairy farmers, the increased fees along with other potential cost increases, cannot be passed on to the consumer. Consequently they become out of pocket expenses to the dairy farmer.

20. **Ted Hughes Pacific NW Paint Council.** Mr. Hughes represents over 100 Oregon paint and coatings manufacturers and distributors. The Council is opposed to the proposed fee increases, and believes it is wrong to replace general fund money lost through measure 5 by fee increases. The Council recommends that DEQ convene a technical advisory committee to explore options to a fee increase.

(NB: Staff spoke directly with Mr. Hughes to discuss the impacts of the fee increases on Paint Council members. It was determined that impacts would be minimal. Mr. Hughes wrote a subsequent letter dated August 2, 1994, indicating that while the Paint Council was philosophically opposed to the increase, the organization would not object to the proposed rule revisions.)

21. **Harold Schild, General Manager, Tillamook County Creamery Association.** Mr. Schild first commented that the Creamery has had a good working relationship with DEQ staff except in the area of engineering plan review. He stated that it is hard to understand how the Department's cost for permit compliance activities could possibly approach the amounts proposed. Mr. Schild cannot support a fee increase at this time and endorses the Associated Oregon Industries proposal for DEQ to convene a technical advisory committee to review the industrial waste treatment permitting program.
22. **David R. Nowlin, Vice President, Brandy Peak Distillery, Brookings.** Mr. Nowlin is opposed to the proposed fee increase, and believes that the proposed \$350 annual compliance fee is out of line. He stated that only fruit processors with threat of direct discharge to streams should be required to have a permit. He also suggested the creation of a permit category for very small producers which would accurately reflect the pollution threat posed, and which should not create an undue compliance burden.
23. **John M. Grace, President, Greater Eastern Oregon Economic Development Corporation.** Mr. Grace stated the Corporation is opposed to any fee increases, and suggested that the fees be considered within the overall State budget. He expressed concern about the impact of the fees on business, government and community in the State, and believes these impacts should first be evaluated before considering a fee increase.
24. **Barnard E. Smith, Grants Pass.** Mr. Smith expressed concern about the proposed fee increases. He noted that many small farm enterprises, including wineries, are marginal and that it is not possible to pass along the increased cost to consumers.

25. **John Boyer, President, Baker County Livestock Association.** The Baker County Livestock Association, representing over 300 members, is opposed to the proposed fee increases. The Association believes the proposed fees are unreasonable, have not been justified, and are an attempt to get around measure 5 restrictions. He noted that the legislature approved the DEQ budget one year ago and the fees were adequate at that time.
26. **Kay and Gus Markgraf, Oregon Cattlemen's Association, Private Lands Committee.** The Cattlemen's Association is opposed to the proposed fee increases. The Association believes that the fee increases will not improve efficiency, and will damage an industry already suffering from overregulation and market price cuts.
27. **L. Douglas Highberger, Frank Lumber Co., Inc., Mill City.** Mr Highberger is opposed to the proposed fee increases on the grounds that they will seriously affect small businesses through increased costs with little increase in service.
28. **Jerry A. Reid, Salem Economic Development Corporation (SEDCOR).** The SEDCOR is opposed to the proposed fee increases citing lack of adequate notification, and the devastating affect they will have on businesses. SEDCOR recommended an extension of the deadline to allow time for a proper forum on the issue, and that DEQ install a cost accounting system to facilitate efficient management.
29. **David H. Jensen, Vice President for Finance and Operations, Smith Frozen Foods.** Smith Frozen Foods, Inc., a major employer in the area, is adamantly opposed to the proposed fee increase. Mr. Jensen's letter outlined several reasons for this opposition: northeast Oregon businesses, already economically stressed, cannot bear the increasing costs of regulatory compliance; the state legislature has reviewed and adequately funded DEQs programs for this biennium; this increase would result in lost industries and lost jobs; no advisory committee was used to develop the proposal; no consideration was given to the tax contributions of corporations; and finally, the proposal should be processed through legislative channels.
30. **Vickie Coleman, American Fine Foods, Inc.** American Fine Foods understands the reasoning behind the proposed fee increase, and believes that it is in industries best interest to maintain the permitting programs within the state (not EPA). The company further feels that DEQ effectively administers water quality programs; however, the company cannot support the proposed fee increases as described in the rulemaking proposal. Alternatives need to be explored; an advisory committee with broad-based representation should be involved; that state should wait until reauthorization of the Clean Water Act; then any increases should be phased in to lessen the impact on industry.

31. **Bill Fisher, State Representative, District 45, Douglas County.** Rep. Fisher wrote in opposition to the fee increase, stating that his constituency has expressed their displeasure at the proposed fee increase, especially in light of current economic conditions effecting the natural resource industry. He further suggested that the Department delay implementing the proposed fee increase until after legislative review.
32. **Mae Yih, State Senator, District 19, Linn and Benton Counties.** Sen. Yih stated that she had received numerous complaints from her constituency regarding the proposed fee increase for both air and water permits. She expressed no support or opposition to the proposal, but requested more information about the justification for the Department's actions to better respond to her constituents.

## EVALUATION OF PUBLIC COMMENT

Part I: **SUMMARY OF MAJOR ISSUES AND CONCERNS:** (The following are the major issues and concerns expressed by commenters about the proposal to increase fees for individual industrial or agricultural permits, and general permits, through both written and oral testimony.)

- A. The rulemaking package does not adequately justify the need for fee increases. Ballot Measure 5 did not cut the DEQ budget, and voters did not intend that budget shortfalls from general fund reductions be restored through new fees. Further, DEQ's budget has already undergone legislative review and has been adequately funded for this biennium; therefore, why are we increasing fees?
- B. Why respond to new requirements contained in the proposed amendments to the federal Clean Water Act when it has not been reauthorized, and probably won't be in this biennium? It would seem more prudent to postpone rulemaking until the CWA is reauthorized and the requirements effected.
- C. Equity issues: 1) The DEQ argument that inequities exist between domestic (municipal) and industrial permit costs is not adequately supported. 2) Why are general permit Annual Compliance Determination fees being raised 250% (from \$100 to \$350) while others are facing only 100% increases? 3) Equity between permit categories is not demonstrated (i.e. the proposed Annual Compliance Determination fee of \$350 applies to all general permit categories.).
- D. No formal advisory committee was used in the development of the rulemaking proposal; the Associated Oregon Industries is not representative of all businesses and industries; will an advisory committee with broad-based representation be formed to review the fee structure?
- E. Surimi (fish) processors have been unfairly singled out with the proposed new permit category. What is the justification for the fee?
- F. Combined Animal Feeding Operations (CAFOs) are not affected by this action; need to provide clarifying language in the rule.
- G. What has DEQ done to reduce spending? to improve efficiency? to streamline internal processes?
- H. The costs of regulatory compliance now outweigh public benefit; these fees impose too great an economic hardship on businesses; costs for permits and compliance cannot be passed on to consumers; this action will cause loss of industries and loss of jobs.



The following chart summarizes each commenters testimony, relative to these issues/concerns:

	<i>Commenter</i>	<i>Major Issues</i>							
		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
1	Ted Gerber, Foris Vineyards (GEN14-wineries)	x						x	
2	Bill Nelson, OR Winegrowers Assn (100+ members, 29 with GEN14 permits)			x					
3	Donald C. Smith D&E Wood Products (GEN12W-stormwater)								x
4	John Duyn, Carlton Packing Co. (MinWPCF-process water)							x	x
5	Charles Craig Oregon Dept of Ag (CAFOs)						x		
6	David Harris Truax Harris Energy (GEN15-petro/hydro clean)	x		x	x				
7	Trudy Webb Inland Quick Freeze (MinWPCF-IWN, GEN12F)							x	x
8	Kim C. Woodward Kimwood Corp. (MinNPDES-process water)	x						x	x
9	Jerry Bates Depoe Bay Fish Co. (GEN09-fish processors)					x		x	
10	Terry Drever-Gee E Oregon Mining Assoc (MinNPDES-small mining)	x	x		x			x	x
11	Ray Baum State Rep, Dist 28	x							
12	Jim Whitty Assoc Oregon Industries				x				

	<i>Commenter</i>	<i>Major Issues</i>							
		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
13	Craig Smith NW Food Processors Assn (46 OR members)	x	x	x	x				
14	Michael Cook Concerned citizen								x
15	Ted Decious Ted Decious, Inc. (GEN17-veh wash water)							x	x
16	Keith Lowe Oregon Trucking Assn (GEN12T, GEN17)							x	
17	Stephen C. Sharpe Mt. Jefferson Wools (MinWPCF-process water)		x						x
18	Paul Hanneman Hanneman & Assoc (fisheries and ag ind)								x
19	Mike Sims Hanneman & Assoc (Tillamook Creamery Assn)								x
20	Ted Hughes Pacific NW Paint Assn (42 OR members, 13 with GEN 12 permits)	x			x				
21	Harold Schild Tillamook Creamery Assn (200 dairy farmers) (MajNPDES-milk processor)	x			x				
22	David R. Nowlin Brandy Peak Distillery (GEN14-wineries)			x					x
23	John Grace E Oregon Econ Dev Corp				x				x
24	Barnard Smith (GEN14-wineries)								x
25	John Boyer Baker Co Livestock Assn	x							x

	<i>Commenter</i>	<i>Major Issues</i>							
		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
26	Kay & Gus Markgraf Oregon Cattlemens Assn	x							x
27	L. Douglas Highberger Frank Lumber Co (GEN04-logpond, GEN12W)								x
28	Jerry A. Reid Salem Econ Dev Corp				x			x	x
29	David Jensen Smith Frozen Foods (MinWPCF-IWN, GEN12F)	x	x	x	x				x
30	Vickie Coleman American Fine Foods (MinNPDES-IWN, GEN01)	x	x		x			x	
31	Tom Barrows NW Mining Assn								x
32	Bill Fisher State Rep, District 45	x							x
33	Mae Yih State Senator, Dist 19	x							
34	William Roesch Concerned citizen								x
35	Edwin Hardt E Oregon Mining Assn	x	x					x	x
	<b>TOTALS</b>	15	6	5	10	1	1	11	22

(Part II of this attachment discusses each major issue or concern in detail, followed by the Department response. The numbers next to each commenter shown on the table above correspond to the numbers listed in the narrative below.)

## Part II: **RESPONSE TO TESTIMONY**

The Department issued a "Chance to Comment" package on June 27, 1994, then held two public hearings to accept testimony on the proposed fee increase: one hearing in Pendleton, Oregon at the Pendleton Convention Center on July 28, 1994, and the other at the DEQ Headquarters in Portland, Oregon on July 29, 1994. The deadline for written testimony was July 29, 1994 by 5:00 pm.

Thirty-five commenters provided oral or written testimony during the comment period: 13 representing trade associations, 2 representing economic development corporations, 16 representing themselves or their businesses, 3 state senators or representatives, and one state agency. Four commenters testified orally at the Pendleton public hearing (held on July 28, 1994) and four testified orally at the hearing in Portland (July 29, 1994).

All commenters are opposed to increasing permit fees, with a few exceptions. Associated Oregon Industries conditionally supports the fee increase *provided* the Department form an advisory committee to review and resolve permit program issues. One organization providing written testimony, the Pacific Northwest Paint Council, was initially opposed to the fee increase. After conversations with Department staff, the Paint Council subsequently offered no objections to the fee increase, although the membership does feel that the fee increase is philosophically wrong. Another organization, the Oregon Concrete and Aggregate Producers Association, met with Department staff and decided that the membership would be only marginally affected, and therefore would not object to the fee increase.

The following is a summary of the major issues and concerns raised in the written and oral testimony, along with the staff response to the testimony received:

**ISSUE A: The rulemaking package does not adequately justify the need for fee increases. Ballot Measure 5 did not cut the DEQ budget, and voters did not intend that budget shortfalls from general fund reductions be restored through new fees. Further, DEQ's budget has already undergone legislative review and has been adequately funded for this biennium; therefore, why are we increasing fees?**

Fifteen commenters (1, 6, 8, 10, 11, 13, 20, 21, 25, 26, 29, 30, 32, 33, 35) noted that the proposed fees were not adequately justified in the rulemaking package in terms of need for the increase, how the amount of the increases were calculated, or a correlation between activities or services to be performed and the fees

charged. Of these fifteen, ten (4, 6, 8, 10, 13, 14, 16, 17, 25, 29) offered the opinion that tying fee increases to Ballot Measure 5 impacts was inappropriate. Several (11, 13, 20, 25, 26, 29, 30, 32, 33, 35) further noted that the DEQ budget for this program had already been subjected to legislative review and has been adequately funded. Others (29, 32, 35) commented that the haste with which this action is proceeding led them to believe that the Department was circumventing the legislative process.

RESPONSE: ***Justification for increase.*** The justification for the fee increase was based on an analysis of anticipated expenses for implementing the water quality industrial wastewater program in the next biennium. The Department's analysis assumes that current staffing and service levels will be maintained, and that program delivery would be enhanced through various means: more frequent technical assistance and site visits (especially to permittees infrequently visited); reducing the amount of permit backlog; and improving responsiveness on permit issues. The budget development process also considered the possibility of achieving greater equity between permitting programs in terms of fee revenue support.

The industrial wastewater program is currently funded through a combination of State general funds, federal funds, and fee revenues. The bulk of support comes from State general funds (about 50%); federal sources provide about 20%. Fee revenues now cover only about 30% of the total operating budget. Other permitting programs reflect a much higher percentage of fee-generated revenues in support of total operating budgets; municipal fee revenues provide about 74% of the program budget for domestic wastewater permits, and recently adopted rule amendments to the air quality permitting program will raise fee revenues to about 84% of that program's budget. This rulemaking proposal raises industrial water quality permit fee revenues to approximately 60% of the total operating budget, thereby aligning the percentage of fee support closer to that of the other comparable programs.

The relatively lower percentage of fee-support (30%) has meant that the industrial water quality program receives a deeper subsidy of both State general funds and Federal funds than other similar programs. To lessen the subsidy and achieve greater equity, a portion of new revenues generated by increased fees will be used to supplant a significant amount of the federal funds, allowing us to more equitably redistribute these federal funds across all water quality programs. Increased fee revenues will also be used to offset a reduction in State general fund support (we expect in the next biennium that general funds for the program will be reduced by \$600,000 from Ballot Measure 5 impacts. More discussion of this issue is provided in Attachment E, Issue A of this report).

Thus, in order to achieve greater equity (in terms of fee-support) between permitting programs, cover expected reductions in State general fund support, release and more fairly redistribute federal funds, and otherwise meet projected budgetary requirements, the Department proposes increasing fee revenues for the next biennium from \$1.6 million to roughly \$3.7 million.

The calculations of revenue requirements and justification for the permit fee increase were made at a level of aggregation which precludes specifying services provided to each permittee. At this time, the Department lacks the information necessary to provide cost data on an individual permit basis.

As noted by many commenters, an advisory committee was not used in the development of this proposal. The Department is recommending the creation of an advisory committee to review ways to modify and improve the permit fee schedule so that it more accurately reflects fairness and equity.

***Ballot Measure 5 impacts:*** As noted above, the proposed rule revision reflects an expected reduction in general fund revenues stemming from the passage of Ballot Measure 5. The Governor gave the Department a directive to reduce general funds from overall budgetary requirements for the next biennium. This directive to reduce reliance on general fund did not include a directive to reduce our commitments to protect public health and the environment. The industrial water quality permitting program has historically been supported in large part by general funds. Through the departmental budgeting process, the Department estimated that the industrial water quality program budget for the next biennium should be reduced by \$600,000 in general funds. As noted below, this action is subject to legislative review.

***Legislative Review.*** The commenters are correct in their understanding that the water quality program budget has already been approved by legislators for this biennium (1993-1995). The fees generated from the proposed rule revision would be a part of the 1995-1997 program budget.

The Department began the budgeting review process for the 1995-1997 biennium in January 1994. This process included an evaluation of program funding levels to determine if anticipated funding is sufficient to maintain the level of service expected by the public and the regulated community, and to ensure that our programs continue to carry out our mission to protect human health and the environment.

The budget for the next biennium will be submitted to the Governor in January of 1995, then to the 1995 legislature for review and approval. Any fees which the Department collects in this biennium are subject to legislative review, evaluation, and spending authorization.

**ISSUE B: Why respond to new requirements contained in proposed amendments to the federal Clean Water Act (CWA) when it has not been reauthorized, and probably won't be in this biennium? It would seem more prudent to postpone rulemaking until CWA is reauthorized and requirements come into effect.**

Six commenters (10, 13, 17, 29, 30, 35) noted that reauthorization of the federal Clean Water Act would probably not happen this biennium, and in all likelihood it won't be reauthorized by Congress until the 1995 session, at the earliest. Commenters noted that it appeared we were being premature and irresponsible to base fee increases on "anticipatory regulation".

**RESPONSE:** The commenters are correct in their understanding that the reauthorization of the federal Clean Water Act is pending in Congress. There is speculation about the actual timing of the reauthorization.

The Department has information from qualified sources indicating that the reauthorization package--though held up in committee--will be passed soon, probably within the next congressional session. It is expected that the reauthorized Act will contain language requiring states to collect fees in amounts at least equal to 60% of the costs of developing and administering the National Pollutant Discharge Elimination System (NPDES) water quality program. (The specific provision in most drafts of the reauthorization is contained under Title V, Permit Program and Enforcement, section 501)

In the event that the State either does not meet the Clean Water Act requirements, or inadequately administers the NPDES program, or is not given the legislative authority to administer the program, then the federal Environmental Protection Agency (EPA) will revoke the State's delegation. Administration would be overseen directly by EPA. Fees would be established and collected by EPA.

The State of Oregon has been delegated authority to administer the NPDES program, and has successfully operated the program for a number of years. The Department believes that responsibility for program implementation should remain within the State. Therefore, staff believes that responding now to pending federal legislation is both prudent and responsible, and recommends that the fee increase reflect the expected federal requirement for these reasons: to make a smooth

transition to the new requirements, to assure program continuity with no loss of service, and to ensure that the State maintains primacy for the Oregon's environmental programs.

**ISSUE C: Equity issues: 1) The DEQ argument that inequities exist between domestic (municipal) and industrial permit costs is not adequately supported. 2) Why are general permit Annual Compliance Determination fees being raised 250% (from \$100 to \$350) while others are facing only 100% increases? 3) Equity between permit categories is not demonstrated (i.e. the proposed Annual Compliance Determination fee of \$350 applies to all general permit categories).**

Four commenters expressed concern about various equity issues (6, 13, 22, 29). As noted above, all commenters were in opposition to the fee increase, with few exceptions.

One commenter (29--Mr. Jensen, Smith Frozen Foods) questioned our premise that industrial fees should be comparable to domestic fees. In Mr. Jensen's experience, domestic dischargers needed more technical assistance and department guidance than industrial sources. Mr. Jensen further commented that the Department should look at the contribution of corporate taxes when considering equity.

Another commenter (2--Bill Nelson, Oregon Winegrowers Association) representing over 100 Oregon winegrowers (about 29 of which have general permits, category 1400--small food processors and wineries) noted that general permittees, in general, and wineries, in particular were being unduly punished because annual compliance determination fees for this group are proposed to be increased from \$100 annually to \$350 annually. Mr. Nelson contends that general permittees should be treated as other categories of permittees, with at most a 100% increase to fees.

**RESPONSE:** (Before beginning a response to equity issues, a discussion of water quality permitting programs is in order.)

***Permitting programs in general.*** The Department operates two water quality permitting programs: the Federal National Pollutant Discharge Elimination System (NPDES) and the State Water Pollution Control Facility (WPCF) program. All facilities or operations with direct discharge to surface waters are governed by the NPDES, and facilities or operations considered non-discharging (i.e discharge to constructed lagoons, use wastewater for irrigation, etc.) fall under the WPCF program.



The Department issues individual NPDES or WPCF permits to domestic, industrial, or agricultural facilities. Individual permits are written specifically for a named facility or operation, and contain effluent limits and monitoring requirements pertinent to that facility. Individual domestic permits regulate wastewater treatment facilities operated by municipalities, sanitary authorities, and sewer districts. Industrial and agricultural operations receive individual permits (in lieu of general permits) when these sources produce high volumes of effluent or high concentrations of pollutants such that they require a frequent compliance monitoring. Individual permits (usually NPDES) are issued to major industrial facilities or agricultural operations (i.e. pulp and paper mills, large volume dairy processors). Individual NPDES or WPCF permits are also issued to minor industrial facilities or agricultural operations (i.e. large food processors, large feed lots).

General NPDES and WPCF permits are issued in a variety of categories. These permits are not written for a specific source, but cover general requirements for the type of operation or discharge characteristics of the permittee. Examples of general permit categories include log ponds, fish processors, wineries, filter backwash, stormwater, vehicle wash water, and process wastewater, among others. Industrial, agricultural, and other (including municipal) facilities may obtain general permits. (Additional discussion is contained in Attachment G.)

***Permitting Activities.*** All permits have basically the same types of activities involving staff time associated with them, as follows:

- processing permit applications and modifications;
- conducting public notification and hearings;
- administering permit appeals;
- monitoring and evaluating compliance with permits;
- conducting inspections;
- securing laboratory analysis of samples taken during inspections;
- reviewing plans and documents directly related to operations of permittees;
- developing load limits for water quality limited streams;
- responding to complaints;
- completing enforcement actions when necessary;

There is also a significant amount of staff time involved with program support that translates into indirect, or program overhead, expenses that are directly related to these activities. Examples include information systems development and maintenance, clerical support, staff training and supervisory activities. Indirect costs are allocated at a rate of about 20%.

Until recently, the water quality permitting program did not have the means to track the staff time and costs associated with servicing an individual or general permit. The Department is installing an automated time accounting system which will allow us to more accurately evaluate costs for service delivery. Meanwhile, the proposed fee revenues are intended to support total program operations and reflect the relative average effort associated with each category of permits.

The general permit workload has dramatically increased since 1990. Fees charged are low when compared to the individual permits. Permit processing, complaint response, site visits and review of monitoring reports from general permittees can average from two hours to 40 hours or more of staff time annually. Using an hourly rate of \$74, this equates to an annual average expense of \$128 to \$2,960 per general permit. (A basis for the \$74 hourly rate and other supporting information is contained in Attachment G.)

***Equity between domestic and industrial fees.*** Fees for domestic (municipal) permits were substantially reviewed, revised and increased in June of 1992. Under this structure, annual compliance determination fees for municipal dischargers are calculated by adding together a scheduled fee, a population fee, and a pretreatment fee (if applicable). The largest municipal facility (Portland, Columbia Blvd) is assessed \$110,244 annually. All municipal/domestic permittees, including very small communities and even smaller private sewage disposal systems, pay a minimum of \$448 per year. Municipal fee revenues provide about 74% of the domestic wastewater permit program operating budget.

By comparison, a major industrial facility, such as Tillamook County Creamery Association--with an NPDES permit and general permit for stormwater--currently pays a \$6000 and \$100, respectively, in annual compliance determination fees. A minor industrial facility, for instance Smith Frozen Foods with a WPCF permit and general permit for stormwater, pays \$1200 and \$100 annually. General permittees, regardless of category, are assessed \$100 per year for compliance determination.

The proposed fee schedule would raise all individual permit fees and general permit processing fees by 100%. General permittees would have their annual compliance fees increased to \$350 per year. While this increase brings industrial fees closer to those paid by domestic permittees, the industrial and general permit holders will still pay substantially less than their domestic counterparts.

***Equity within the general permit structure.*** General permits were introduced into the water quality program in the 1991 rule amendment. The general permit was created for wastewater discharge activities which are believed to have minimal

impacts on water quality. Consequently, the fees associated with general permits are the same for all categories. (Attachment H contains a listing of all general permit categories.)

The number of active general permits for which fees are collected has grown dramatically in recent years, from 475 in 1991 to over 1,800 as of June, 1994. General permits now make up about 88% of the permits for which fees are paid. This large increase is due mainly to the general permit categories that have been added for stormwater. Stormwater permits account for over 60% of the all general permits (1,094 out of 1,805) administered by the Department. Vehicle wash water was also added (167 permits issued). Additionally, some individual permits have been moved to general permit categories.

In response to public testimony, DEQ staff reviewed permit processing fees for general permits. Initial analysis indicates that the current fee structure does not adequately relate the fee charged to the amount of time and effort required to process the application and issue the new permit. For example, categories 900 (seafood processors) and 1000 (gravel mining) are charged the lowest fee for new permits (currently \$50, proposed \$100), yet require the most work in terms of in-house review. Conversely, stormwater permits for textile and apparel manufacturers (category 1200D) require less effort to issue the permit, but are charged the highest fee (currently \$150, proposed \$300).

Staff recommends that new permit processing fees for the following general permit categories be reduced from those proposed in the public comment rule package: 200-filter backwash, and stormwater permits for 1200D-textile and apparel manufacturers, 1200F-food processing, 1200S-sewage treatment plants with flows greater than 1 million gallons per day.

Staff review also determined that wineries and seasonal fresh produce packers required less effort in terms of application processing, monitoring, inspection and compliance than other facilities permitted under category 1400 (i.e. meat packers, canneries, etc.). As a result of our review, staff recommends that general permit category 1400 be divided into subcategories 1400A-wineries and fresh-packs and 1400B-meat packers, canneries, and other food processors. Staff further recommends that the processing fees for 1400A-wineries and fresh-pack facilities be reduced from the proposed level of \$200 to \$100, and annual compliance determination fees reduced from \$350 to \$200. The category 1400B facilities would remain at the proposed processing fee of \$200, with annual compliance determination at \$350.

Staff recommends that further adjustments to general permit fees be made later, after the advisory committee has provided input. Fees for general permits may need modifying to reflect a hierarchy of some sort. The number of general permits has grown dramatically; there may be some activities that have a lesser environmental impact than others within the same or similar group. The general permit category may need to be expanded to include new categories. For example, farms and ranches using groundwater to surfacewater irrigation methods may need coverage by discharge permits.

The Department has not had the opportunity to thoroughly review, revise, and update the general permit structure. This review is now in order. The Department recommends that review and analysis of general permits be added to the list of topics for the advisory committee.

**ISSUE D: No formal advisory committee was used in the development of the rulemaking proposal; the Associated Oregon Industries is not representative of all businesses and industries; will an advisory committee with broad-based representation be formed to review the fee structure?**

Ten commenters (6, 10, 12, 13, 20, 21, 23, 28, 29, 30) expressed concern that no formal advisory committee was used to develop the fee increase rule revision proposal. Others strongly suggested that an advisory committee made up of representatives from all affected industries and businesses should be formed to review not only fee increase, but also the basis for the fee structure. Some stated that, although the AOI was consulted in development of the proposal, the AOI does not represent all Oregon industries and businesses, especially those in Eastern Oregon.

**RESPONSE:** The permit fee structure was developed in 1991 with the involvement of a formal advisory committee. However, in view of the substantial increase in fees and the need to review equity issues, the Department agrees with the commenters that a formal advisory committee should be reestablished. Therefore, the Department commits to the formation of a formal advisory committee, to be charged with reviewing and analyzing all aspects of the industrial water quality permitting program. It is the intent of the Department to have this advisory committee established by fall of 1994.

In addition to the topics mentioned above, some specific issues to be reviewed and resolved by the advisory committee, as presented by the Associated Oregon Industries in their July 18, 1994 letter, are as follows:

- Improving the timeliness of DEQ action on permit issuance and permit modifications

- Developing a process for assuring DEQ proposed permit conditions have a sound cost/environmental benefit basis (e. g. based on evaluating permit requirements for true environmental benefits) recognizing certain statutes and regulations may constrain such assurance in particular circumstances
- Permit writers imposing permit conditions exceeding the requirements of statutes, rules, and regulations (i.e. monitoring requirements; costly, often unneeded studies)
- Reducing uncertainty in the permitting process
- Improving or publicizing DEQ's internal appeals process for staff actions
- Assuring the requirements of ORS 183.545 (review of rules to minimize economic effect on business) and 183.550 (public comment, factors to be considered in review) are met in a manner meaningful to the regulated community
- Examining and improving the equitability of the permit fee structure

**ISSUE E: Surimi processors have been unfairly singled out with the new permit category. What is the justification for the fee?**

**RESPONSE:** Surimi is a manufactured fish product wherein fish meat is squeezed into a tasteless, odorless, paste. It is then shipped elsewhere to be reformed and flavored, usually to resemble crab. The manufacture of surimi produces extremely high levels of BOD (biochemical oxygen demand) in wastewater discharged to the receiving stream. This pollutant is harmful to marine and freshwater organisms. Traditional methods of treatment for fish processing (i.e. filtration) do not adequately remove these high BOD concentrations.

Surimi processors have historically been issued general permit under general category 900 (fish processors). In analyzing these sources, the Department determined that an individual permit would be more appropriate. This decision was made based on the fact that these facilities produce high concentrations of pollutant requiring extensive regulatory monitoring and oversight. Actions are currently in process to place one surimi processor in particular (Arctic Alaska) under an individual permit in category N, facilities not otherwise classified with disposal of process wastewater. The current annual compliance determination fee for this category is \$1,200.

The current fee schedule contains individual permit categories for some seafood processors (crab, shrimp, salmon, etc.), but none specifically for surimi processors. The Department determined that surimi processors should be placed under this category, with fees similar to those charged to salmon/tuna processors. This fee currently is \$1,200 per year for compliance determination. In the proposed rule, this fee would be increased to \$2,400. The Department expects that up to three permittees may be affected by this rule amendment.

**ISSUE F: Confined Animal Feeding Operations (CAFOs) are not affected by this action; the DEQ needs to provide clarifying language in the rule.**

Charles D. Craig, Assistant Administrator, Natural Resources Division of the state of Oregon, Department of Agriculture submitted written testimony asking that more explicit regulatory language be included in the rulemaking proposal to clarify that the fee increases do not affect CAFOs (general permit category 800), as our current rule do seem to reflect this situation. Further, state statutes (in particular, ORS 561.175) preempt the DEQ or any other state agency from increasing fees certain fees to CAFOs.

**RESPONSE:** The Department agrees that OAR 340-45-075 does not accurately reflect fees pertinent to CAFOs. The rulemaking proposal will be amended to include clarifying language, relative to general permit category 800, confined animal feeding operations.

**ISSUE G: What has DEQ done to reduce spending? to improve efficiency? to streamline internal processes?**

Seven commenters (1, 4, 15, 16, 28, 30, 35) recommended that the Department explore ways to effect cost saving measures in lieu of fee increases. Some noted that businesses were forced to improve efficiency, lower costs, and otherwise undertake some belt-tightening to remain competitive and stay in business; DEQ should be asked to do no less.

**RESPONSE:** The Department takes very seriously the directive to become more efficient, while maintaining effectiveness and improving responsiveness.

The DEQ is endeavoring to be as efficient as possible in carrying out regulatory responsibilities and technical assistance activities. As previously mentioned, the Department is in the process of installing an automated time accounting system. Substantial headway has been made in bringing computer automation and telecommunication into the agency, providing for more efficient and effective use of staff and staff time. A recently completed department-wide reorganization has

led to more DEQ presence throughout the state, with less concentration in Portland. Overhead and travel costs have been reduced through the reorganization. Most important, this new structure allows for faster response to issues and better understanding of the community we serve.

**ISSUE H: The costs of regulatory compliance now outweigh public benefit; these fees impose too great an economic hardship on businesses; costs for permits and compliance cannot be passed on to consumers; this action will cause loss of industries and loss of jobs.**

A majority of commenters (3, 4, 7, 8, 10, 14, 15, 17, 18, 19, 22, 23, 24, 25, 26, 27, 28, 29, 31, 35) asserted that the proposed fees, especially for general permits, are far too high and cannot be justified in terms of technical or regulatory costs to the Department. Businesses cannot afford the increases. Market forces and supply/demand considerations precluded the ability to pass increased costs on to consumers. It was suggested that the proposed fees are so high that they could result in extreme economic hardship leading to closure of businesses and loss of jobs. Some commenters noted that DEQ should not increase fees for programs when businesses are already facing cut-backs and layoffs just to stay in business. It was noted that the DEQ fee increase ran contradictory to other state agencies programs to promote economic development initiatives.

**RESPONSE:** The question of what constitutes economic hardship is very complex. There is no question that many businesses, especially some small businesses, are experiencing severe financial problems. These are issues that go beyond the scope of this rule revision, issues that the Department alone cannot resolve.

The Department is charged with the mission to protect and preserve the water quality of the State. This mission is accomplished partly through regulating wastewater discharges. It is the policy of the Department that a reasonable portion of the costs associated with water quality programs be borne by the regulated discharger in the form of fees.

The State's rules provide for reduction or suspension of the annual compliance determination fee if economic hardship is proven (OAR 340-45-070). The financial hardship reduction/suspension requires action by the Environmental Quality Commission. Requests for hardship consideration must be presented for EQC action at a public meeting, and the requester/applicant must provide extensive evidence of hardship. The applicant's costs for gathering the necessary information to prove hardship may exceed the amount of the fee.

As stated previously, the Department is recommending that an advisory committee be formed to review all aspects of the industrial wastewater permitting program, including costs of services, equity between permit categories, and fairness of the fee structure. It is hoped that concerns about economic hardship will be considered as a part of the committee's comprehensive review.



Detailed Changes to Original Rulemaking Proposal made in Response to Public Comment

1. The phrase "which qualify for General Permit 700, and" is added to Section (1)(a) of the proposed rule. as follows:

(a) Small gold mining suction dredges **which qualify for General Permit 700, and** with an intake hose diameter of four inches or less;

2. The phrase "Unless waived by this rule," is added to Section (2) of the proposed rule, as follows:

(2) **Application Processing Fee.**<sup>5</sup> **Unless waived by this rule,** [A]an application processing fee shall be submitted with each application. The amount of the fee shall depend on the type of facility and the required action as follows:

3. Section (2)(h) of the proposed rule is revised to shift general permit categories 200-filter backwash, and stormwater permits 1200D-textile manufacturing, 1200S-sewage treatment plants, and 1200F-food processing to a reduced fee. Changes also reflect the subdivision of category 1400 to categories 1400A-wineries and fresh-pack and 1400B-meat packing, canneries, and other produce processing. Category 1700-vehicle wash water is added to the rule. Revisions are as follows:

(h) New General Permits, by permit number:

(A)	100, <del>200</del> , 400, 500, 600 (over 1,500 cubic yards per year), 900, 1000, <del>1200D, 1200S, 1400A</del>	<u>\$ 100</u>	<del>[\$—50]</del>
(B)	<del>[200,]</del> 300, <del>1200F</del> , 1300, 1400 <del>B</del> , 1500, 1600	<u>\$ 200</u>	<del>[\$—100]</del>
(C)	<u>All other</u> 1200, 1700	<u>\$ 300</u>	<del>[\$—150]</del>
(D)	Others not elsewhere specified	<u>\$ 300</u>	<del>[\$—150]</del>

4. Section (2)(j) is added to the proposed rule, as follows:

(j) **Application processing fees described in 2(h) and (i) above are waived for specific categories as follows:**

(A) **Small gold mining operations which qualify for General Permit 600, and which can process no more than five cubic yards of material per day, or more that five cubic yards of material per day but less than 1,500 cubic yards of material per year.**

**(B) Small gold mining suction dredges which qualify for General Permit 700.**

5. Section (4)(b)(R) of the proposed rule is revised to include a reduced fee for general category 1400A-wineries and fresh-pack, and to clarify that fees are waived for general permit categories 600 (placer mining) and 700 (suction dredges), as follows:

(R) General permits, **as listed under section 2(h)(A) through 2(h)(D) of this rule, except as follows:**                                 \$ 350     ~~[\$100]~~

(i) **1400A**   \$ 200

(ii) **Annual compliance determination fees are waived for gold mining activities which qualify for General Permit Categories 600 and 700.**

6. The following footnote paragraphs are added at the end of the proposed rule:

<sup>5</sup> *Confined Animal Feeding Operations:*

OAR 340-45-075, Sections (2), (3), and (4) do not apply to General Permit 800, confined animal feeding operations, administered by the Oregon Department of Agricultural.

<sup>6</sup> *On-site Sewage Disposal Systems:*

Fees for on-site sewage disposal systems, including those requiring WPCF permits, are found in Division 71 of Chapter 340.

Discussion of Water Quality Permit Fees and Revenues

Of the total of approximately 2,900 permits issued, the Department receives fees for approximately 2,043. The remainder are either Confined Animal Feeding Operation general permits administered by the Department of Agriculture, or small placer or suction dredge mineral mining operations for which the Department issues a general permit but does not collect any fees. (By rule, no filing fees are required for general permits issued for mining operations using a dredge suction hose with an inside diameter of 4 inches or less. Filing fees are also waived for off-stream small mining operations with general permits that process less than 5 cubic yards of material per day.)

Distribution of Individual and General Permits that Pay Fees		
Type of Permit:	Number	%
Individual	238	12
General	1,805	88
<b>TOTAL</b>	<b>2,043</b>	<b>100</b>

Under the proposed fee structure, individual permits will provide about 56% of the fee revenue, and the general permit fees will provide about 44%. The proposed fee schedule will result in application and renewal fees providing slightly less than 25% of the fee revenue, and annual compliance determination fees just over 75% of the fee revenue, for both individual and general permits. Although increases in permit application fees should be part of the permit fee schedule, most of the increase in revenue should come from the compliance determination fees since the majority of staff time is spent on compliance determination. The permit processing fees are not a consistent and reliable source of revenue since the permit renewals vary from year to year and new source applications cannot be predicted with certainty.

Analysis of Estimated Revenue by Type of Permit (in 000s)				
Type of Permit	file/proc fees	ACD fees	Total	%
Individual	\$250.8	\$784.0	\$1,034.8	56
General	\$197.0	\$625.3	\$822.3	44
<b>TOTAL</b>	<b>\$447.8</b>	<b>\$1,409.3</b>	<b>\$1,857.1</b>	<b>100</b>
<b>%</b>	<b>24</b>	<b>76</b>	<b>100</b>	

(A detailed analysis of estimated revenues from fees is contained in Attachment J.)

Examples: Impact of Proposed fee increases on permits and revenues.

General Permits

Fees are subdivided into three parts: filing fees, processing fees, and annual compliance determination fees. Under the proposed rule revision, a general permittee can expect to pay the following fees:

1. Filing fee of \$50. This fee applies to all permit transactions (new, renewals, and modifications) and is unaffected by the fee increase.
2. Processing fees for new general permit fees will be increased by 100%. Current fees range between \$50 and \$150, depending on the permit category. The proposed rule revision would raise these fees to between \$100 and \$300.
3. Annual Compliance Determination fees (ACDF) for general permits will be increased from \$100 to \$350 under the proposed rule revision.

Thus, an applicant for a new general permit (for instance, category 1400, small food processors and wineries) would pay the following fees under the proposed fee structure:

Filing Fee:	\$50.00
Processing Fee:	\$200.00
ACDF:	\$350.00
Total:	\$600.00

Currently, a general permit holder pays only the ACD fee (now \$100 per year, proposed to be increased to \$350 per year). There is no cost for permit renewal. The proposed rule revision would set a new fee for general permit renewal at \$100 for all categories. General permit categories come up for renewal every five years. Under the proposed rule revision, at renewal time the permittee would pay the \$50.00 filing fee and the \$100 renewal fee, and probably the ACDF (\$350), if it is due.

*Stormwater Permits*

Stormwater NPDES permits are the largest category of general permits and the Department has 5 staff that are assigned to work full-time on these permits. This allows for a basic analysis of the relative cost of this part of the program versus the proposed general permit annual compliance fee.

Estimated Annual Cost to Administer Stormwater Permits	
Positions	5
Working hours per position per year (average)	1,824
Total Hrs available per year	9,120
Annual Program Cost (at \$74 per hour <sup>1</sup> )	\$674,880

Proposed Revenue from Stormwater Permits		
NO.	Category	Number of Permits
12A	Sand & gravel	73
12C	Construction disturbing > 5 acre	209
12CA	Municipal construction	18
12D	Textile & apparel manufacturing	4
12F	Food processing	58
12G	Landfills	34
12H	Heavy industrial activities	108
12L	Light manufacturing activities	116
12M	Mineral, oil, gas extraction	0
12P	Pulp and paper	19
12R	Salvage yards	23
12S	Sewage treatment plants > 1 MGD	31
12T	Transportation facilities	179
12W	Wood products	222
	<b>TOTAL</b>	<b>1,094</b>
	Revenue from current \$100 Annual Compliance Determination Fee (1,094 x \$100)	\$109,400
	Percent of estimated costs recovered by current fee	16%
	Revenue from proposed \$350 Annual Compliance Determination Fee (1,094 x \$350)	\$382,900
	Percent of estimated costs recovered by proposed fee	57

(The above table demonstrates that the stormwater NPDES general permit activities will come close to being 60% supported by fees under the proposed fee structure.)

## Individual Permits

New applications for a major source permit require extensive staff time to issue the permit. (Attachment I lists the 24 major permits that are active.) It is estimated that the proposed \$40,000 application processing fee will cover 72% of the associated cost of issuance.

### Processing a Complex New Application for a Major Source

Estimated average hours <sup>2</sup> :	747
Hourly estimated expense:	\$74
	-----
Estimated cost:	\$55,278
	-----
Proposed application fee:	\$40,000
% of estimated cost:	72%

Applications for minor source permits require comparatively less staff time. It is estimated that the proposed application processing fee of \$8,000 will cover 70% of the associated cost of issuance.

### Processing a New Individual Permit Application for a Minor Source

Estimated average hours <sup>2</sup> :	154
Hourly estimated expense:	\$74
	-----
Estimated cost:	\$11,396
	-----
Proposed application fee:	\$8,000
% of estimated cost:	70%

<sup>1</sup> The estimated hourly rate of \$74 is based on information used in the Waste Management and Cleanup Division to recover the costs of its services in cleanup programs. It includes salary and overhead costs. Since these cleanup programs are required by statute to recover actual costs of services, the hourly rates are likely to be comparable to those necessary to fully support the water quality industrial permitting program. The cleanup program cost recovery structure was developed with the assistance of the accounting firm Coopers & Lybrand, and includes clerical, technical guidance, policy development, records management, program management that are directly attributable to project work, but are not site-specific.

<sup>2</sup> The time estimates are based on the analysis conducted on individual permit issuance by the Department in 1991. The amount of time involved in permit issuance is judged to be the about same as determined in this analysis. This analysis is available upon request.

**DEQ GENERAL PERMITS**

Permit Code	Permit Type	Description
0100	GEN01	Cooling Water/Heat Pumps
0200	GEN02	Filter Backwash
0300	GEN03	Fish Hatcheries
0400	GEN04	Log Ponds
0500	GEN05	Boiler Blowdown
0600	GEN06	Placer Mining
0700	GEN07	Suction Dredges
0800	GEN08	Confined Animal Feeding Operations
0900	GEN09	Seafood Processing
1000	GEN10	Gravel Mining
<b>STORM WATER PERMITS</b>		
1201	GEN12A	Sand, gravel and other non-metallic quarrying and mining operations in SIC 14.
1202	GEN12C	Construction activities which disturb 5 acres or more.
1203	GEN12CA	Municipal entities which are responsible for construction activities which disturb 5 acres or more, such as highway construction or sewer construction
1204	GEN12D	Textile and apparel manufacturing facilities under SIC 22 and 23, printing under SIC 27, and warehousing facilities under SIC 4221-25.
1205	GEN12F	Food processing facilities under SIC 20.
1206	GEN12G	Landfills, land application sites, and waste residual disposal sites.

1207	GEN12H	Heavy industrial activities associated with SIC 28, 29, 30, 31, 32 and 33, including chemical manufacturing, petroleum and concrete products, and primary metals industry. Also steam electric power generating facilities including coal and hogged fuel handling sites.
1208	GEN12L	Light manufacturing industrial activities associated with SIC 34, 35, 36, 37, 38 and 39, including fabricated metal products, equipment manufacturing, and ship and boat building and repair activities.
1209	GEN12M	Mineral extraction operations associated with SIC 10, 12 and 13, including metal mining, coal mining, and oil and gas extraction.
1210	GEN12P	Pulp and paper facilities under SIC 26.
1211	GEN12R	Metal scrap yards, battery reclaimers and salvage yards classified under SIC 5015 and 5093; automobile wrecking yards; hazardous waste treatment, storage and disposal facilities.
1212	GEN12S	Sewage treatment plants with a design flow of 1 million gallons per day or more and those requiring a pre-treatment program.
1213	GEN12T	Transportation facilities in SIC 40, 41, 42, 43, 44, 45 and 5171. Includes railroad transportation, bus and taxi operations, motor freight and courier services, Postal Service, water transportation, air transportation and wholesale bulk petroleum facilities.
1214	GEN12W	Wood products manufacturing included in SIC 24 and 25, including dry kilns, log decks, wood waste landfills, chip and hogged fuel storage, surface treatment with anti-stain chemicals, truck and equipment repair, power generation and other associated activities.
1300	GEN13	Oily storm water runoff
1400	GEN14	Seasonal food processing and wineries
1500	GEN15	Petroleum hydrocarbons cleanup
1600	GEN16	Small froth-flotation mineral extraction
1700	GEN17	Vehicle wash water

NPDES = National Pollutant Discharge Elimination System (allows discharge to surface waters)

WPCF = Water Pollution Control Facility (does not allow discharge to surface waters)



Facility	Legal Name	City	County	Reg	P-Type	Cat	Class	Fee SIC	Code
15810/B	DEE FOREST PRODUCTS, INC.	HOOD RIVER	HOOD RIVER	ER	NPDES	IND	MAJOR	2499	IW-A
21328/A	JAMES RIVER II, INC.	CLATSKANIE	CLATSOP	NWR	NPDES	IND	MAJOR	2611	IW-A
21489/B	SIMPSON PAPER COMPANY	WEST LINN	CLACKAMAS	NWR	NPDES	IND	MAJOR	2611	IW-A
28476/A	EVANITE FIBER CORPORATION	CORVALLIS	BENTON	WR	NPDES	IND	MAJOR	2499	IW-A
32947/A	GEORGIA-PACIFIC CORPORATION	TOLEDO	LINCOLN	WR	NPDES	IND	MAJOR	2611	IW-A
36335/A	POPE & TALBOT, INC.	HALSEY	LINN	WR	NPDES	IND	MAJOR	2611	IW-A
36535/C	GLENBROOK NICKEL COMPANY	RIDDLE	DOUGLAS	WR	NPDES	IND	MAJOR	1061	IW-L
42188/A	INTERNATIONAL PAPER COMPANY	GARDINER	DOUGLAS	WR	NPDES	IND	MAJOR	2611	IW-A
53166/A	NORTHWEST ALUMINUM COMPANY	THE DALLES	WASCO	ER	NPDES	IND	MAJOR	3334	IW-E
63810/A	ORE-IDA FOODS, INC.	ONTARIO	MALHEUR	ER	NPDES	IND	MAJOR	2037	IW-B
64300/A	OREGON METALLURGICAL CORPORATION	ALBANY	LINN	WR	NPDES	IND	MAJOR	3339	IW-G
68471/A	ELF ATOCHEM NORTH AMERICA, INC.	PORTLAND	MULTNOMAH	NWR	NPDES	IND	MAJOR	2812	IW-H
70825/A	PORTLAND GENERAL ELECTRIC COMPANY	RAINIER	COLUMBIA	NWR	NPDES	IND	MAJOR	4911	IW-J
72615/A	SMURFIT NEWSPRINT CORPORATION	NEWBERG	YAMHILL	WR	NPDES	IND	MAJOR	2621	IW-A
72634/A	SMURFIT NEWSPRINT CORPORATION	OREGON CITY	CLACKAMAS	NWR	NPDES	IND	MAJOR	2611	IW-A
74470/B	CHEVRON CHEMICAL COMPANY	ST HELENS	COLUMBIA	NWR	NPDES	IND	MAJOR	2873	IW-H
74860/A	REYNOLDS METALS COMPANY	TROUTDALE	MULTNOMAH	NWR	NPDES	IND	MAJOR	3334	IW-E
87645/A	TELEDYNE INDUSTRIES, INC.	ALBANY	LINN	WR	NPDES	IND	MAJOR	3339	IW-F
88729/A	TILLAMOOK COUNTY CREAMERY ASSOCIATION	TILLAMOOK	TILLAMOOK	NWR	NPDES	IND	MAJOR	2022	IW-K
96207/A	WEYERHAEUSER COMPANY	KLAMATH FALLS	KLAMATH	ER	NPDES	IND	MAJOR	2499	IW-A
96244/A	WEYERHAEUSER COMPANY	SPRINGFIELD	LANE	WR	NPDES	IND	MAJOR	2611	IW-A
96255/A	WEYERHAEUSER COMPANY	NORTH BEND	COOS	WR	NPDES	IND	MAJOR	2611	IW-A
97042/A	WILLAMETTE INDUSTRIES, INC.	MILLERSBURG	LINN	WR	NPDES	IND	MAJOR	2611	IW-A
105814/A	JAMES RIVER PAPER COMPANY, INC.	HALSEY	LINN	WR	NPDES	IND	MAJOR	2621	IW-A

SQL>  
24 Sources (Major Industrial)

## Proposed Industrial Fee Revisions: Revenue Analysis

Fee Category	# Permits	Current Fees	Proposed Fees	Projected Revenue
Filing Fees	915	\$50	\$50	\$45,750
<b>Processing Fees</b>				
Major Industrial: New	0	\$20,000	\$40,000	\$0
Major Ind: Ren w/mod	1	\$10,000	\$20,000	\$20,000
Major Ind: Ren w/o mod	4	\$5,000	\$10,000	\$40,000
Major Ind: Mod w/inc lmts	0	\$10,000	\$20,000	\$0
Minor Ind: New	13	\$4,000	\$8,000	\$104,000
Minor Ind: Ren w/mod	2	\$2,000	\$4,000	\$8,000
Minor Ind: Ren w/o mod	35	\$750	\$1,500	\$52,500
Minor Ind: Mod w/inc lmts	3	\$2,000	\$4,000	\$12,000
Agricultural: New	0	\$4,000	\$8,000	\$0
Agricultural: Ren w/mod	0	\$2,000	\$4,000	\$0
Agricultural: Ren w/o mod	2	\$750	\$1,500	\$3,000
Agricultural: Mod w/inc lmts	0	\$2,000	\$4,000	\$0
Mod w/o inc lmts	15	\$500	\$500	\$7,500
General Permits: A	96	\$50	\$100	\$9,600
General Permits: B	58	\$100	\$200	\$11,600
General Permits: C	326	\$150	\$300	\$97,800
General Permits: D	0	\$150	\$300	\$0
*General Permits: Ren	360	\$0	\$100	\$36,000
Add ons to GP:				
Disposal Plan Review	0	\$200	\$400	\$0
Site Inspection	0	\$500	\$1,000	\$0
<b>SUBTOTAL Filing and Processing</b>				<b>\$447,750</b>
<b>ACD Fees</b>				
A: Pulp and Paper	15	\$8,000	\$12,000	\$180,000
B: Food Processors	7	\$6,000	\$12,000	\$84,000
C1: SF/shellfish	0	\$675	\$1,350	\$0
C2: SF/shrimp	0	\$675	\$1,350	\$0
C3: SF/salmon-tuna	0	\$1,200	\$2,400	\$0
*C4: SF/surimi	3	\$0	\$2,400	\$7,200
D1: Electroplater >15k amps	0	\$6,000	\$12,000	\$0
D2: Electroplater >5k<15k amps	0	\$3,000	\$6,000	\$0
E: Primary Al Smelting	2	\$6,000	\$12,000	\$24,000
F: Primary Smelting (Non-Fe)	1	\$6,000	\$12,000	\$12,000
G: Primary Smelting (Fe)	2	\$3,000	\$6,000	\$12,000
H: Chem Manufacturers	2	\$6,000	\$12,000	\$24,000
I: Petro Refining >15k bpd	0	\$6,000	\$12,000	\$0
J: Cooling Water >20k BTU	3	\$3,000	\$6,000	\$18,000
K: Milk Prod >250k lbs	1	\$6,000	\$12,000	\$12,000
L: Major Mining >500k yds <sup>3</sup>	2	\$6,000	\$12,000	\$24,000
M1: Mining 100-500k yds <sup>3</sup>	1	\$2,000	\$4,000	\$4,000
M2: Md Mining w/froth	2	\$3,000	\$6,000	\$12,000
M3: Md Mining w/leaching	0	\$4,000	\$8,000	\$0
M4: Sm Mining <100k yds <sup>3</sup>	15	\$500	\$1,000	\$15,000
M5: Small w/froth	0	\$1,000	\$2,000	\$0
M6: Small w/leaching	0	\$2,000	\$4,000	\$0
N: NEC w/ process ww	107	\$1,200	\$2,400	\$256,800
O: NEC w/non-process	60	\$750	\$1,500	\$90,000
P: Dairies and others (AG-A)	9	\$450	\$900	\$8,100
Q: Evaporation Ponds	9	\$450	\$900	\$8,100
R: General Permits (except 1400A)	1,766	\$100	\$350	\$618,100
R(i): GEN 1400A	36	\$100	\$200	\$7,200
<b>SUBTOTAL permits/ACD Fee rev</b>	<b>2,043</b>			<b>\$1,409,300</b>
<b>TOTAL Est Annual Fee Revenue</b>				<b>\$1,857,050</b>

\*New individual permit category

Comparison of Oregon and Washington State Fees for Wastewater Discharge

The Washington State Department of Ecology (DOE) has adopted a fee schedule for its permitting program. State statutes require full recovery of the program administration costs "based on expenses incurred in the issuance and comprehensive administration of state waste discharge and NPDES permits". Under this 100% fee-recovery approach, businesses in Washington pay significantly higher permit fees in most cases than a comparable Oregon business would pay even under the increased fee schedule proposed for Oregon.

A fee comparison between the two states is outlined below. Although the Washington fee categories and collection process does not mirror Oregon's, it is close enough that direct comparisons can be made.

Washington's fee schedule is based on annual permit fees. The schedule includes 44 categories of industrial facilities, with 186 subcategories of annual permit fees. Annual permit fees range from \$102 for an oyster shucking operation to \$89,637 for chemical pulp mills with chlorine bleaching. The permit fee subcategories are generally based on wastewater volume in gallons per day. Washington's schedule includes a one-time application fee of 25% of the annual permit fee, or \$250, whichever is greater. Facilities covered by general permits pay an annual permit fee equal to 70% of the fee subcategory pertinent to their facility.

By contrast, the Oregon schedule in the proposed rule lists 20 categories of industrial permits, with 56 fee-related subcategories, and includes fees for application filing, processing (for new, renewals, or modifications), and annual compliance determination. The industrial categories are generally based on SIC (standard industrial classification) codes and the characteristics of the individual facilities. Separate fee schedules are established for general permits.

Oregon has developed the use of general permits to a greater extent than Washington. Oregon has 16 categories of general permits (and 14 subcategories of stormwater permits) versus 6 categories of general permits in Washington. Many of the facilities in Oregon that hold a general permit would be regulated under an individual permit if they were located in Washington state. The broader use of general permits in Oregon partially accounts for the comparatively fewer number of industrial categories.

The following tables provide comparisons of the permit costs related to selected types of businesses.

1) **Seafood Processing -**

A. **General permits**

*Oregon* - Fees for general permit category 900 (seafood processing) are proposed to be \$350 for application filing and processing, plus the \$350 annual compliance determination fee. A fee of \$150 for filing and processing is due at the time of permit renewal.

*Washington* - There is a seafood processing permit category. There is not a general permit for this activity. The annual permit fee starts at \$996 for dischargers of less than 1,000 gallons per day (gpd) and increases stepwise for larger dischargers (to \$9,960 for over 100,000 gallons per day). The initial permit application and processing fee for the lowest category is \$249 (25% of the annual fee).

The following table shows a 5-year summary/comparison, with permit written in year 1 and Oregon permit renewal in year 5. The example assumes a Washington permit with discharge less than 1,000 gallons per day.

	Oregon	Washington
Year 1	\$700.00	\$1,245.00
Year 2	350.00	996.00
Year 3	350.00	996.00
Year 4	350.00	996.00
Year 5	500.00	996.00
<b>TOTAL</b>	<b>\$2,250.00</b>	<b>\$5,229.00</b>
Oregon fees as a % of Washington fees for small seafood processors:		43%

**B. Individual permits**

Some seafood processors in Oregon are, or will be, regulated with individual permits. These processors are considered "minor industries" for purposes of fee determination. The fees are \$50 filing, \$8,000 application processing for a new permit, \$1,350 - \$2,400 annual compliance determination, and \$1,500 for renewal without request for effluent limit modification. (The renewal fee is \$4,000 if there is a request for an increase in effluent limits.)

The following table shows a 5-year summary/comparison, with permit written in year 1 and Oregon permit renewal in year 5. The example assumes an Oregon permit with the highest annual compliance fee for a seafood processor, and a Washington permit for greater than 100,000 gallons per day.

	Oregon	Washington
Year 1	\$10,450.00	\$12,450.00
Year 2	2,400.00	9,960.00
Year 3	2,400.00	9,960.00
Year 4	2,400.00	9,960.00
Year 5	3,900.00	9,960.00
<b>TOTAL</b>	<b>\$21,550.00</b>	<b>\$52,290.00</b>
Oregon fees as a % of Washington fees for this example:		41%

**2) Wineries -**

**A. General permit**

*Oregon* - The general permit fee is proposed to be \$250 for application filing and processing, plus a \$200 annual compliance determination fee. There is a combined fee of \$150 for filing and processing at time of permit renewal.

*Washington* - The annual permit fee starts at \$204 for discharges of less than 500 gallons per day and increases stepwise for larger discharges to \$3,566 for over 5,000 gallons per day.

The following table shows a 5-year summary/comparison, with permit acquired in year 1 and Oregon permit renewal in year 5. A Washington annual permit fee of \$29,879 is used for a permittee with a 5 million or greater gallon per day operation.

	Oregon	Washington
Year 1	\$52,050.00	\$37,348.75
Year 2	12,000.00	29,879.00
Year 3	12,000.00	29,879.00
Year 4	12,000.00	29,879.00
Year 5	22,050.00	29,879.00
<b>TOTAL</b>	<b>\$110,100.00</b>	<b>\$156,864.75</b>
Oregon fees as a % of Washington fees for this example:		70%

The Department has issued an NPDES permit to only one source that would be considered "major industry" food processor. All other food processors with individual permits fall into the "minor industry" category with the following, relatively lower, proposed fees:

New permit filing and application fee: \$8,050.  
 Annual compliance determination fees: \$900 - \$12,000  
 Renewal fees: \$1,500 (no mod) or \$4,000 (w/mod)

The following example is for a "minor industry" food processor. Under Oregon's schedule, the permittee would be issued an individual permit, with an annual compliance fee of \$2,400 and a renewal fee of \$4,000 (assuming that the renewal application includes a request for modification to effluent limits) for an Oregon individual permit. For comparison, a similar Washington permittee would be assessed an annual permit fee of \$24,401, assuming that the permittee discharges 1 to 2.5 million gallon per day.

	Oregon	Washington
Year 1	\$10,450.00	\$30,501.25
Year 2	2,400.00	24,401.00
Year 3	2,400.00	24,401.00
Year 4	2,400.00	24,401.00
Year 5	6,450.00	24,401.00
<b>TOTAL</b>	<b>\$24,100</b>	<b>\$128,105.25</b>
Oregon fees as a % of Washington fees for this example:		19%

The following table shows a 5-year summary/comparison, with permit acquired in year 1 and Oregon permit renewal in year 5, and a Washington permit based on greater than 700 gpd and less than 1,000 gallons per day.

	Oregon	Washington
Year 1	\$450.00	\$1,018.75
Year 2	200.00	815.00
Year 3	200.00	815.00
Year 4	200.00	815.00
Year 5	350.00	815.00
<b>TOTAL</b>	<b>\$1,400</b>	<b>\$4,278.75</b>
Oregon fees as a % of Washington fees:		33%

3) **Food processing - individual permit for a major source:**

*Oregon* - The individual permit fees for a major industrial permit are proposed to be \$40,050 for filing and application processing for a new permit, plus a \$12,000 annual compliance determination fee. Every five years, the permittee pays a filing and renewal fee totaling \$10,050 for renewal with no changes in effluent limits, or \$20,050 if the renewal includes a request for an increase in effluent limitations.

*Washington* - The annual permit fee starts at \$996 for discharges of less than 1,000 gallons per day and increases stepwise for larger discharges to \$29,879 for greater than 5,000,000 gallons per day. Initial permit application fee is 25% of the annual permit fee.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for

**REVISION OF WATER QUALITY PERMIT FEE SCHEDULE FOR INDUSTRIAL  
AND AGRICULTURAL WASTEWATER FACILITIES PERMITTEES**

## Rule Implementation Plan

### Summary of the Proposed Rule

On May 10, 1994, the Director authorized the Water Quality Division to proceed to a rulemaking hearing on proposed rule amendments which would increase water quality permit fees for industrial and agricultural facilities regulated through individual permits, and activities covered by general permits. The purpose of this proposal is to raise the revenues necessary to finance the Department of Environmental Quality's industrial wastewater permit program in the next biennium. The proposed rule amendments do not change any regulations concerning who needs a permit, or the conditions contained in the permits themselves.

The Department is proposing to amend portions of Oregon Administrative Rules (OAR) Chapter 340, Division 45, Section 070, Permit Fee Schedule, to increase permit processing and annual compliance determination fees for individual industrial and agricultural permits, and general permits. The rule amendments are needed for these reasons: to increase fee revenue support to 60% of the total program budget, for closer alignment with other comparable permitting programs; to replace a substantial portion of the federal funds usually obligated to the industrial wastewater permitting program so that these funds may be redistributed more equitably across all water quality programs; and to replace about \$600,000 of State general funds in keeping with the Governor's directive to reduce general funds from program budgets.

Several "housekeeping" amendments are also proposed. Text would be added so that this rule is consistent with a separate rule amendment to OAR, Chapter 340, Division 71 (On-site sewage treatment and disposal). Other proposed text additions would clarify the applicability of fees to confined animal feeding operations in general permit category 800. These facilities are overseen by the State Department of Agriculture, and fees are limited by ORS 561.175. Finally, text will be added to pertinent sections of the rule to clarify the status of general permit categories 600 (placer mining operations) and 700 (suction dredges). These categories are exempt from all or some of the permit fees, depending on the capacity of the mining operation.



### **Proposed Effective Date of the Rule**

If adopted by the EQC, the revised fee schedule will become effective upon filing of the adopted rule with the Secretary of State.

### **Proposal for Notification of Affected Persons**

Upon adoption of the rule amendments, all those who provided public testimony will be notified of the rulemaking action. Applicants for new permits will receive the revised permit fee schedule upon application. All active permittees will be notified by mail in conjunction with the regular billing cycle for annual compliance determination fees.

### **Proposed Implementing Actions**

The additional revenue from the proposed fee schedule is needed to support the water quality permitting program budget in the 1995-97 biennium. A draft budget is being prepared for consideration by the Governor and subsequent recommendation to the 1995 Legislature. Revenue from these fees will be used to support the budget as recommended by the Governor and approved by the Legislature next year.

If adopted by the EQC, the revised fee schedule will become effective upon filing of the adopted rule with the Secretary of State. The new fees would be immediately applied to all new permit applications, modifications and renewals.

Annual compliance determination fees are invoiced on a fiscal year basis (July 1 - June 30). These fees have already been invoiced to active permittees at the current amounts for this fiscal year (1995). Although effective upon filing with the Secretary of State, the revised ACD fees will not be invoiced until the next regular billing cycle, in summer 1995 for fiscal year 1996.


### **Proposed Training/Assistance Actions**

This is not a new rule. No changes are proposed that would impact who receives permits, how permit language is presented, or conditions for permit issuance. Department staff will be notified of the revised rule requirements upon adoption by the Commission.

State of Oregon  
Department of Environmental Quality

Memorandum<sup>†</sup>

Date: September 19, 1994

To: Environmental Quality Commission  
From: Fred Hansen, Director   
Subject: Agenda Item D, September 22, 1994, EQC Meeting: Update On the Three Basin Rule Review

**Purpose**

The purpose of this informational item is to advise the Commission on current and expected progress on a permanent revision to OAR 340-41-470(1), the three basin rule.

**Authority of the Commission with Respect to the Issue**

Oregon Revised Statutes (ORS) 468.020 authorizes the Commission to adopt rules and standards as considered necessary to perform its statutory functions. ORS 468B.035 authorizes the Commission to adopt rules as needed to carry out provisions of the Federal Water Pollution Control Act (Clean Water Act) and federal regulations and guidelines issued pursuant to the Act. The Commission may adopt, modify or repeal rules, pursuant to ORS 183.310 to 183.550, for the administration and implementation of the Act.

**Background**

At the January 28, 1994 EQC meeting, the Commission adopted an interim revision to OAR 340-41-470(1), the three basin rule, and directed the Department to begin formal review of the permanent rule. The Commission specified a process for the Department to follow in reviewing the rule; directing the Department to establish a public advisory committee to facilitate input from local and statewide interests with a stake in the basins. Based on recommendations from the Advisory Committee, the Department was to advise the Commission at a special meeting in September, 1994, on whether, and how, the three basin rule should be permanently revised. Pursuant to direction provided at the September Commission meeting, the Commission foresaw that the Department might proceed to rulemaking, following normal public involvement procedures, which include public notice, a public comment period, and a public hearing. Adoption of any permanent rule amendments was anticipated in January, 1995.

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

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### **Advisory Committee Progress**

A public advisory committee of 24 persons (Attachment A) was established in March, 1994. The Advisory Committee met monthly through September, with two meetings in August. A Committee update and a recommendation regarding the interim rule were provided to the Commission prior to its June 3, 1994 meeting.

Since June, no formal recommendations have resulted from the Advisory Committee discussions. However, the Department believes that Committee members were close to agreement at the September meeting, and that consensus recommendations could likely be produced if more time were allowed. A regulatory framework was discussed by the Committee, but agreement on specific details was not reached. We will brief the Commission on the elements of this framework at the September 22nd meeting.

### **Input from the Public to the Advisory Committee**

Public involvement during the Advisory Committee phase of the rule review was encouraged in several ways:

- Two mailing lists were established. Persons on one list received notice of each upcoming meeting, plus notes from the previous month's meeting. Persons who requested to be placed on the other list received the entire Agenda Packet sent to Advisory Committee members. All told, about 350 persons were notified of the monthly meetings;
- Names, affiliations, addresses and/or phone numbers for Committee members were sent to persons on the mailing lists. The independent citizen on the Committee summarized phone calls she received and reported them to the Committee;

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- Interested persons were invited to write to the Committee, c/o the Department, and copies of all letters and postcards were distributed to the Committee. The content of these letters and postcards is summarized in Attachment B, and the original correspondances are available for Commission review;
- A public comment period of approximately fifteen minutes was provided at each Advisory Committee meeting. Summaries of public viewpoints expressed at each meeting are enclosed as Attachment C.

### **Intended Future Actions**

The Department will work with representatives from the principal interests on the Advisory Committee to work out details of proposed rule language. When a recommendation from this group is available, the full Advisory Committee will be asked to reconvene to provide additional input and a formal recommendation to the Department. In consideration of the Advisory Committee's recommendation, the Department will propose permanent rule language, and follow appropriate rule-making procedures to obtain further public input. Rule adoption is anticipated for the January 1995 Commission meeting, or at a possible special meeting in February.

### **Department Recommendation**

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department as appropriate.

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**Attachments**

- A. List of Advisory Committee members
- B. Summary of letters and postcards sent to the Advisory Committee by interested persons
- C. Summary of viewpoints expressed at Advisory Committee meetings

**Reference Documents (available upon request)**

Original letters and postcards from the public to the Advisory Committee

Approved:

Section:

Thomas J. Lucas

Division:

Michael Downs

Report Prepared By: Lynne Kennedy

Phone: (503) 229-5371

Date Prepared: September 19, 1994

FH:LK:crw  
MW\WC12\WC12924.5

**ATTACHMENT A: List of Members, Three Basin Rule Advisory Committee**

Committee Chairman

1. Joe Richards, Attorney and former Environmental Quality Commission chairman

A. Commercial Interests

2. Associated Oregon Industries - Keith Euhus
3. North Santiam Chamber of Commerce - John Hall
4. Eugene - Springfield Metro Partnership - John Lively
5. Oregon Forest Industries Council - Ward Armstrong
6. Homebuilder's Association of Portland - Drake Butsch
7. Kinross and Other Mining Interests - Chuck Bennett

B. Counties and other Organizations

8. Marion County - Mary Pearmine
9. Lane County - Roy Burns
10. Clackamas County - Dan Helmick
11. Association of Clean Water Agencies - Cathryn Collis
12. League of Oregon Cities - Joni Low

C. Water Suppliers/Cities

13. Salem - Frank Mauldin
14. Eugene Water and Electric Board - Laurie Power
15. South Fork Water Board - Larry Sparling
16. Springfield Utility Board - Ken Cerotsky
17. Stayton - Craig Johns
18. Estacada - Bill Strawn

D. Environmental Organizations

19. Sierra Club - Elizabeth Frenkel
20. Northwest Environmental Defense Center - Bart Brush
21. Oregon Trout - David Moskowitz
22. Pacific Rivers Council - Megan Smith
23. Northwest Environmental Advocates - Nina Bell

E. Independent Citizen

24. Martha Schrader

**ATTACHMENT B: Summary of Letters and Postcards Sent to the Advisory Committee by Interested Persons\***

5/26/94. Mrs. James R. Alderson, Salem. Urges that the original rule not be amended to allow more discharges. Drinking water quality is too important to give up.

5/26/94. Mr. John M. Taylor, Salem. Drinking water problems are being discovered around the nation, resulting in high cleanup costs. Don't gamble away Salem's high quality water to permit a mine that may have an accident.

5/26/94. Ms. Joan Lanke, Salem. Sixty-five jobs are not worth potential contamination of three cities' drinking water. My health is not a good trade for the big bucks others will earn from a mine.

5/26/94. Mr. John Trammell, Salem. Keep Salem's drinking water pure for future generations. Don't allow commercial interests to overrule public welfare by relaxing the rule.

5/26/94. Mr. Lee O. Gibbs, Salem. Do not permit a mine above Salem's drinking water intakes. Do not relax the rule.

5/26/94. Mr. Norman L. Espe, Salem. Do not permit a mine above Salem's drinking water intakes. Do not relax the rule. (Copy of above letter--different signature.)

5/26/94. Ms. Judy Young, Salem. This is a difficult issue: balancing the need for jobs in the Canyon against Salem's drinking water. I vote that DEQ should permit the mine, but make sure there are adequate safeguards to protect water quality.

5/31/94. Mr. Patrick D. Curran, Portland. Argues that existing dischargers in the three basins may increase their wastewater discharges as long as the permitted loads are not exceeded.

6/3/94. Mr. Joe Barthlow, Salem. The proposed copper mine should be permitted, as it will be a key ingredient to future economic growth in the Santiam Canyon.

6/10/94. Dr. Bhagwati Poddar, Astoria. Opposes any change to the existing three basin rule. Clean water should not be sacrificed to extractive industries that result in temporary employment. Part of the attractiveness of Oregon to employers is the clean environment.

**\*These letters were received following a direct invitation and promise from DEQ staff on May 18 to communicate citizen's viewpoints to the Advisory Committee and the Commission. Letters sent to the Director or to individual Committee members may not be included here.**

6/14/94. Ms. Nattie R. Nisbet, Mehama. Questions whether the economic benefits of a copper mine would exceed the economic costs, due to environmental impacts and need for increased infrastructure. Thinks the proposed mine would be a "disaster".

7/19/94. Mr. Doug Hirte, Gates. Supports changing the rule to allow discharges. Believes that the proposed mine would pose no threat to water quality, since the discharge would be nondetectable very close to the outfall.

7/20/94. Mr. Lee O. Gibbs, Salem. Doesn't want his water rates to increase to allow a mine; believes that clean water is more valuable than any mineral.

7/27/94. Mr. Steve Johnson, Portland. States that the three rivers provide drinking water, recreation, and habitat for fish that should not be put at risk due to a mine. He believes that mines have a poor environmental record and are a poor risk. Relaxing water quality standards would be an "act of war" against Oregon children.

8/9/94. Mr. Richard R. Bilyeu. Thinks there are too many bureaucrats and too few family wage jobs. Supports the proposed copper mine for the jobs and taxes it will provide.

8/9/94. Ms. Julia T. Cook, McMinnville. Mines should be required to conduct operations without polluting, and the three basins should not be opened to industrial discharges.

8/17/94. Mr. Doug Hirte, Gates. The original rule would eliminate growth and development in the three basins. Hysteria over the proposed copper mine is based on inaccurate information. The rule should be changed to allow economic activities.

9/5/94. Ms. Susan Hawes, Puyallup. The risk to drinking water from a copper mine is too great, especially due to high rainfall and a high watertable in the area. Water quality standards should not be waived to allow the project.

9/14/94. Mr. John L. Rancher, Portland. As a long-time Oregonian, he believes that fisheries have dramatically declined as business interests and population pressure have grown. He does not support allowing a mine on the North Santiam. He also states that municipal drinking water supplies should be protected permanently, and that Oregon risks losing the very qualities that make the state desirable as a place to live.



One hundred twenty-four postcards like the one below were received:

Dear Three Basin Rule Committee,  
Dear Environmental Quality Commission Members,

The Clackamas, McKenzie and Little North Santiam river basins are pristine watersheds that provide clean, safe, and inexpensive drinking water for hundreds of thousands of people.

I urge you to keep these precious resources safe, clean and healthy. Mining is inappropriate and highly risky in watersheds such as these.

These waters will serve all of us well and for many years into the future if we act decisively now to protect them.

Please safeguard our drinking water without exception.

These resources deserve our respect. Your efforts will make the difference as I hope mine will too.

Thank you,

*Susan J. Moore*

Names and addresses of those sending the above postcard are included on the following six pages.

Names of Persons who Sent Postcards

S. Amato  
2085 Maple Ave. NE  
Salem, OR 97303

Sylvia Calmory  
3665 SW Wallula  
Gresham, OR 97080

R. Crosley  
4938 Sawmill Rd  
Salem, OR 97302

June L. Dimit  
20725 S. Tranquility Ln  
Oregon City, OR 97045

Steven J. Dimit  
20725 S. Tranquility Ln  
Oregon City, OR 97045

Sandy Fratharole  
2238 SE Oak  
Portland, OR 97214

David A. Gassaway  
15909 SE 22nd St  
Vancouver, WA 98684

Theresa Greene  
16800 SE Rock Creek Ct.  
Clackamas, OR 97015

F.M. Hagerty  
110 NE Bernes Ave  
Gresham, OR 97030

Miles R. Hagestad  
452 SW Halsey Loop  
Troutdale, OR 97060

Steven Kearky  
3969 NE 41st Avenue  
Portland, OR 97217

D.P. Lloyd  
12250 S. Thomas Rd  
Molalla, OR 97038

Sharon Long  
20745 S. Tranquility Ln  
Oregon City, OR 97045

Mike McComb  
19000 NE Sandy  
Portland, OR 97220

Susan Moore  
1565 Tucker Rd  
Hood River, OR 97031

Ted Panicucci  
2085 Maple Ave NE  
Salem, OR 97202

Jim Preble  
145 Randall St.  
Oregon City, OR 97045

Elizabeth A. Price  
1834 NE 53rd  
Portland, OR 97213

Kathy Rannings  
14942 S. Bayberry Dr.  
Oregon City, OR 97045

Roger Redfern  
1701 SE Ladd  
Portland, OR 97214

L.W. Roetzel  
850 Thompson Avenue NE  
Salem, OR 97301

Randy Roop  
16181 S. Eaden Rd.  
Oregon City, OR 97045

James W. Roop  
6428 Crampton Drive N  
Keizer, OR 97303

Annette Roop  
16181 S. Eaden Rd  
Oregon City, OR 97045

Arden Roop  
6428 Crampton Drive N  
Keizer, OR 97303

Twila J. Sasser  
1420 Shady Lane NE  
Keizer, OR 97303-4032

Wilson Sheets  
1990 Virginia NE  
Salem, OR 97301

Donna Sheets  
1990 Virginia NE  
Salem, OR 97301

Mike Sheets  
222 SE 18th  
Portland, OR 97214

Susan Sheets  
222 SE 18th  
Portland, OR 97214

Hazel Stevens  
Box 101  
Eagle Creek, OR 97022

Stan Stevens  
27001 Se Suttle  
Eagle Creek, OR 97022

R. Wahl  
1990 Virginia NE  
Salem, OR 97301

Leon Van Woerkom  
1248 SW 10th Drive  
Gresham, OR 97080

MW\WC12\WC12699.5

**MORE NAMES OF PERSONS WHO SENT POSTCARDS**

Robert Apperson  
5560 SE Ankeny  
Portland, OR 97215

Gordon O. Auburn  
6203 SE Clinton st  
Portland, OR 97206

Margie Beaudoin  
6215 SW 32nd Avenue  
Portland, OR 97201

Mark & Kathy Beaudoin  
7029 SW 49th  
Portland, OR 97219

Robert B. Bernstein  
1730 SE 35th Place  
Portland, OR 97214

William Bogh  
1105 NE 120th Avenue  
Portland, OR 97220-2054

Cindy Brochtrip  
919 NW 10th  
Corvallis, OR 97330

Lisa Brown  
Box 236  
Corvallis, OR 97339-0236

Duane & Sharon Buckmaster  
10810 SW Creightonwood Pl  
Portland, OR 97219

Jennifer Bunn  
501 Thousand Oak Dr.  
Corvallis, OR 97330

Theon Cline  
2507 208 Pl  
Ocean Park, WA 98640

Walter Cline  
2107 208 Pl  
Ocean Park, WA 98640

Oregon Clean Water Coalition  
Box 2277  
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James H. Conley  
385 Forst Hills Way, NW  
Salem, OR 97304

Don Crimmins  
11538 SE Grant  
Portland, OR 97216

Cristopher Running Deer  
427 SW Madison # 113  
Corvallis, OR 97303

D. H. Evanson  
Box 1910  
Florence, OR 97438

D.H. Evanson  
Box 1916  
Florence, OR 97439

Jim Fairfchild  
31540 Homestead Rd  
Philomath, OR 97370

Carol J. Gilchrist  
6215 SW 32nd  
Portland, OR 97201

Gordon M. Grey  
3405 NE 64th  
Portland, OR 97213

Linda Hunn  
1605 NW Forest Green #3  
Corvallis, OR 97330

Ruth Ann James  
1638 NE 118th Avenue  
Portland, OR 97220

Steve Johnsen  
111 NE Lombard  
Portland, OR 97211

Linda D. Jones  
703 NW 15th St  
Corvallis, OR 97330

Gary & Chris Kaleta  
33567 Rodney Rd  
Warren, OR 97053

Gregg Katke  
1503 N Hayden Dr. #76  
Portland, OR 97217

Jeff Kee  
13638 NW Riverview Dr  
Portland, OR 97231-2200

Kenneth Long  
710 NW 33rd  
Corvallis, OR 97330

Joe & Lennie Manser  
15047 NE Rose Parkway  
Portland, OR 97230

Evan Marvel  
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Corvallis, OR 97333

Gordon McGhee  
Clackamas Water District  
9100 SE Mangan Dr  
Clackamas, OR 97015

James E. Billings, MD  
2225 Lloyd Center  
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Tim Neketin  
52960 NW 6th  
Scappoose, OR 97056

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721 NW Warrenton Terrace  
Portland, OR 97210

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2130 NW Janssen St Suite 19  
Corvallis, OR 97330

Gregory A. Parrott  
13374 Hidden Bay Ct.  
Lake Oswego, OR 97035

Mr. & Mrs. Lewis Pence  
5570 SE Ankeny  
Portland, OR 97215

Stephen Phillips  
11262 SW Capitol Hwy  
Portland, OR 97219

K.L. Russell  
Box 16701  
Portland, OR 97216

Carol A. Saling  
4004 SE Evergreen  
Portland, OR 97202

Velma Saling  
4004 SE Evergreen St.  
Portland, OR 97202

Craig & Wendy Sigl  
750 SE 33rd St  
Troutdale, OR 97060

Mike Surgeon  
9227 NE Levee Rd  
Portland, OR 97211

Bob Sutter  
3803 SE Carlton  
Portland, OR 97202

Harry Sutter  
3803 SE Carlton  
Portland, OR 97202

SA\WC12\WC12813.5

MORE NAMES OF PERSONS WHO SENT POSTCARDS

Mr. & Mrs. John D. Bennett  
3180 SE Pelton Avenue  
Troutdale, OR 97060

Roland & Julie Benson  
8627 Se Yamhill St  
Portland, OR 97216

Lonni & Susan Blanton  
26595 SE Suttle Road  
Eagle Creek, OR 97022

Susan Boyl  
2030 NW Seventh Place  
Gresham, OR 97030-6619

Therea Byrne  
1175 Duffield SE  
Salem, OR 97302

M. Carden  
5280 Auburn Road, NE  
Salem, OR 97301

Jeanne Carlisle  
1338 Third St. #4  
Salem, OR 97304

Mr & Mrs Arlan Caya  
23200 NE Sandy #85  
Troutdale, OR 97080

Lonnie R. Denney  
294 SE Paloma Avenue  
Gresham, OR 97080

Stanley K. Fisher  
12468 SE Salmon Court  
Portland, OR 97233

Ken Kolb  
7020 SE Franklin  
Portland, OR 97206

C. G. Lalonde  
6268 N. Bank Street  
Portland, OR 97203

Jarrett & Dianna Markle  
11515 SE Westgate Way  
Clackamas, OR 97015

Mike McCormick  
7800 SW 83rd  
Portland, OR 97223

Patrick McCullough  
4345 NE 40th  
Portland, OR 97211

Roxanne Melzer  
2714 NE Sandy  
Portland, OR 97232

Bob & Mary Mulcrone  
1519 SW Spring Garden Street  
Portland, OR 97219

Wayne Rarchenstein  
4732 SE 61st  
Portland, OR 97206

Raymond & Carol Saunders  
5305 SE 65th  
Portland, OR 97206

Steve L. Smith  
2500 NE Fleming Terrace  
Gresham, OR 97030

M. D. Sorensen  
1309 SE 19th Circle  
Troutdale, OR 97060

Terrence Trexler  
516 SW Dogwood  
Estacada, OR 97023

Richard N. Wiland  
2839 SE 35th Avenue  
Portland, OR 97202

SA\WC12\WC12757.5

LIST OF CITIZENS WHO SENT POSTCARDS (9/2/94)

Mr. D.L. Endy  
33016 Little North Fork  
Lyons, Oregon 97385

Susan Foster  
P.O. Box 335  
Gresham, Oregon 97030

Agatha Schmaedick  
7020 Mountain View Drive  
Corvallis, Oregon 97330

Curt Oland  
19213 S.E. Yamhill, #23  
Portland, Oregon 97233

Lesley Yakel  
4538 S.E. Roethe Rd., #104  
Milwaukie, Oregon 97267

Tonya DeWing  
3020 S.E. 56  
Portland, Oregon 97201

Fran Sana  
19213 S.E. Yamhill #23  
Portland, Oregon 97233

D. Hartman  
7950 Ridgewood Drive  
Corvallis, Oregon 97330

John Boyd  
3724 S.E. 40th Avenue, Apt C  
Portland, Oregon 97202

George & Billie Burnett  
1515 N. Ainsworth #2  
Portland, Oregon 97217

Mrs. Ed Steen  
2846 S.E. Ash Street  
Portland, Oregon 97214

Phil and Terry Patrick  
12865 S.E. Geneva Way  
Portland, Oregon 97236

Beth Norris  
621 N.W. 14  
Corvallis, Oregon 97330

Bill Stout  
12600 S.E. Freeman Way #67  
Milwaukie, Oregon 97222

Joanne Hastings  
6949 S.W. Oakshade  
Corvallis, Oregon 97333

Marshall Wilde  
329 S.W. Sixth St, Apt E  
Corvallis, Oregon 97333

Jill Ondrey  
401 Hawley Hall  
Corvallis, Oregon 97331

Marie Nibergall  
1505 N.W. 14  
Corvallis, Oregon 97330

Lillian Stern  
Salem, Oregon

R.W. Bonebrooke  
839 S.E. 166th Place  
Portland, Oregon 97204

Pheema Cushman  
8815 N.W. Shepherd St.  
Portland, Oregon 97213

Steve Lattazi  
2635 S.E. Sherman  
Portland, Oregon 97214

Forty-nine postcards similar to the one below were received:

I support suction dredging  
in Oregon's waterways.

Tom Petrak  
7743 S.E. 68th  
Portl. OR  
97206

Names and addresses (when available) of those sending the above postcard are included on the following two pages.



Jen Alldritt

Alan W. Ballauce  
Box 2  
Culp Creek, OR 97427

Robert Browning  
816 East E. Street  
Battle Ground, WA 98604

Davied H. Burney  
11439 NE Morris St.  
Portland, OR 97220

Tracy Burton

D. Busselle  
15634 S. Outlook Terrace  
Oregon City, OR 97045

Craig Carmen  
7734 SE 68th  
Portland, OR 97206

Bruce Crawford

Terry Drever-Gee  
Rt 1, Box 54  
Baker City, OR 97814

Gerald Dyck

L. R. Evans  
2712 NE 111th Avenue  
Portland, OR 97220

Brian Garnett  
12611 NE 99th St #4148  
Vancouver, WA 98682

Donna Goss

Sue Hallett  
25199 Perkins Rd  
Veneta, OR 97487

Dale & Elsie Hepola  
7050 SE 57th  
Portland, OR 97206

Kathy Holleman  
Box 867  
Creswell, OR 97426

John Holleman  
Box 867  
Creswell, OR 97426

Clarence Janzen  
461 Cummings  
Keizer, OR 97303

Molly King  
7715 SE 68th  
Portland, OR 97206

G. Klier  
344 SE 29th Ave. #4  
Portland, OR 97214

Virginia Lawrence

Donald Lawrence

Guy Leabo  
Box 44  
Culp Creek, OR 97427

Ron Leach

Dale J. Matlock  
11118 NE St. Johns  
Vancouver, WA 98686

Dorothy Miller  
21701 SE Hiway 212  
Boring, OR 97009

Richard G. Miller  
21701 SE Hiway 212  
Boring, OR 97006

J. W. Morgan  
1312 NE 73rd  
Portland, OR 97213

Georgeann Nelson  
14315 Madison  
Cottage Grove, OR 97424

J. L. Noble  
9202 NE 83rd Avenue  
Vancouver, WA 98662

Bob Pergeson  
1963 Althouse  
Cave Junction, OR 97523

Anna Petrak  
7743 SE 68th  
Portland, OR 97206

Tom Petrak  
7743 SE 68th  
Portland, OR 97206

Jeanette Petrak  
7743 SE 68th  
Portland, OR 97206

Ken & Sharon Petrak  
7743 SE 68th  
Portland, OR 97206

Dave Rutan  
15209 SE Sun Park Dr  
Vancouver, WA 98684

Ardell J. Secord  
245 Cherry Ct.  
Cottage Grove, OR 97424

Dick Secord  
129 Quincy  
Cottage Grove, OR 97424

Richard Secord, Sr.  
245 Cherry Ct.  
Cottage Grove, OR 97424

Faye Stewart  
Box 1183  
Cottage Grove, OR 97424

Bruce & April Stewart  
34392 Garoutte Rd  
Cottage Grove, OR 97424

Marshall W. Tarrents  
23416 NE 139th Loop  
Brush Prairie, WA 98606

Brian R. Tarrents  
23416 NE 139th Loop  
Brush Prairie, WA 98606

Irvin & Emily Tiry  
4314 SE 50th  
Portland, OR 97206

Jack W. Waite  
39452 Row River Road  
Culp Creek, OR 97427

David Watson  
1101-D NE Minihaha St  
Vancouver, OR 98665

Dan West  
14204 NE 10th Avenue #59  
Vancouver, WA 98685

Al Worley

Jay Wright  
Box 898  
Port Orford, OR 97465

MW\WC12\WC12929.5

**ATTACHMENT C: Summary of Viewpoints Expressed at Advisory Committee Meetings**

Comments from Nine Citizens at the March 31 Meeting:

- The composition of the Committee should be different, or the level of public notice provided should be greater (3 persons)
- There should be more time at meetings for public input (1)
- The Committee should allow the copper mine proposed by Kinross Gold, Inc. in the North Santiam basin (3)
- The benefits of the proposed mine will not offset the environmental costs (4)
- DEQ's rules should be "practical" and allow orderly development (1)
- DEQ should enforce its rules more directly & consistently (1)

Comments from Three Citizens at the April 28 Meeting:

- Improving water for drinking purposes and wildlife habitat is extremely costly, and prevention is better than cleanup (2)
- The high quality waters policy is inadequate to protect the basins because: there is a lack of baseline data and monitoring, cumulative impacts are not modelled, and the economic tradeoff provides too great a "loophole" (1)
- The proposed Kinross mine should not be allowed. (3) Soils in the North Santiam are poorly buffered and slightly acidic, so a copper mine would be risky. The City of Salem water treatment technique is vulnerable to heavy metal loading (1)
- It should be easier for citizens to participate in the rule review (2)
- DEQs track record implementing its own rules is not good. Existing permits in the basins should not be legitimized (1)

Comments from Four Citizens at the May 26 Meeting:

- There should be greater public access to the Committee (2 persons)
- DEQ should focus on pollution prevention, not cleanup. More monitoring is needed (1)
- The bornite mine proposed for the North Santiam basin should not be allowed. Short-term economic activities should not be allowed to create adverse effects of long-term duration that affect people who don't benefit from the economic activity (3)
- There is potential for release of harmful compounds from the proposed bornite mine that could affect drinking water and aquatic ecosystems unless adequate monitoring and protective measures are provided (1)

Comment from One Citizen at the June 23 Meeting:

- The tradeoffs being considered in the rule review are

important and should be carefully weighed

Comments from Two Citizens at the July 21 Meeting:

- Incorrect information relevant to the proposed bornite project has been presented during previous public comment periods, and the Kinross Corporation would like the opportunity to present the facts from its point of view (1 person)
- The McKenzie Watershed Council is working to identify and implement goals for water quality in the McKenzie basin. Information about the Council and the watershed was distributed. The Committee was asked to solicit input from the Council prior to adopting final recommendations for the Three Basin Rule (1 person)

Comments from Seven Citizens at the August 11 Meeting:

- OAR 340-41-470 (1) should not be changed to allow increased degradation of water quality. (4 persons) The Committee's discussion should center on how to protect the basins, not degrade them. (2 persons) Too little is known regarding existing trends to risk exacerbating them. (1 person)
- The High Quality Waters Policy does not offer adequate protection for these basins. (2) DEQ's track record on permitting decisions and enforcement is poor. There are not sufficient staff to oversee permits. (4) Permits should be valid for less than five years. (1)
- Cumulative effects of discharges should be considered (2), and toxics need better regulation. (1)
- The basins should be considered separately to reflect their differences. (1)
- Industrial and sanitary process wastewater should be discharged to land only, through WPCF permits. (1) Discharges should be allowed only if there is no detectable lowering of water quality at the point of discharge. (1)
- Non-contact cooling water may degrade water quality. (1)
- The Kinross mine is driving the rule review. (1) Assumptions regarding the safety of mining discharges don't hold true. (1)
- The time allocated to public comment at the Advisory Committee meetings should be longer and the public should be given more advance notice of the meetings and proposed discussion topics. (2)
- If the rule is written to include discharges such as the proposed copper mine, the EQC will face the same public outrage as in January 1994. (1)

Comments from Twelve Citizens at the August 22 Meeting:

- The public comment and notice periods associated with Advisory Committee meetings are inadequate to allow full public input
- Committee members were invited to speak on a TV show
- Neither DEQ nor the EQC have statutory authority to change the no discharge rule, since the reasons for its original adoption haven't changed

- The Committee should continue to meet until agreement is reached
- Environmentalists have already destroyed the job base in resource-based communities. Some room should be left for economic activity
- Economic activity in the upper basins should be allowed, if only to provide public infrastructure to support recreation
- The Department should write rules that it can enforce. Setting trigger values accompanied by inadequate monitoring and enforcement does not protect the environment
- Recreational miners should have been represented on the Committee. Suction dredging improves water quality by removing toxic metals
- Experts have found that the proposed copper mine has a high potential to result in water quality problems

Comments from Ten Citizens at the September 7 Meeting:

- The no-discharge prohibition should be kept in place (4 persons)
- It doesn't make sense to allow mining discharges upstream from drinking water intakes (1)
- Some provision should be created in the proposed rule to allow for population growth besides just septic systems (1)
- Mining is important to modern industrial society, and this is not the appropriate forum to ban suction dredging (2)
- The proposed copper mine should be permitted since it will provide needed jobs and will be closely monitored by DEQ (1)
- DEQ does not do a good job of monitoring and enforcing permit conditions, nor does the Department follow its own rules. The Committee should beware when considering a rule revision (2)
- Clarification that ONRC hasn't signed off on the proposed copper mine (1)
- The Advisory Committee does not include some interests that should have representation in the discussions (2)
- More time and forums are needed for public input (2)

State of Oregon  
 Department of Environmental Quality

Memorandum

Date: September 21, 1994

To: Environmental Quality Commission  
 From: Lynne Kennedy  
 Subject: Possible EQC Rulemaking Deadlines

Below are two possible rulemaking schedules if amendment of the Three Basin Rule is proposed:

Rulemaking Steps:	Option 1	Option 2
Send Hearing Notice to Secretary of State for Publication in the Bulletin (by 15th of Month)	10/14/94	11/15/94
Deadline for Advisory Sub-Committee Draft Rule Recommendation.	10/27/94	11/16/94
Deadline for Full Advisory Committee Draft Rule Recommendation.	11/3/94	11/29/94
Mail Notice and Public Information Package to Rulemaking Mailing Lists (Mail 30 days prior to Hearing.)	11/15/94	12/12/94
Notice Published in Secretary of State's Bulletin (published on 1st of Month)	11/1/94	12/1/94
Public Hearing (Must be at least 21 days after notice is published in the Bulletin.)	12/15/94	1/12/95
Closure of Hearing Record (Usually 3 to 7 days after the hearing.)	12/18/94	1/16/95
EQC Meeting Date	Jan. 20, 1995	Feb. 16, 1995 (special mtg)

\*Some dates may be subject to change.

19 Sep 94

Mr. Fred Hansen  
ENVIRONMENTAL QUALITY COMMISSION  
Department of Environmental Quality  
811 SW 6th Avenue  
Portland, Or 97204

RE: EQC Special Meeting Thursday, Sep 22 1994

Dear Director Hansen:

I am troubled and disappointed to hear that your Three Basin Rule Advisory Committee of 24 members has disbanded without accomplishing their goal!

This 24 member Committee has spent 8 months and untold taxpayer dollars to arrive at a stone wall! It is an understandable conclusion, however, when your rules required a 90% concensus and 15% of the Committee were rabid anti-everything environmentalist!

This Committee appeared to the observing public to be another stalling tactic by the bureaucracy to deprive small communities the opportunity for economic development.

Please provide the public with a cost accounting of what this 'do nothing Three Basin Rule Advisory Committee' ended up costing the taxpayers of Oregon.

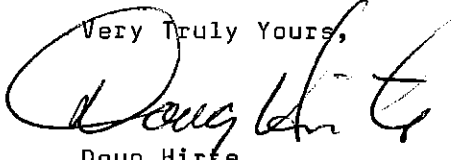
I also specifically ask YOU to take measures to approve a rule change to allow the NPDES permit to proceed with the planned Bornite Mine Project. It seems that surely if your department made up the 1977 'rule' in the first place, you and your department can also amend the same rule!

Without such a 'rule' amendment the affected peoples in the basins will not be allowed to grow or expand any socially beneficial economic base. My understanding is that the Attorney General's interpretation of the 1977 'rule' precludes any discharge--Period! Therefore without an amendment these communities will continue to die out or become bedroom towns for 'city' workers or play grounds for the wealthy city 'dudes' and government employees!

Locally existing industry is not allowed to change or grow; No new industry is permitted in these basins. Employment opportunity continues to shrink. Is that your desire and goal?

Modify the 'rule' Fred.

Very Truly Yours,

  
Doug Hirte  
POB 622  
Gates, OR 97346

cc: Mill City Enterprise

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
SEP 21 1994

OFFICE OF THE DIRECTOR

State of Oregon  
Department of Environmental Quality

Memorandum

Date: September 20, 1994

**To:** Environmental Quality Commission  
**From:** Lynne Kennedy<sup>JK</sup>, DEQ Water Quality Staff  
**Subject:** Three Basin Rule Review and Letter from Liz Frenkel

In addition to the staff report on the Three Basin Rule agenda item, you should find attached a copy of a letter sent by Liz Frenkel to approximately 1,000 Sierra Club members. The letter should explain phone calls you may have been receiving.

The Department received a copy of the letter today, and Liz was asked for an explanation. She stated that she sent the letter out last week in advance of hearing what the Department planned for the September 22 Commission meeting because her constituents needed time to respond. To diffuse unnecessary controversy at the Commission meeting, the Department presentation will make clear that no action on the rule revision is being proposed at this time.

SAWC12\WC12934.5