

10/19/1979

OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS



State of Oregon
**Department of
Environmental
Quality**

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OREGON ENVIRONMENTAL QUALITY COMMISSION MEETING

October 19, 1979

Portland City Council Chambers
1220 Southwest Fifth Avenue
Portland, Oregon

A G E N D A

9:00 am CONSENT ITEMS

Items on the consent agenda are considered routine and generally will be acted on without public discussion. If a particular item is of specific interest to a Commission member, or sufficient public interest for public comment is indicated, the Chairman may hold any item over for discussion.

- A. Minutes of September 21, 1979, Commission meeting
- B. Monthly Activity Report for August 1979
- C. Tax Credit Applications
- D. Request for authorization to conduct a public hearing on proposed changes to OAR 340-12-050, Air Quality Schedule of Civil Penalties.
- E. Request for authorization to conduct a public hearing on proposed amendments to exempt forestry operators from Noise Control Regulations for Industry and Commerce, OAR 340-35-035.
- F. Request for authorization to conduct a public hearing on proposed amendments to rules governing construction and use of waste disposal wells, OAR 340-44-005 through 44-045.
- G. Request for authorization to conduct a public hearing on the question of amending rules governing Subsurface and Alternative Sewage Disposal by adding a new section for sand filter systems, OAR 340-71-037(4).

PUBLIC FORUM

- 9:15 am H. Opportunity for any citizen to give a brief oral or written presentation on any environmental topic of concern. If appropriate, the Department will respond to issues in writing or at a subsequent meeting. The Commission reserves the right to discontinue this forum after a reasonable time if an unduly large number of speakers wish to appear.

ACTION ITEMS

The Commission will hear testimony on these items at the time designated but may reserve action until the Work Session later in the meeting.

- I. Request for approval of fiscal year 1980 Sewerage Works Construction Grants Priority List.

(MORE)

- 10:00 am J. Proposed adoption of Noise Control Regulations for Airports, OAR 340-35-045; Amended Definitions, OAR 340-35-015; and Airport Noise Control Procedure Manual, NCPS-37.
- 11:00 am K. DEQ vs. Howard Jones -- contested case review.

INFORMATIONAL ITEMS

- L. Informational Report: Status of research on the public health effects of field burning smoke.

WORK SESSION

The Commission reserves this time if needed to further consider proposed action on any item on the agenda.

Because of the uncertain time span involved, the Commission reserves the right to deal with any item at any time in the meeting except those items with a designated time certain. Anyone wishing to be heard on an agenda item that doesn't have a designated time on the agenda should be at the meeting when it commences to be certain they don't miss the agenda item.

The Commission will breakfast (7:30 am) in Conference Room A off the Standard Plaza Building Cafeteria, 1100 Southwest Sixth Avenue, Portland. The Commission will lunch in Room 321 of the Portland City Hall.

MINUTES OF THE ONE HUNDRED FOURTEENTH MEETING
OF THE
OREGON ENVIRONMENTAL QUALITY COMMISSION

October 19, 1979

On Friday, October 19, 1979, the one hundred fourteenth meeting of the Oregon Environmental Quality Commission convened in the Portland City Council Chambers, 1220 Southwest Fifth Avenue, Portland, Oregon.

Present were Commission members: Mr. Joe B. Richards, Chairman; Mr. Albert H. Densmore, Vice-Chairman; Mr. Ronald M. Somers; and Mr. Fred J. Burgess. Present on behalf of the Department were its Director, William H. Young, and several members of the Department staff.

The staff reports presented at this meeting which contain Director's recommendations mentioned in these minutes, are on file in the Director's Office of the Department of Environmental Quality, 522 Southwest Fifth Avenue, Portland Oregon.

BREAKFAST MEETING

The Commission met for breakfast at 7:30 a.m. in Conference Room A off the Standard Plaza Building Cafeteria at 1100 Southwest Sixth Avenue, Portland, and discussed the following items, taking action as indicated.

1. Report on meeting with MSD and League of Oregon Cities regarding Pollution Control Bond Fund. Mr. George Lee of the Department's Budget and Management Section, presented a report to the Commission regarding this meeting which offered some suggestions about the use of the Pollution Control Bond Fund.
2. Letter permit to PGE for operation of Bethel Plant. The Department had received a request from Portland General Electric Company to operate their Bethel plant while natural gas supply was plentiful and oil in short supply in lieu of operating its Beaver plant, and while the Trojan Nuclear Plant was shut down for maintenance. The Commission was informed that PGE planned to appear at the Public Forum section of the formal meeting to present this request.
3. Status report on population projections used for the sewerage works construction grants program. Mr. Tom Lucas of the Department's Water Quality Division presented a report to the Commission regarding this item. The Commission commented that a state agency responsible for official population projects was needed. It was indicated this item would probably appear as part of the formal agenda in November.
4. Executive Session. The Commission met briefly in Executive Session to discuss a lawsuit regarding the Sewerage Works Construction Grants Priority List.

5. Schedule for updating field burning rules for the 1980 burning season. Mr. Scott Freeburn of the Department's Air Quality Division, told the Commission they wanted to have this scheduled before the Commission for adoption in January or February, 1980, and would be asking for authorization to hold a public hearing at the November 1979 meeting.
6. Status report on Sunrise Village's attempt to form a sanitary district. The Commission was informed that on October 1, 1979, the Deschutes County Commission gave approval for Sunrise Village to form a sanitary district.
7. Date and location of the January and February EOC Meetings. It was decided that the Commission would meet January 25, 1980, and February 29, 1980, in Portland.
8. Request to Governor for Program Evaluation Study. It was the consensus of the Commission that this request proceed to the Governor.

FORMAL MEETING

AGENDA ITEM A - MINUTES OF THE SEPTEMBER 21, 1979, COMMISSION MEETING

It was MOVED by Commissioner Densmore, seconded by Commissioner Burgess and carried unanimously that the minutes of the September 21, 1979, Commission meeting be approved as presented.

AGENDA ITEM B - MONTHLY ACTIVITY REPORT FOR AUGUST 1979

It was MOVED by Commissioner Densmore, seconded by Commissioner Burgess, and carried unanimously that the Monthly Activity Report for August 1979 be approved.

AGENDA ITEM C - TAX CREDIT APPLICATIONS

It was MOVED by Commissioner Burgess, seconded by Commissioner Densmore and carried unanimously that the following actions regarding tax credit applications be approved.

1. Pollution Control Facility Certificates be issued to the following applicants:

T-1080	Union Oil Company of California
T-1082	Weyerhaeuser Company
T-1086	Willamette Industries, Inc.
T-1110	Jeld-Wen, Inc.
T-1115	Oregon Metallurgical Corporation
2. Pollution Control Facility Certificate numbers 662 and 856 be reissued to reflect a change in company name from Hilton Fuel to Hilton Fuel and Supply Company.

AGENDA ITEM D - REQUEST FOR AUTHORIZATION TO CONDUCT A PUBLIC HEARING ON PROPOSED CHANGES TO OAR 340-12-050, AIR QUALITY SCHEDULE OF CIVIL PENALTIES

AGENDA ITEM E - REQUEST FOR AUTHORIZATION TO CONDUCT A PUBLIC HEARING ON PROPOSED AMENDMENTS TO EXEMPT FORESTRY OPERATORS FROM NOISE CONTROL REGULATIONS FOR INDUSTRY AND COMMERCE, OAR 340-35-035

AGENDA ITEM F - REQUEST FOR AUTHORIZATION TO CONDUCT A PUBLIC HEARING ON PROPOSED AMENDMENTS TO RULES GOVERNING CONSTRUCTION AND USE OF WASTE DISPOSAL WELLS, OAR 340-44-005 THROUGH 44-045

AGENDA ITEM G - REQUEST FOR AUTHORIZATION TO CONDUCT A PUBLIC HEARING ON THE QUESTION OF AMENDING RULES GOVERNING SUBSURFACE AND ALTERNATIVE SEWAGE DISPOSAL BY ADDING A NEW SECTION FOR SAND FILTER SYSTEMS, OAR 340-71-037(4)

Mr. George Ward appeared in favor of holding the above public hearings.

It was MOVED by Commissioner Densmore, seconded by Commissioner Burgess, and carried unanimously that the above-proposed public hearings be authorized.

AGENDA ITEM H - PUBLIC FORUM

Mr. James Durham, Portland General Electric Company, appeared before the Commission to request that PGE be allowed to operate their Bethel Plant contrary to Condition 9 of their permit, in lieu of operating the Beaver Plant while the Trojan Nuclear Plant was shut down for maintenance. He said the reason for this request was that the Beaver Plant could only be run on oil and they had no guarantee that after their present oil reserve was used they could obtain more. However, he said the Bethel Plant could be operated on natural gas, which at the present time was more plentiful than oil.

During the work session later in the meeting, the Director asked for guidance from the Commission on how they would like to handle this matter. He said the Department had received information from the Department of Energy that they were alarmed about the possibility of the lack of availability of oil in the coming winter.

Ms. Merrie Buel, Oregon Environmental Council, said they recognized the energy situation, however, requested that if PGE were allowed to operate Bethel, it only be operated during daytime hours. Representatives of PGE replied that in any event, only one turbine would operate at night.

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess, and carried unanimously that the Director be authorized to issue a special 60-day letter permit to PGE to operate the Bethel Plant giving relief from Condition 9.a. of their permit.

AGENDA ITEM I - REQUEST FOR APPROVAL OF FISCAL YEAR 1980 SEWERAGE WORKS
CONSTRUCTION GRANTS PRIORITY LIST

Based on the fiscal year 1980 State Priority System approved by the EQC on August 31, 1979, a draft priority list was developed and distributed to concerned and interested parties. A public hearing on the draft list was conducted October 8, 1979. From the oral and written testimony received at the hearing and staff input, the proposed list was developed.

If Congress approves \$3.4 billion nationwide for fiscal year 1980, Oregon's share would be about \$43.5 million. After the setasides were deducted from this amount, \$32.19 million would be available for the fundable portion of the list. The FY 80 priority list identified about \$296 million of need for 144 projects over the five-year planning period. Of these 144 projects, 16 would be on the fundable portion. It was anticipated that seven of these projects would continue to need a substantial share of the general allotment for the foreseeable future. The balance of 128 projects would receive only measured assistance from the remaining \$6 million available for initiating steps 1, 2, or 3.

Mr. William V. Pye, Mr. Bob Adams, Mr. Larry Thorp, and Mr. Mark Westling, appeared representing the Metropolitan Wastewater Management Commission in Eugene. They testified regarding the funding for projects in Lane County. They stressed that the projects might have to be aborted if funding was not available during FY 80. They also suggested that the Commission reevaluate their method of determining priorities and examine whether it complied with the spirit and intent of the pertinent federal regulations. A letter was submitted from Gary W. Wright, President of Wastewater Management Commission stating their position. This letter is made a part of the Commission's record on this matter.

Mr. David Abraham, Clackamas County, reiterated his testimony at previous meetings that the County could not go forward on much-needed projects in the Tri-Cities and Mt. Hood areas until they had a commitment for funding. Without these projects he said, growth in those areas was being retarded.

Mr. L. P. Gray, City of Hermiston, appeared in support of the staff recommendation on the priority list.

Mr. Rick Gustafson, Metropolitan Service District, congratulated the staff on their work on this priority list but said that revisions still needed to be made. He said the EQC did not have the ability at their level to deal with this problem. Mr. Gustafson suggested that the system for assigning priorities be reevaluated and that there be a push for self-supporting systems at the local level.

Mr. Oliver J. Domreis, Multnomah County, testified in support of the staff recommendation.

This matter was deferred to the work session later in the meeting. At that time Mr. Ray Underwood, Department of Justice, informed the Commission that there was nothing in the federal regulations to prohibit them from adopting the priority criteria and list that was before them.

Summation

1. A state priority list has been developed based on the best available data and upon the priority system approved by the EQC on August 31, 1979.
2. The priority list has been developed in accordance with the federal requirements for public participation.
3. Oral and written testimony received at the public hearing was considered in developing the list. Changes have been made in accordance with the prioritizing criteria.

Director's Recommendation

Based on the summation, it is recommended that the FY 80 sewerage works construction grants priority list be approved.

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess, and carried unanimously that the Director's Recommendation be approved.

AGENDA ITEM J - PROPOSED ADOPTION OF THE NOISE CONTROL REGULATIONS FOR AIRPORTS, OAR 340-35-045; AMENDED DEFINITIONS, OAR 340-35-015; AND AIRPORT NOISE CONTROL PROCEDURE MANUAL, NCPS-37

The Department has been aware of the noise impacts caused by aircraft and airports since the beginning of the noise control program. Public attitude toward this source of noise indicates those impacted believe this to be a major problem affecting their neighborhoods.

One year ago a petition was submitted by Oregon Environmental Council requesting that aircraft and airport noise be regulated by Commission rules. Staff was directed to draft rules that were then discussed at informational hearings and other meetings.

Draft rules used for discussion purposes were then refined and formal rulemaking hearings were held in August. This final proposed rule reflects DEQ's best effort to control this complex source in a reasonable manner.

The seven air carrier airports in Oregon would be required to develop a noise impact boundary within 12 months of rule adoption. If a problem were shown to exist at a nonair carrier airport, the proprietor would be required to provide data to the Department, so that Department staff could calculate the airport noise impact boundary.

Before either type of airport would be required to do further work, an informal negotiation process would be utilized to attempt to resolve the problem. If this failed, a public hearing would be held to determine the need for a formal noise abatement program at the affected airport. Any formal abatement plan would contain an airport operational element and a land-use control and development element. It would be prepared by the proprietor and presented to the Commission for approval.

Although the proprietor is probably not a land-use expert, both federal and state guidelines recognize that the proprietor should have the lead role in development of a recommended land-use plan for airport impacted areas. The Department would use its ability to review local comprehensive land-use plans to ensure appropriate actions are taken by local government to support the airport proprietor's efforts to protect the public from excessive noise.

Summation

1. The airport/aircraft noise impacted public is frustrated with the response that federal, state, and local government has taken toward its complaints.
2. The claim that aircraft noise is decreasing due to Federal aircraft noise emission controls may not be valid as pending Congressional action would provide open-ended waivers and exemptions to the present schedule.
3. There is no indication that any federal regulation, or other federal action to reduce airport/aircraft noise, is forthcoming.
4. Although many Oregon airports have completed airport master plans, this process does not adequately address noise impacts nor provide meaningful solutions.
5. The proposed rule has the following significant features:
 - a) An informal resolution process for noise problems at an airport or heliport of any size is provided. Airports with minimal operations would not be regulated under the substantive portions of the rule;
 - b) All seven air carrier airports must prepare a noise impact boundary analysis within 12 months of rule adoption. Cost for this development has been estimated between \$500 and \$10,000.
 - c) If unresolved problems exist at any nonair carrier airport, Department staff would prepare the Noise Impact Boundary, with assistance from the proprietor in developing needed information.
 - d) If an impact boundary analysis verifies that a noise problem exists, and if, after a public hearing the need for an abatement program is shown, an airport noise program must be developed for Commission approval within 12 months.
 - e) An abatement program would include projected noise contours, an airport operational plan to reduce noise impacts, and a recommended land-use and development plan.

6. The airport proprietor has been legally held responsible for noise impacts to the surrounding community.
7. The airport proprietor is the entity with the knowledge and understanding requisite for developing an operational noise abatement plan.
8. Federal and state guidelines agree that the airport proprietor is best able to develop and recommend a land-use and development plan for the area surrounding the airport.
9. An airport noise criteria of an annual average Ldn 55 decibels is consistent with federal and state guidelines and with other Commission standards.
10. Any criteria in excess of Ldn 55 would render the proposed rule useless for airport noise abatement, noncompatible land-use mitigation, and preventative development control purposes.
11. Although many small airports will not produce noise levels in excess of the Ldn 55 criteria, the proposed informal resolution procedures warrant the inclusion of all airports within the scope of the rule.
12. Any soundproofing plan proposed in a specific noise abatement program would be evaluated by the Commission on a case-by-case basis for consistency with acceptable guidelines.
13. Soundproofing costs have been estimated at a minimum of \$0.21 to a maximum of \$0.60 per square foot per decibel of reduction. Although these costs may appear to be excessive, such mitigation is optional and should only be proposed in an abatement program when benefits exceed costs and funding mechanisms are identified.
14. The loss to market value of homes exposed to airport noise was estimated at 0.5 percent per decibel above Ldn 55. Typical Portland residences exposed to Ldn 65 would thus have a market-value reduction of \$3500 per home.
15. Costs attributed to public health impacts and those resulting from civil nuisance litigation have not been assessed.

Director's Recommendation

Based on the Summation, it is recommended that the Commission take action as follows:

1. Adopt the Final Statement of Need for Rulemaking.
2. Adopt the following as permanent rules to become effective upon prompt filing, along with the Statement of Need, with the Secretary of State:

- a) Amended Definitions, OAR 340-35-15
- b) Noise Control Regulations for Airports, OAR 340-35-045
- c) Airport Noise Control Procedure Manual, NPCCS-37

Mr. John Hector of the Department's Noise Section, presented for the record some additional written testimony received from the FAA, United Airlines, ALPA, and some general aviation manufacturers opposing the adoption of the rules. This written testimony is made a part of the Commission's record on this matter.

Ms. Helen Baer, Environmental Protect Agency, testified in favor of adopting the proposed rules. She stressed that these rules should allow for public participation in the preparation of airport master plans.

Mr. Lloyd Anderson, Port of Portland, said the Port favored the reduction of noise in and around Portland International Airport, however, the proposed rules would not reduce noise at its source which is the aircraft. He testified that due to the ever-increasing controls on aircraft noise, there would be less noise in the future from aircraft. Mr. Anderson stressed that the airport proprietor did not always have control over the sources of noise around the airport. Mr. Anderson filed specific changes to the rule with the EQC for their information and his written comments are made a part of the Commission's record on this matter.

Mr. Mike Randolph, City of Corvallis, testified in opposition to the proposed rules. He said that the noise problem was with the aircraft and must be federally controlled.

Mr. C. Gilbert Sperry, Oregon Pilots Association, testified in opposition to the proposed rules. He said the problem was primarily in and around Portland International Airport and that regulations were unnecessary for the remainder of the state. Mr. Sperry testified that any changes in operating procedures of aircraft should be done by experts in the field with the concurrence of the FAA.

Ms. Lorna Vander Zanden, Hillsboro, testified about a noise problem from the Hillsboro Airport. She was in favor of the rule adoption.

Ms. Merrie Buel, Oregon Environmental Council, said they appreciated the staff work in addressing OEC's concerns about airport noise. They were in favor of the rule adoption.

Ms. Jean Baker, Oregon Environmental Council, testified in favor of the rules. However, she said the rules were very mild and may need to be tightened in the future.

Mr. Gary Gregory, Parkrose Citizens Association, testified in favor of the rule adoption. He said that prior to 1977 the area did not have a noise problem from Portland International Airport. Since that time, he

continued, operation changes have caused a severe noise problem in the area. Mr. Gregory presented a letter from Representative Sandy Richards expressing her support for the proposed rules. This letter is made a part of the Commission's record on this matter.

Mr. Paul E. Burket, State Aeronautics Division, submitted to the Commission his Division's recommended guidelines for airport planning and zoning. Mr. Burket asked for a delay in adoption of the rules. They were in favor of the rules, he said, but felt they needed more work. Mr. Burket said it was becoming evident that the federal government was not going to promulgate noise regulations for airports in the near future. Mr. Burket's written statement is made a part of the Commission's record on this matter.

Mr. Terry Smith, City of Eugene, testified in opposition to the proposed rules stating they felt the rules were seriously deficient. Mr. Smith submitted some specific recommendations for revisions to the proposed rules which are made a part of the Commission's record along with his written testimony.

Mr. Dave Wiley, U.S. Seaplane Pilots Association, testified in opposition to the proposed rules.

Chairman Richards commented that he was unsure the airport proprietor could accomplish what was intended in the proposed rule and suggested that perhaps the rule needed modification. He said he was not prepared to act on this matter yet.

It was MOVED by Commissioner Burgess, seconded by Commissioner Somers, and carried unanimously to defer action on this item until the November meeting. The staff was instructed to respond to testimony received at this meeting in November.

AGENDA ITEM K - DEQ v. HOWARD JONES - CONTESTED CASE REVIEW

Mr. Howard Jones requested that the Commission review the Hearing Officer's decision affirming the Department's revocation of a permit for a subsurface system on Mr. Jones' property. Also before the Commission was Mr. Jones' request to present additional evidence.

Mr. Michael Henderson, Attorney for Howard Jones, presented a Motion for Order allowing respondent to submit further evidence of the approval of the subdivision in which his lot was located.

It was MOVED by Commissioner Somers, seconded by Commissioner Densmore, and carried unanimously that the Motion to Submit Additional Evidence be denied.

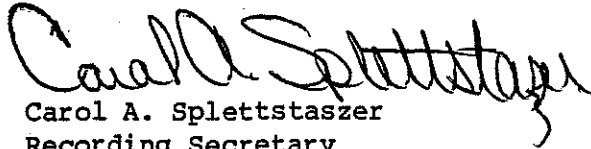
It was MOVED by Commissioner Somers, seconded by Commissioner Burgess, and carried unanimously that the Hearing Officer's Order and Findings be affirmed.

AGENDA ITEM L - INFORMATIONAL REPORT: STATUS OF RESEARCH ON THE PUBLIC
HEALTH EFFECTS OF FIELD BURNING SMOKE

This item was postponed until the November Commission meeting.

There being no further business, the meeting was adjourned.

Respectfully submitted,


Carol A. Spletstaszer
Recording Secretary



Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item B, October 19, 1979, EQC Meeting

August Program Activity Report

Discussion

Attached is the August Program Activity Report.

ORS 468.325 provides for Commission approval or disapproval of plans and specifications for construction of air contaminant sources.

Water and Solid Waste facility plans and specifications approvals or disapprovals and issuance, denials, modifications and revocations of permits are prescribed by statutes to be functions of the Department, subject to appeal to the Commission.

The purposes of this report are:

- 1) to provide information to the Commission regarding the status of reported program activities and an historical record of project plan and permit actions;
- 2) to obtain confirming approval from the Commission on actions taken by the Department relative to air contamination source plans and specifications; and
- 3) to provide a log on the status of DEQ/EQC contested cases.

Recommendation

It is the Director's Recommendation that the Commission take notice of the reported program activities and contested cases, giving confirming approval to the air contaminant source plans and specifications listed on pages 2 and 3 of the report.

Bill

WILLIAM H. YOUNG

M. Downs:ahc
229-6485
10-02-79



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DEPARTMENT OF ENVIRONMENTAL QUALITY

Monthly Activity Report

August, 1979

Month

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DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality, Solid
Waste, Water Quality Divisions
(Reporting Unit)

August, 1979
(Month and Year)

SUMMARY OF PLAN ACTIONS

	Plans Received		Plans Approved		Plans Disapproved		Plans Pending
	Month	Fis. Yr.	Month	Fis. Yr.	Month	Fis. Yr.	
<u>Air</u>							
Direct Sources	11	28	16	30	0	0	62
Total	11	28	16	30	0	0	62
<u>Water</u>							
Municipal	161	277	127	207			104
Industrial	17	27	14	28			21
Total	178	304	141	235	0	0	125
<u>Solid Waste</u>							
General Refuse	1	2	3	4		2	2
Demolition							1
Industrial		1					2
Sludge		1					1
Total	1	4	3	4	0	2	6
<u>Hazardous Wastes</u>							
<u>GRAND TOTAL</u>	190	336	160	269	0	2	193

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division
(Reporting Unit)

August, 1979
(Month and Year)

PLAN ACTIONS COMPLETED - 16

* County	* Name of Source/Project * /Site and Type of Same	* Date of * Action	* Action	* *
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Direct Stationary Sources

Baker (NC 1115)	Blue Mountain Lime Co. Lime Manufacturing	8/27/79	Cancelled	
Jackson (NC 1230)	Rogue Valley Plywood Veneer dryer	3/1/79	Approved	
Clackamas (NC 1336)	Oregon Portland Cement Co. Cement transfer system	6/12/79	Cancelled	
Lane (NC 1350)	International Paper Co. Repair two veneer dryers	5/31/79	Approved (Tax Credit Only)	
Lane (NC 1351)	International Paper Co. Sandair filter on veneer dryers	5/31/79	Approved (Tax Credit Only)	
Multnomah (NC 1368)	Crown Zellerback Co. Solvent Absorption recovery	7/27/78	Approved	
Multnomah (NC 1388)	Northwest Foundry Sand blast dust collector	8/14/79	Approved	
Jackson (NC 1415)	Highlands Orchard Co. Over tree sprinkler system	5/23/79	Approved	
Jackson (NC 1416)	Earnest Orchards & Packing Three orchard fans	5/23/79	Approved	
Multnomah (NC 1427)	Simpson Timber Co. Coating hardboard	7/27/79	Approved	
Multnomah (NC 1430)	Portland Iron Works Paint spray booth board	7/27/79	Approved	
Multnomah (NC 1446)	Blasen & Blasen Lumber Co. Hogged fuel boiler	8/16/79	Approved	

AO2175.A

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division
(Reporting Unit)

August, 1979
(Month and Year)

PLAN ACTIONS COMPLETED - 16, cont'd

* County	* Name of Source/Project	* Date of	* Action	*
*	* /Site and Type of Same	* Action	*	*
*	*	*	*	*

Direct Stationary Sources

Lane (NC 1451)	Southwest Forest Industries Ionic scrubber for veneer dryer	8/13/79	Approved
Deschutes (NC 1452)	Brooks-Scanlon, Inc.. Re-build hog boilers #3 & 4	8/1/79	Approved
Lane (NC 1453)	Willamette Woodwards, Inc. Conveyor, filter and bin system	8/13/79	Approved
Multnomah (NC 1463)	Husky Car/Truck Stop VOC vapor balance system	8/20/79	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality (Reporting Unit)	August 1979 (Month and Year)
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PLAN ACTIONS COMPLETED

* County	* Name of Source/Project	* Date of	* Action
*	* /Site and Type of Same	* Action	*
*	*	*	*

INDUSTRIAL WASTE SOURCES (14)

Tillamook	Larry Zweifel Dairy, Tillamook, Animal Waste Holding Tank	8/3/79	Approved
Linn	Tomco, Inc., Sweet Home, Conversion of Steam Block Heating to Hot Water (Recirculated)	8/7/79	Approved
Polk	Alvin Jahn, Grande Ronde, Manure Storage & Disposal	8/7/79	Approved
Linn	Teledyne Wah Chang Albany, Columbial Centrifugal Washer	8/13/79	Approved
Linn	Teledyne Wah Chang Albany Upgrade Flow Monitor Pond 2	8/13/79	Approved
Linn	Teledyne Wah Chang Albany Polymer Feed System for Solids Reduction	8/13/79	Approved
Washington	E. F. Steinborn, Sherwood, Manure Holding & Disposal	8/14/79	Approved
Washington	Steven Hutchins, Banks, Manure Holding & Disposal	8/15/79	Approved
Linn	Teledyne Wah Chang Albany Flood Control, Truax Creek	8/17/79	Approved
Marion	Michael Kenagy, Salem Earthen Storage Lagoon	8/17/79	Approved

MAR.3 (5/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality	August 1979
(Reporting Unit)	(Month and Year)

PLAN ACTIONS COMPLETED

* County	* Name of Source/Project	* Date of	* Action	*
*	* /Site and Type of Same	* Action	*	*
*	*	*	*	*

INDUSTRIAL WASTE SOURCES continued

Multnomah	Ace Galvanizing, Portland Zinc Removal System	8/31/79	Approved
Linn	Gary Troost, Stayton, Manure Storage Tank	8/28/79	Approved
Linn	Marvin LaRont, Scio Earthen Storage Lagoon, Hog Waste	8/28/79	Approved
Marion	David J. Bielenberg, Silverton, Earthen Storage Lagoon	8/29/79	Approved

WDL:l
WL4069.A

MAR.3 (5/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIV. ACTIVITY REPORT

9/20/79 PLAN ACTIONS COMPLETED: 127

MUNICIPAL SOURCES 111

FOR AUGUST 1979

ENGR	COUNTY	LOCATION	PROJECT	REVIEWER	DATE RECVD	DATE OF ACTION	ACTION	DAYS TO COMPLETE
		EUGENE	FLATBUSH 1ST ADD	K	7/19/79	8/13/79	PA	25
		EUGENE	W 25TH AVE	K	7/19/79	8/13/79	PA	25
		EUGENE	LASSEN ST	K	7/18/79	8/13/79	PA	26
		EUGENE	AUGUSTA ST	K	7/18/79	8/13/79	PA	26
		EUGENE	OXBOW FIRST ADD	K	7/16/79	8/13/79	PA	28
		EUGENE	HOLLY CREST SUBDIV	K	7/16/79	8/13/79	PA	28
		FOREST GRVE	GARDEN GROVE PROJ	K	7/13/79	8/16/79	PA	34
		SPFD	VIA LINDA PROJ	K	7/11/79	8/08/79	PA	28
		ROSEBURG	RIVERVIEW DRIVE	K	7/18/79	8/17/79	PA	30
		NEWPORT	NW OCEAN DRIVE SWR	K	7/09/79	8/07/79	PA	29
		BCVSA	WEST ANDREWS RD	K	7/16/79	8/15/79	PA	30
		BCVSA	LAKWOOD CHTR	K	7/17/79	8/15/79	PA	29
		SWEET HME	STRAWBERRY HILLS EST	K	7/11/79	8/07/79	PA	27
		LKE OSWEGO	RIVENDELL PUD	K	7/09/79	8/03/79	PA	25
		HILLSBORO	MONTERRA ADD	K	7/19/79	8/10/79	PA	22
		S SUB SAN D	NINTH ADD TO SUNSET	K	7/09/79	8/10/79	PA	32
		JACKSONVILLE	HILL ST EXTEN	K	7/25/79	8/10/79	PA	16
		NEWBERG	WILDWOOD ADDITION	K	7/11/79	8/10/79	PA	30
		PTLD	MARICARA PROJ	K	7/20/79	8/10/79	PA	21
		SALEM	WEIGART ESTATES	K	7/26/79	8/09/79	PA	26
		SALEM	CHEMAWA GRAV-PRESS SWRS	K	7/13/79	8/13/79	PA	31
		SALEM	BEAVER HILLS NO 1	K	7/16/79	8/21/79	PA	36
		USA	BRIDGEPORT	K	7/23/79	8/08/79	PA	16
		CANYONVILLE	BERRY PROJECT	K	7/27/79	8/01/79	PA	05
		ROCKAWAY	BL-63 EXTEN H-1	K	7/27/79	8/10/79	PA	14
		PTLD	13TH-15TH-BRYANT	K	7/10/79	8/06/79	PA	27
		SALEM	HILL AND VALE NO 2	K	7/25/79	8/10/79	PA	16
		SALEM	DIAMOND INDUST	K	7/23/79	8/09/79	PA	17
		MCMINNVILLE	WEST COZINE INTERCEPT	K	7/09/79	8/09/79	PA	31
		HILLSBORO	INTEL CORP PROJ	K	7/12/79	8/08/79	PA	27
		CCSD NO 1	IMPERIAL PLAZA	K	7/13/79	8/10/79	PA	28
26		GRESHAM	CONTRACT C-2 FINAL PLANS	V	4/11/79	8/27/79	PA	137
		GRESHAM	C-3 ELECTRICAL	V	5/09/79	8/27/79	PA	108
		GRESHAM	C-4 ODOR REDUCTION FAC	V	5/07/79	8/27/79	PA	110
		NEWBERG	MERIDIAN PARK-FIRST	K	7/16/79	8/27/79	PA	43
		FLEMING SCHOO	STP EXPANSION - JOS CO	V	8/06/79	8/29/79	PA	23
		SHADY COVE	FINAL PLANS	V	8/28/79	8/31/79	PA	03
		GRESHAM	CONT C-5 GRAVITY TH CONST	V	8/10/79	8/27/79	PA	17
		GRESHAM	CONT E-5 GRAVITY TH MECH	V	7/10/79	8/27/79	PA	38
		TUALATIN	RAINTREE PARK	K	8/03/79	8/30/79	PA	27
		PTLD	NOTTINGHAM DR	K	8/06/79	8/31/79	PA	25
		CORNELIUS	HEATHER PARK II	K	8/07/79	8/30/79	PA	23
		MEDFORD	COUNTRYWOOD SUBDIV	K	8/06/79	8/30/79	PA	24
		WEST LINN	HIDDEN SPR RANCH NO 6	K	8/06/79	8/30/79	PA	24
		USA	SEMIHOLE PARK NO 2	K	8/20/79	8/31/79	PA	11
		USA	HAMBACH PARK	K	8/08/79	8/31/79	PA	23
		USA	HUEGLI MLP	K	8/10/79	8/30/79	PA	20

DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIV. ACTIVITY REPORT

9/20/79 PLAN ACTIONS COMPLETED: 127

MUNICIPAL SOURCES (Cont.)

FOR AUGUST 1979

ENGR	LOCATION COUNTY	PROJECT	REVIEWER	DATE RECVD	DATE OF ACTION	ACTION	DAYS TO COMPLETE
	USA	SUMMERFIELD CNTR	K	8/10/79	8/31/79	PA	21
	USA	110TH AVE PK	K	8/10/79	8/31/79	PA	21
	USA	FOX HOLLOW	K	8/09/79	8/30/79	PA	21
	BEND	RENWICK ACRES DET	K	8/06/79	8/31/79	PA	25
	CCSD NO 1	SOUTHERN LITES II	K	8/06/79	8/31/79	PA	25
	CCSD NO 1	FALBROOK II	K	8/15/79	8/31/79	PA	16
	CORVALLIS	CREEDMORE SUBDIV	K	8/08/79	8/31/79	PA	23
	CORVALLIS	WALNUT PARK PH II	K	8/06/79	8/31/79	PA	25
	CORVALLIS	FOREST HEIGHTS 2ND	K	8/08/79	8/31/79	PA	23
	WINSTON	LOOKINGGLASS RD	K	8/08/79	8/31/79	PA	23
	EUGENE	SOLAR HEIGHTS PH 2A	K	8/09/79	8/31/79	PA	22
	PHOENIX	BARNUM SUBDIV	K	7/31/79	8/27/79	PA	27
	SALEM	WILDFLOWER ACRES	K	7/20/79	8/15/79	PA	26
	BEND	RENWICK ACRES	K	8/19/79	8/31/79	PA	12
	NEWPORT	YAQUINA RD TO NOR	K	7/09/79	8/03/79	PA	25
	EUGENE	SWEETLAND REVISED	K	7/23/79	8/14/79	PA	22
	USA	ROXBURY PARK	K	8/10/79	8/20/79	PA	10
	USA	MEAD PUMP STA	K	8/09/79	8/20/79	PA	11
	REDMOND	AUTUMINGLEN	K	8/09/79	8/21/79	PA	12
	LEBANON	FIRST ADD HD VIEW	K	8/13/79	8/21/79	PA	08
	SALEM	COLBATH-NEBER	K	8/07/79	8/23/79	PA	16
	SALEM	CHAPMAN HILLS WEST III	K	8/13/79	8/22/79	PA	09
	PILD	SE 31ST-32ND-TINDALL	K	8/14/79	8/22/79	PA	08
	PILD	SE MALDEN CT-119TH	K	8/03/79	8/22/79	PA	19
	HILLSBORO	LAURA II	K	8/02/79	8/18/79	PA	16
	NEWPORT	SE SPRUCE WY	K	8/06/79	8/22/79	PA	16
	LKE OSWEGO	HALLINAN SCH	K	8/06/79	8/22/79	PA	16
	SALEM	PRESSLER HTS	K	8/01/79	8/16/79	PA	15
	UMATILLA	RIVERVIEW TER	K	8/10/79	8/21/79	PA	11
	EUGENE	FAIRWAY VIEW	K	8/03/79	8/17/79	PA	14
	CCSD NO 1	IMPERIAL ESTATES	K	7/17/79	8/10/79	PA	24
	THE DALLES	WEST 10TH - HOSTET	K	8/07/79	8/21/79	PA	14
	REEDSPORT	PROVIDENCE PT	K	8/03/79	8/17/79	PA	14
	ORE CTY	HILLENDALE PH I	K	8/08/79	8/21/79	PA	13
	USA	BURNTWOOD PROJ	K	8/09/79	8/20/79	PA	11
	BROOKINGS	CAMEO SUBDV	K	8/01/79	8/10/79	PA	09
	USA	SUSAN ANH PARK	K	8/13/79	8/27/79	PA	14
	USA	SUMNERCREST NO 2	K	8/06/79	8/27/79	PA	21
	USA	CASA GRANDE	K	8/06/79	8/24/79	PA	18
	USA	NORMANDY SQUARE	K	8/07/79	8/24/79	PA	17
	USA	PATHWAY EST NO 2	K	8/07/79	8/24/79	PA	17
	USA	DALES GLEN	K	8/14/79	8/27/79	PA	15
	USA	WINTERBORNE SUBD	K	8/14/79	8/27/79	PA	15
	CCSD NO 1	PYBURNS PLACE	K	8/03/79	8/22/79	PA	19
	REDWOOD SD	DUN ROVIN PARK REVISED	K	8/13/79	8/23/79	PA	10
	SALEM	KOSTENBORDER REVISED	K	8/08/79	8/22/79	PA	14
	MEDFORD	CAMPUS SUBDIV	K	8/03/79	8/22/79	PA	14

DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIV. ACTIVITY REPORT

9/20/79 PLAN ACTIONS COMPLETED: 127

MUNICIPAL SOURCES (Cont.)

FOR AUGUST 1979

ENGR	COUNTY	LOCATION	PROJECT	REVIEWER	DATE RECVD	DATE OF ACTION	ACTION	DAYS TO COMPLETE
		CCSD NO 1	THIESSEN PK	K	8/08/79	8/24/79	PA	16
		SPFD	SHADY LN 1ST ADD	K	8/07/79	8/27/79	PA	20
		PTLD	SW DOSCH RD-BOUNDARY	K	8/02/79	8/27/79	PA	25
		PTLD	NW HODGE AVE-WILARK	K	8/03/79	8/27/79	PA	24
		PTLD	SW MARICARA-30THAVE	K	8/02/79	8/27/79	PA	25
		SALEM	MADRONA HILL APTS	K	8/03/79	8/22/79	PA	19
		BEND	PROSSER PARK	K	8/03/79	8/20/79	PA	17
		EUGENE	DILLARD WOODS PUD	K	8/02/79	8/20/79	PA	18
		BEND	JUNIPER CREEK PROJ	K	8/02/79	8/21/79	PA	19
		WILSONVILLE	'T' NEIGHBOR - CHARBONN	K	8/02/79	8/21/79	PA	19
		LINCOLN CTY	HWY 101 NE 34TH ST	K	7/30/79	8/16/79	PA	17
		ALBANY	OUTFALL/DIFFUSER REPAIR	V	7/27/79	8/29/79	PA	33
		HERMISTON	HOLLI ADDITION	K	7/16/79	8/21/79	PA	36
		SALEM	BEAVER HILLS HO 1	K	7/16/79	8/21/79	PA	36
		SALEM	KOSTENBORDER	K	7/30/79	8/10/79	PA	11
		PHOENIX	CLFFLIN PROJ	K	7/02/79	8/01/79	PA	30
		SPFD	BEV PARK OVERFLOW RELIEF	L	8/13/79	8/23/79	PA	10

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division
(Reporting Unit)

August 1979
(Month and Year)

PLAN ACTIONS COMPLETED (3)

* County	* Name of Source/Project * /Site and Type of Same	* Date of * Action	* Action	* *
Wheeler	Fossil Landfill Existing Facility Operational Plan	8-7-79	Approval	*
Union	La Grande Landfill Existing Site Operational Plan	8-20-79	Conditional Approval	*
Multnomah	St. Johns Landfill Existing Facility Operational Plan Amendment	8-29-79	Approval	*

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MAR.3 (5/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division
(Reporting Unit)

August, 1979
(Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

	<u>Permit Actions Received</u>		<u>Permit Actions Completed</u>		<u>Permit Actions Pending*</u>	<u>Sources Under Permits</u>	<u>Sources Reqr'g Permits</u>
	<u>Month</u>	<u>FY</u>	<u>Month</u>	<u>FY</u>			
<u>Direct Sources</u>							
New	2	4	11	11	19		
Existing	1	2	6	6	13		
Renewals	1	5	14	22	69		
Modifications	1	3	5	14	13		
Total	5	14	36	53	114	1919	1951
<u>Indirect Sources</u>							
New	-	5	8	16	8		
Existing	-	-	-	-	-		
Renewals	-	-	-	-	-		
Modifications	-	1	0	0	1		
Total	-	6	8	16	9	138	

* Number of Pending Permits

Comments

18	To be drafted by Northwest Region
2	To be drafted by Willamette Valley Region
6	To be drafted by Southwest Region
0	To be drafted by Central Region
6	To be drafted by Eastern Region
1	To be drafted by Program Planning Division
3	To be drafted by Program Operations
12	Awaiting Next Public Notice
66	Awaiting the end of 30-day Noted Period
<u>114</u>	

A4160.B
MAR.5 (4/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division (Reporting Unit)	August, 1979 (Month and Year)
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PERMIT ACTIONS COMPLETED

*	County	*	Name of Source/Project	*	Date of	*	Action	*
*		*	/Site and Type of Same	*	Action	*		*
*		*		*		*		*

Direct Stationary Sources - 36

Baker	Blue Mountain Lime Co. File No. 01-0002	8/27/79	Cancelled
Clackamas	Portland Road & Driveway File No. 03-1768	7/13/79	Permit Issued
Columbia	Bergsoe Metal Corp. File No. 05-2574	7/13/79	Permit Issued
Curry	Brookings Energy Facility File No. 08-0039	7/30/79	Permit Issued
Douglas	Timberline Forest Product File No. 10-0028	7/31/79	Permit Issued
Douglas	DR2 Enterprises File No. 10-0121	7/31/79	Permit Issued
Jackson	Kogap Manufacturing File No. 15-0015	7/12/79	Permit Issued
Jackson	Medford Veneer Ply. Corp. File No. 15-0018	7/30/79	Permit Issued
Lincoln	Georgia Pacific Corp. File No. 21-0004	7/31/79	Permit Issued
Linn	US Bureau of Mines File No. 22-0095	7/31/79	Permit Issued
Linn	Morse Bros. Inc. File No. 22-0108	7/31/79	Permit Issued
Marion	Del Monte Corp. File No. 24-5837	7/31/79	Permit Issued
Port. Source	Tidewater Contractors Inc. File No. 37-0134	7/16/79	Permit Issued

A4157
MAR.6 (5/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division (Reporting Unit)	August, 1979 (Month and Year)
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PERMIT ACTIONS COMPLETED

*	County	*	Name of Source/Project	*	Date of	*	Action	*
*		*	/Site and Type of Same	*	Action	*		*
*		*		*		*		*

Direct Stationary Sources - 36, cont'd

Port. Source	Eucon Corporation File No. 37-0164	7/16/79	Permit Issued
Port. Source	Bryan C. Rambo Crushing Co. File No. 37-0217	7/31/79	Permit Issued
Port. Source	Continental Crushing File No. 37-0218	7/31/79	Permit Issued
Port. Source	Jones-Scott Co. File No. 37-0228	7/31/79	Permit Issued
Port. Source	M. A. Segale, Inc. File No. 37-0229	7/31/79	Permit Issued
Port. Source	Continental Crushing & LS File No. 37-0230	7/31/79	Permit Issued
Port. Source	Continental Crushing & LS File No. 37-0231	7/31/79	Permit issued
Columbia	Reichhold Chemicals Inc. File No. 05-2042	8/17/79	Permit Issued
Deschutes	Deschutes Memorial Garden File No. 09-0057	8/17/79	Permit Issued
Jackson	Tru-Mix Leasing Co. File No. 15-0002	8/17/79	Permit Issued
Jackson	Down River Forest Product File No. 15-0027	8/17/79	Permit Issued
Josephine	Southern Oregon Plywood File No. 17-0015	8/06/79	Permit Issued
Klamath	Gilchrist Timber Co. File No. 18-0005	8/17/79	Permit Issued

A4157
MAR.6 (5/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division
(Reporting Unit)

August, 1979
(Month and Year)

PERMIT ACTIONS COMPLETED

* County	* Name of Source/Project	* Date of	* Action	*
*	* /Site and Type of Same	* Action	*	*
*	*	*	*	*

Direct Stationary Sources - 36, cont'd

Linn	North Santiam Plywd. File No. 22-2522	8/17/79	Permit Issued
Linn	Brown Bros. Logging File No. 22-5009	8/17/79	Permit Issued
Marion	Miller Brewing Company File No. 24-9003	8/17/79	Permit Issued
Multnomah	Nicolai Door Mfg. File No. 26-2074	8/17/79	Permit Issued
Polk	Mico Independence X File No. 27-4047	8/17/79	Permit Issued
Umatilla	L. W. Vail Co., Inc. File No. 30-0003	8/17/79	Permit Issued
Yamhill	Sheridan Grain Co. File No. 36-7007	8/06/79	Permit Issued
Port. Source	Saxton Crushing Co., Inc. File No. 37-0189	8/08/79	Permit Issued
Port. Source	Arthur V. Miville Jr. File No. 37-0211	8/17/79	Permit Issued
Port. Source	Lopez Paving, Inc. File No. 37-0233	8/17/79	Permit Issued

A4157
MAR.6 (5/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division
(Reporting Unit)

August, 1979
(Month and Year)

PERMIT ACTIONS COMPLETED

* County	* Name of Source/Project * /Site and Type of Same	* Date of * Action	* Action	*
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Indirect Sources - 8

Clackamas	Safeco Insurance Company 554 Spaces File No. 03-7912	8/03/79	Final Permit Issued	
Marion	Chemeketa Community College Parking Lots B, C, & D 550 Spaces File No. 24-7008	8/02/79	Final Permit Issued	
Multnomah	Pacific Highway North Basin to I-5 File No. 26-7920	8/02/79	Final Permit Issued	
Multnomah	N. Columbia St. Apts. 199 spaces File No. 26-7921	8/31/79	Final Permit Issued	
Washington	Fred Meyer-Nyberg Road 947 spaces File No. 34-8032	8/15/79	Final Permit Issued	
Washington	S. W. 89th Avenue Pacific Highway/Nyberg Road File No. 34-7922	8/15/79	Final Permit Issued	
Marion	Pacific Highway (I-5) Battle Creek to Talbot Road File No. 34-7924	8/31/79	Final Permit Issued	
Marion	Front Street Bypass Pine - Church File No. 24-7925	8/31/79	Final Permit Issued	

A4160
MAR.6 (5/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality
(Reporting Unit)

August 1979
(Month and Year)

SUMMARY OF WATER PERMIT ACTIONS

	Permit Actions Received				Permit Actions Completed				Permit Actions Pending		Sources Under Permits		Sources Reqr'g Permits	
	Month		Fis. Yr.		Month		Fis. Yr.		* **		* **		* **	
	*	**	*	**	*	**	*	**	*	**	*	**	*	**
<u>Municipal</u>														
New	0	0	0	2	0	0	0	0	1	7				
Existing	0	2	0	2	0	0	0	0	8	2				
Renewals	2	0	3	0	1/6	0	13	0	27	3				
Modifications	1	0	1	0	0	0	0	0	4	0				
Total	3	2	4	4	6	0	13	0	40	12	245	85	254	94
<u>Industrial</u>														
New	2	8	2	8	1	0	2	0	5	12				
Existing	0	0	0	0	0	0	0	0	4	0				
Renewals	2	0	2	0	2/8	0	19	0	29	0				
Modifications	0	0	0	0	0	0	0	0	3	0				
Total	4	8	4	8	9	0	21	0	41	12	412	133	421	145
<u>Agricultural (Hatcheries, Dairies, etc.)</u>														
New	1	1	3/3/	1	3	1	0	1	0	2	3			
Existing	0	0	0	1	0	0	0	0	0	1				
Renewals	0	0	0	0	0	0	0	0	0	1				
Modifications	0	0	0	0	0	0	0	0	0	0				
Total	1	1	1	4	1	0	1	0	2	5	63	22	65	26
<u>GRAND TOTALS</u>	8	11	9	16	16	0	35	0	83	29	720	240	740	265

* NPDES Permits
** State Permits

1/ Includes two NPDES applications withdrawn
2/ Includes three NPDES permits cancelled
3/ Includes one NPDES application transferred to a State application

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality
(Reporting Unit)

August 1979
(Month and Year)

PERMIT ACTIONS COMPLETED (16)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Clackamas	Clackamas County Service District Kellogg Plant	8-10-79	NPDES Permit Renewed
Multnomah	Multnomah County Public Works Inverness Plant	8-10-79	NPDES Permit Renewed
Lane	Eugene Water & Electric Board Hayden Island Plant	8-10-79	NPDES Permit Renewed
Umatilla	City of Pendleton Sewage Disposal	8-10-79	NPDES Permit Renewed
Multnomah	Malarkey Roofing Portland Plant	8-10-79	NPDES Permit Renewed
Multnomah	Bird & Son, Inc. Roofing Materials	8-10-79	NPDES Permit Renewed
Multnomah	Portland School District Stephenson School	8-10-79	NPDES Permit Renewed
Multnomah	Kaiser Cement & Gypsum Cement Handling	8-10-79	NPDES Permit Renewed
Lane	Agripac, Inc. Junction City Plant	8-10-79	NPDES Permit Issued
Klamath	Weyerhaeuser Company Klamath Falls	8-31-79	NPDES Permit Renewed
Lincoln	Pixieland Corporation Sewage Disposal	8-79	Application Withdrawn
Wasco	U.S. Army - Corps of Engineers The Dalles Dam	8-79	Application Withdrawn
Lane	Weyerhaeuser Company Ore-Aqua Foods - Turner	8-79	Transferred from NPDES to State Permit Application

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality
(Reporting Unit)

August 1979
(Month and Year)

PERMIT ACTIONS COMPLETED

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Lane	Southern Pacific Transportation	8-79	NPDES Permit Cancelled
Linn	Publishers Paper Company Sweet Home	8-79	NPDES Permit Cancelled
Douglas	Champion International Roseburg Veneer	8-79	NPDES Permit Cancelled

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division
(Reporting Unit)

August 1979
(Month and Year)

SUMMARY OF SOLID AND HAZARDOUS WASTE PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sites Under Permits	Sites Reqr'g Permits
	Month	FY	Month	FY			
<u>General Refuse</u>							
New	-	-	0	-	4		
Existing	-	-	-	-	2		
Renewals	1	3	0	3	20		
Modifications	-	2	8	11	6		
Total	1	5	8	14	32	169	171
<u>Demolition</u>							
New	-	-	-	-	1		
Existing	-	-	0	1	-		
Renewals	0	1	-	-	1		
Modifications	-	-	5	5	0		
Total	0	1	5	6	2	21	21
<u>Industrial</u>							
New	-	-	0	-	3		
Existing	-	-	-	-	-		
Renewals	0	1	0	1	5		
Modifications	-	-	-	-	-		
Total	0	1	0	1	8	104	104
<u>Sludge Disposal</u>							
New	-	-	-	-	1		
Existing	-	-	-	-	1		
Renewals	-	-	-	-	-		
Modifications	-	-	-	-	-		
Total	0	0	0	0	2	12	13
<u>Hazardous Waste</u>							
New	-	-	-	-	-		
Authorizations	13	26	5	22	8		
Renewals	-	-	-	-	-		
Modifications	-	-	-	-	-		
Total	13	26	5	22	8	1	1
<u>GRAND TOTALS</u>	14	33	18	43	52	307	310

a
MQ6050
MAR.5S (4/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division (Reporting Unit)		August 1979 (Month and Year)			
<u>PERMIT ACTIONS COMPLETED</u>					
* County	* Name of Source/Project * /Site and Type of Same	* Date of * Action	* Action	* Action	* Action
<u>Domestic Waste Facilities (8)</u>					
Lake	Christmas Valley Existing Facility	8-1-79	Permit Amended		
Lake	Paisley Disposal Site Existing Facility	8-1-79	Permit Amended		
Coos	Myrtle Point Disposal Site Existing Facility	8-8-79	Permit Amended		
Coos	Powers Disposal Site Existing Facility	8-15-79	Permit Amended		
Lincoln	North Lincoln Disposal Site Existing Facility	8-20-79	Permit Amended		
Lincoln	Waldport Disposal Site Existing Facility	8-28-79	Permit Amended		
Curry	Nesika Beach Disposal Site Existing Facility	8-28-79	Permit Amended		
Curry	Brookings Disposal Site Existing Facility	8-28-78	Permit Amended		
<u>Demolition Waste Facilities (5)</u>					
Lake	Adel Disposal Site Existing Facility	8-1-79	Permit Amended		
Lake	Plush Disposal Site Existing Facility	8-1-79	Permit Amended		
Lake	Fort Rock Disposal Site Existing Facility	8-1-79	Permit Amended		
Lake	Silver Lake Disposal Site Existing Facility	8-1-79	Permit Amended		
Lake	Summer Lake Disposal Site Existing Facility	8-1-79	Permit Amended		
<u>Industrial Waste Facilities (0)</u>					
<u>Sludge Disposal Facilities (0)</u>					
a/SQ6050.A					

MAR.6 (5/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste
(Reporting Unit)

August 1979
(Month and Year)

HAZARDOUS WASTE DISPOSAL REQUESTS

CHEM-NUCLEAR SYSTEMS, GILLIAM CO.

Date	Type	Waste Description	Source	Quantity	
				Present	Future
Disposal Request Granted (4)					
Oregon (3)					
2	PCB transformers and capacitors		PUD	Several units	Periodic
10	Spent solvents		Furniture manufacturing	550 gals.	220 gals/yr.
17	Spent caustic solution		State agency	18 drums	0
British Columbia (1)					
20	Caustic sludge		Chemical plant	22,000 gals.	0

<u>TOTALS</u>	<u>LAST</u>	<u>PRESENT</u>
Settlement Action	9	5
Preliminary Issues	6	4
Discovery	4	4
To be Scheduled	4	1
To be Rescheduled	2	0
Hearing Scheduled	2	7
Hearing Rescheduled	0	3
Brief	1	0
Decision Due	3	6
Decision Out	1	0
Appeal to Commission	2	4
Appeal to Court of Appeals	1	1
Case closed	3	2
Holding	0	1
<u>TOTAL</u>	<u>40</u>	<u>38</u>

KEY

ACD Air Contaminant Discharge Permit
AQ Air Quality
AQ-NWR-76-178 Violation involving Air Quality occurring in Northwest Region in the year 1976; 178th enforcement action in that region for the year
CLR Chris Reive, Investigation & Compliance Section
Cor Wayne Cordes, Hearings Officer
CR Central Region
Dec Date Date of either a proposed decision of hearings officer or a decision by Commission
\$ Civil Penalty Amount
ER Eastern Region
Fld Brn Field Burning incident
RLH Robb Haskins, Assistant Attorney General
Hrngs Hearings Section
Hrng Rfrl Date when Investigation & Compliance Section requests Hearings Section to schedule a hearing
Hrng Rqst Date agency receives a request for hearing
VAK Van Kollias, Investigation & Compliance Section
LKZ Linda Zucker, Hearings Officer
LMS Larry Schurr, Investigation & Compliance Section
MWV Mid-Willamette Valley Region (now WVR)
MWR Midwest Region (now WVR)
NP Noise Pollution
NPDES National Pollutant Discharge Elimination System wastewater discharge permit
NWR Northwest Region
FWO Frank Ostrander, Assistant Attorney General
P At beginning of case number means litigation over permit or its conditions
PR Portland Region (now NWR)
PNCR Portland/North Coast Region (now NWR)
Prty All parties involved
Rem Order Remedial Action Order
Resp Code Source of next expected activity on case
SNCR Salem/North Coast Region (now WVR)
SSD Subsurface Sewage Disposal
SWR Southwest Region
T At beginning of case number means litigation over tax credit matter
Transcr Transcript being made of case
Underlined Different status or new case since last month contested case log
WVR Willamette Valley Region
WQ Water Quality
MF3071.B:F71

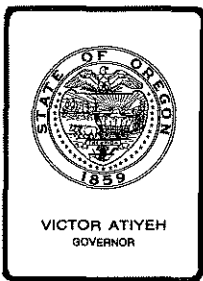
DEQ/EQC Contested Case Log

September 1979

Pet/Resp Name	Hrng Rqst	Hrng Rfrrl	DEQ or Atty	Hrng or Offcr	Hrng Date	Resp Code	Dec Date	Case Type & No.	Case Status
Davis et al	5/75	5/75	RLH	LKZ	5/76	Resp	6/78	12 SSD Permits	Settlement Action
Paulson	5/75	5/75	RLH	LKZ		Resp		02-SS-WVR-75-01 1 SSD Permit	Settlement Action
Faydrex, Inc.	5/75	5/75	RLH	LKZ	11/77	Hrgs		03-SS-SWR-75-02 64 SSD Permits	Reply brief filed 7/13/79; Decision Due <u>First rough draft prepared</u>
Mead and Johns et al	5/75	5/75	RLH	LKZ		All		04-SS-SWR-75-03 3 SSD Permits	<u>Awaiting dis- position of Faydrex</u>
PGE (Harborton)	2/76	2/76	RPU	LKZ		Prtys		01-P-AQ-PR-76-01 ACD Permit Denial	Extension to 09-30-79 for filing exceptions
Jensen	11/76	11/76	RLH	LKZ	12/77	Prtys	6/78	\$1500 Fld Brn 05-AQ-SNCR-76-232	Exceptions due Sept. 28 if settlement not <u>achieved</u>
Mignot	11/76	11/76	LMS	LKZ	2/77	Resp	2/77	\$400 06-SW-SWR-288-76	Exceptions due 9/5/79. Motion to <u>augment record before EQC at 9/21/79 meeting.</u>
Jones	4/77	7/77	LMS	Cor	6/9/78	Dept		SSD Permit 01-SS-SWR-77-57	<u>Dept's Exceptions due 9/10/79.</u>
Three D Corp	5/77	6/77	RLH	LKZ		Resp		04-WQ-SNCR-77-101 \$11,000 Total WQ Viol SNCR	<u>To be scheduled if Dept's settlement offer rejected by 8/31/79</u>
Wright	5/77	5/77	RLH	LKZ		Hrgs		\$75 03-SS-MWR-77-99	Record sent to Court of Appeals
Magness	7/77	7/77	LMS	Cor	11/77	Hrgs		\$1150 Total 06-SS-SWR-77-142	Decision Due. <u>Draft completed</u>
Southern-Pacific Trans	7/77	7/77	FWO	LKE		Prtys		\$500 07-NP-SNCR-77-154	Settlement Action Case closed 02-29-79, No Civil Penalty assessed
Grants Pass Irrig	9/77	9/77	RLH	LKZ		Prtys		\$10,000 10-WQ-SWR-77-195	Discovery
Zorich	10/77	10/77	FWO	Cor		Prtys		\$100 08-NP-SNCR-77-173	Settlement Action
Powell	11/77	11/77	RLH	Cor		Ptys		\$10,000 Fld Brn 12-AQ-MWR-77-241	Interim Order Mailed 08-09-79
Carl F. Jensen	12/77	1/78	RLH	LKZ	11/19/79	Prtys		\$18,600 Fld Brn 16-AQ-MWR-77-321	<u>Hearing scheduled</u>
Carl F. Jensen/ Elmer Klopfenstien	12/77	1/78	RLH	LKZ	11/19/79	Prtys		\$1200 Fld Brn 16-AQ-SNCR-77-320	<u>Hearing scheduled</u>
Wah Chang	1/78	2/78	RLH	LKZ		Prtys		\$5500 17-WQ-MWR-77-334	Hrng set tentatively for 09-19-79
Hawkins	3/78	3/78	FWO	LKZ	12/17/79	Hrgs		\$5000 15-AQ-PR-77-315	<u>Hearing set</u>
Hawkins Timber	3/78	3/78	FWO	LKZ	12/17/79	Resp		\$5000 15-AQ-PR-77-314	<u>Hearing set</u>
Wah Chang	4/78	4/78	RLH	LKZ		Prtys		16-P-WQ-WVR-2849-J NPDES Permit (Modification)	Preliminary Issues

Pet/Resp Name	Hrng Rqst	Hrng Rfrl	DEQ or Atty	Hrng Offcr	Hrng Date	Resp Code	Dec Date	Case Type & No.	Case Status
Wah Chang	11/78	12/78	RLH	LKZ		Prtys		08-P-WQ-WVR-78-2012-J	Preliminary Issues
Stimpson	5/78		FWO	LKZ	<u>7/24/79</u>	Hrgs		Tax Credit Cert. 01-T-AQ-PR-78-010	<u>Decision Due</u>
Vogt	6/78	6/78	LMS	Cor	11/8/78	Dept		\$250 Civil Penalty 05-SS-SWR-78-70	Decision Due
Hogue	7/78	7/79	LMS	LKZ	<u>10/11/79</u>	Hrng		15-P-SS-SWR-78	<u>Hearing scheduled</u> <u>Demurrer filed</u> <u>8/23/79</u>
Welch	10/78	10/78	RLH	LKZ		Dept		07-P-SS-CR-78-134	Discovery
Reeve	10/78		RLH	LKZ		Dept		06-P-SS-CR-78-132 & 133	Discovery
Bierly	12/78	12/78	VAK	LKZ		Resp		\$700 08-AQ-WVR-78-144	Settlement Action
Glaser	1/79	1/79	LMS	LKZ		Prtys		\$2200 09-AQ-WVR-78-147	Hearing Rescheduled for 10-02-79
Hatley	1/79	2/79	CLR	LKZ	<u>8/10/79</u>	Prtys		\$3250 10-AQ-WVR-78-156	<u>Decision due</u>
Roberts	2/79	3/79	CLR	LKZ	5/23/79	Hrgs		01-P-SS-SWR-79-01	DECISION mailed Case closed No appeal
Wah Chang	2/79	2/79	RLH	LKZ		Prtys		\$3500 12-WQ-WVR-78-187	Prelim Issues
TEN EYCK	12/78	8/79	LMS	LKZ		Prtys		02-P-SS-ER-78-06	Discovery
Loren Raymond	4/79	4/79	FWO	LKZ	<u>8/28/79</u>	Dept		02-P-SS-ER-79-02	<u>Decision due</u>
Martin, Leona	5/79	5/79	CLR	LKZ	<u>10/18/79</u>	Resp		\$250 04-SS-SWR-79-49	At Issue, <u>hrng.</u> Scheduled
Templin and Klem	6/79	6/79	CLR	LKZ	<u>9/26/79</u>	Hrgs		\$300 05-AQ-WVR-79-52	<u>Hrng Rescheduled</u>
Don Obrist, Inc.	7/79	7/79	RLH	LKZ				Solid Waste Permit Amendment 07-P-SW-213-NWR-79	Preliminary Issues
<u>Johnson, Melvin</u>	<u>6/79</u>				<u>10/5/79</u>			<u>\$100-19-SS-CR-77-35</u> <u>\$750-19-SS-PR-77-97</u>	<u>Hearing scheduled</u>

MF3071.A



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

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

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Addendum 1, Agenda Item C, October 19, 1979, EQC Meeting

TAX CREDIT APPLICATIONS

Director's Recommendation

It is recommended that the Commission take action to issue Pollution Control Facility Certificates to the following applicants (see attached review reports:

T-1080

T-1082

T-1086

Union Oil Company of California

Weyerhaeuser Company

Willamette Industries, Inc.

WILLIAM H. YOUNG

MJDowns:cs

229-6485

10/11/79

Attachments



Contains
Recycled
Materials

DEQ-46

AMENDED PROPOSED OCTOBER 1979 TOTALS

Air Quality	\$ 3,299,127
Water Quality	27,980
Solid Waste	101,605
Noise	<u>-0-</u>

CALENDAR YEAR TOTALS TO DATE

Air Quality	\$ 3,569,150
Water Quality	6,015,473
Solid Waste	1,826,466
Noise	94,176
	<u>\$11,505,265</u>

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Union Oil Company of California
Union Chemical Division
Box 604545
Los Angeles, CA 90060

The applicant owns and operates a bulk fertilizer handling facility at Portland.

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

2. Description of Claimed Facility

The facility described in this application includes four fabric filter dust collectors. The facility cost consists of:

Baghouses	\$ 42,596
Structural Steel	5,153
Ductwork	9,057
Electrical	11,297
Labor	106,771

Request for Preliminary Certification for Tax Credit was made on February 2, 1977, and approved on February 2, 1977.

Construction was initiated on the claimed facility in March 1977, completed in August 1977, and the facility was placed into operation in September 1977.

Facility Cost: \$174,874 (Accountant's Certification was provided).

3. Evaluation of Application

The baghouses control dust emissions from the screening operation, and from the material handling equipment. The equipment was required to control fugitive emissions by the Department.

The collectors have been inspected by the Department and have been found to be operating satisfactorily.

The value of the fertilizer collected in the collectors is less than the operating costs of the collectors. Therefore, 80% or more of the cost is allocable to air pollution control.

4. Summation

- a. Facility was constructed after receiving approval to construct and preliminary certification issued pursuant to ORS 468.175.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1) (a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility was required by the Department and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- e. The cost of operating the collectors exceeds the value of the material collected. Therefore, 80% or more of the cost is allocable to air pollution control.

5. Director's Recommendation

Based upon the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$174,874 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-1080R.

F. A. Skirvin:w
(503) 229-6414
October 9, 1979

T1080R

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Weyerhaeuser Company
Willamette Region - Paperboard Manufacturing
Tacoma, Washington

The applicant owns and operates a Kraft pulp and paper mill at Springfield, Oregon.

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

2. Description of Claimed Facility

The facility described in this application is the miscellaneous vent collection system. The facility cost consist of the following:

Hoods	\$332,497
Dampers	11,142
Ducts	147,190
Condensor	12,901
Fan	35,185
Hood Safety Latches	17,006
Pipes	30,494

Notice of Intent to Construct was made on March 24, 1974, and approved on April 16, 1974. Preliminary Certification for Tax Credit is not required.

Construction was initiated on the claimed facility on January, 1975, completed on July, 1975, and the facility was placed into operation on July, 1975.

Facility Cost: \$586,415 (Accountant's Certification was provided).

3. Evaluation of Application

The miscellaneous vent collection system collects odorous gases from various sources around the mill and converts them to the power boiler where they are burned and the odor eliminated. The Kraft mill regulation required that the "other" sources, such as washers and vacuum pumps, of Total Reduce Sulfur (TRS) be reduced to lowest practicable levels.

This system accomplishes this and has reduced TRS emissions by 345 pounds per day.

The Department has inspected the system and has found it operating efficiently.

The percent allocable to air pollution control is 80 percent or more, since there is no economic return from the installation.

4. Summation

- A. Facility was constructed after receiving approval to construct issued pursuant to ORS 468.175.
- B. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- D. The facility was required by the Department and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- E. The percent allocable to air pollution control is 80 percent or more, since there is no economic return from the facility.

5. Director's Recommendation

Based upon the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$586,415 with 80 percent or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-1082R.

F.A. Skirvin:n
(503) 229-6414
October 10, 1979
AN8352

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Willamette Industries, Inc.
Western Kraft Paper Group
Albany Mill Division
3800 First National Bank Tower
Portland, OR 97201

The applicant owns and operates Kraft Pulp and Paper Mill at Albany. Application was made for tax credit for an air pollution control facility.

2. Description of Claimed Facility

The facility described in this application is the modification of the No. 3 recovery boiler to a low odor boiler and installation of an electrostatic precipitator. The facility cost consists of:

Electrical	\$ 79,811.36
Controls	14,260.52
Pipe, Valves and Pumps	205,347.72
Economizer	1,068,473.23
Transfer Screw	12,746.85
Precipitator	948,985.55
Slurry Tank and Agitator	28,212.79

Request for Preliminary Certification for Tax Credit was made on November 30, 1976, and approved on March 7, 1977.

Construction was initiated on the claimed facility in July 1977, completed on May 9, 1978, and the facility was placed into operation on May 10, 1978.

Facility Cost: \$2,357,838.02 (Accountant's Certification was provided).

3. Evaluation of Application

This facility was modified because the Department required that if the No. 3 recovery boiler were to be restarted it would have to be converted to a low odor boiler and have a precipitator installed.

The facility has reduced Total Reduced Sulfur emissions by 95 percent and particulate emissions by 90 percent.

The Department has inspected the facility and has found it operating satisfactorily and in compliance with the permit limits.

The value of the additional chemicals recovered by the facility is not greater than the cost of operating the facility. Therefore, it is concluded that the facility was installed and is operated solely for air pollution control.

4. Summation

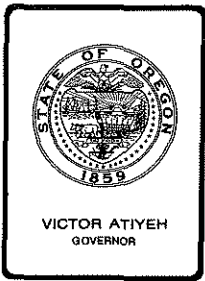
- a. Facility was constructed after receiving approval to construct and preliminary certification issued pursuant to ORS 468.175.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility was required by the Department and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- e. It was determined that 80 percent or more of the cost is allocable to pollution control, because the cost of operating the facility exceeds the value of the material recovered.

5. Director's Recommendation

Based upon the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$2,357,838.02 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-1086.

F. A. Skirvin:w
(503) 229-6414
October 9, 1979

T1086.R



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

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

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item C, October 19, 1979, EQC Meeting

TAX CREDIT APPLICATIONS

Director's Recommendation

It is recommended that the Commission take the following action:

1. Issue Pollution Control Facility Certificates to the following applicants (see attached review reports):

T-1110	Jeld-Wen, Inc.
T-1115	Oregon Metallurgical Corporation
2. Reissue Pollution Control Facility Certificates numbers 662 and 856 to reflect a change in company name (see attached review report).

WILLIAM H. YOUNG

MJDowns:cs
229-6485
10/4/79
Attachments



Contains
Recycled
Materials

PROPOSED OCTOBER 1979 TOTALS

Air Quality	\$	-0-
Water Quality		27,980
Solid Waste		101,605
Noise		-0-
	\$	<u>129,585</u>

CALENDAR YEAR TOTALS TO DATE

Air Quality	\$	3,569,150
Water Quality		6,015,473
Solid Waste		1,826,466
Noise		94,176
	\$	<u>\$11,505,265</u>

STATE OF OREGON - DEPARTMENT OF ENVIRONMENTAL QUALITY
Tax Relief Application Review Report

1. Applicant

JELD-WEN, Inc. dba Thomas Lumber Co.
P.O. Box 1329
Klamath Falls, Oregon 97601

The applicant owns and operates a sawmill, planing mill, door plant, fiberboard plant and millwork plant at Klamath Falls, Oregon.

Application was made for tax credit for a solid waste pollution control facility.

2. Description of Claimed Facility

The facility described in this application is a wood and bark hammer hog and related material handling equipment to hog and transport wood waste to the plant boiler for use as fuel. Claimed equipment includes:

- A. Jeffrey model 56WB Hammer Hog
- B. Toshiba 250 HP motor
- C. Delivery conveyor and hopper
- D. High pressure blower line
- E. Foundations and support, electrical, labor, etc.

Request for Preliminary Certification for Tax Credit was made July 12, 1978 and approved August 30, 1978.

Construction was initiated on the claimed facility during September 1978, completed December 31, 1978 and the facility was placed into operation between January 1, 1979 and April 30, 1979.

Facility Cost: \$101,605.29 (accountant's certification was provided).

3. Evaluation of Application

Prior to 1977, the solid waste from the plant site was stored and then open burned once or twice a year. In October 1977, the Environmental Quality Commission denied Jeld-Wen's request to open burn and directed the company to develop another method of solid waste disposal or utilization.

The claimed facility will grind plant wood waste to a size that can be handled in the company's hog fuel boiler. The facility includes equipment to transport the hogged wood waste to the boiler for steam production. The facility will eliminate the company's need to open burn or landfill wood waste.

4. Summation

- A. Facility was constructed under a preliminary certification of approval issued pursuant to ORS 468.175.
- B. Facility was constructed on or after January 1, 1973, as required by ORS 468.165(1)(c).
- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing solid waste.
- D. The facility is necessary to satisfy the intents and purposes of ORS Chapter 459 and the rules adopted under that Chapter.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$101,605.29, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number T-1110 .

William H. Dana:dro
229-5913
September 12, 1979

Application No. T-1115
Date October 2, 1979

STATE OF OREGON - DEPARTMENT OF ENVIRONMENTAL QUALITY
Tax Relief Application Review Report

1. Applicant

Company Name Oregon Metallurgical Corporation
Division (if any)
Address Box 580
City, State, Zip Albany, Oregon 97321

The applicant owns and operates a plant producing titanium metal products and ingots from titanium tetra chloride and scrap at 530 West 34th Street, Albany, Oregon.

Application was made for tax credit for water pollution control facility.

2. Description of Claimed Facility

The facility described in this application is an additional primary settling/equalization lagoon which will serve to maintain continuous capacity of the treatment system (two lagoons) while dredging solids. The earthen wall lagoon is 100 ft. wide by 430 ft. long by 8 ft. deep. The lagoon is served by a 42 inch by 9 ft. deep wet sump and pump and necessary piping and electrical.

Request for Preliminary Certification for Tax Credit was made July 19, 1978, and approved August 16, 1978. Construction was initiated on the claimed facility September 15, 1978, completed June 21, 1979, and the facility was placed in operation April 30, 1979, prior to final work.

Facility Cost: \$27,980.73 (Accountant's certification was provided.)

3. Evaluation of Application

The applicant claims with the facility the plant is able to operate within NPDES permit limits. Before installation treatment efficiency was degrading progressively. Treated waste water effluent is within permit limits.

4. Summation

- a. Facility was constructed under a Preliminary Certificate of Approval issued pursuant to ORS 468.175.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing water pollution.
- d. The facility was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- e. Applicant claims 100% of costs allocable to pollution control.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$27,980.73 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application number T-1115.

Charles K. Ashbaker:l
229-5325
October 2, 1979
WL4151

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

REQUEST FOR AMENDMENT OF POLLUTION CONTROL FACILITY CERTIFICATES

1. Certificate Issued to:

Hilton Fuel
8087 Blackwell Road
Central Point, Oregon 97205

The Pollution Control Facility Certificates were issued for solid waste facilities.

2. Discussion

On April 30, 1976 and December 16, 1977 the Department issued Pollution Control Facility Certificates numbers 662 and 856 respectively, to Hilton Fuel for various solid waste utilization equipment (see attached certificates).

On September 7, 1979 Mr. Raymond G. Hilton notified the Department that he had incorporated his business and requested that the Pollution Control Facility Certificates be amended to reflect the new name of his company--Hilton Fuel and Supply Company. Mr. Hilton also requested that his election of personal income tax at the time certificates 662 and 856 were issued be transferred to the corporation under Oregon Corporate Excise Tax regulations. Mr. Hilton was informed that his original election was irrevocable pursuant to ORS 468.170(5). (See attached letters.)

3. Summation

Pursuant to ORS 316.072, Certificates 662 and 856 should be amended to reflect the change in company name from Hilton Fuel to Hilton Fuel and Supply Company.

4. Director's Recommendation

Reissue Pollution Control Facility Certificates numbers 662 and 856 to Hilton Fuel and Supply Company. These reissued certificates only to be eligible for tax credit relief for the time remaining from the date of their first issuance.

MJDowns:cs
229-6485
10/4/79
Attachments

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY**POLLUTION CONTROL FACILITY CERTIFICATE**

Issued To: Hilton Fuel Raymond G. Hilton 3288 Old Military Road Central Point, Oregon 97501	As: Owner	Location of Pollution Control Facility: Central Point Jackson County
Description of Pollution Control Facility: The Hilton Fuel Company processes wood waste material into products with economic value and includes: Hauling equipment, Conveying equipment, hog equipment and Sawdust equipment.		
Date Pollution Control Facility was completed and placed in operation:		2/75
Actual Cost of Pollution Control Facility:		\$ 78,198.43
Percent of actual cost properly allocable to pollution controls: Eighty percent (80%) or more		

In accordance with the provisions of ORS 449.605 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "pollution control facility" within the definition of ORS 449.605 and that the facility was erected, constructed, or installed on or after January 1, 1967, and on or before December 31, 1978, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air or water pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 449 and regulations thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing solid waste.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

Signed _____

Title Chairman, EQC

Approved by the Environmental Quality Commission

on the 30th day of April 19 76

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 856
Date of Issue 12/16/77
Application No. T-929

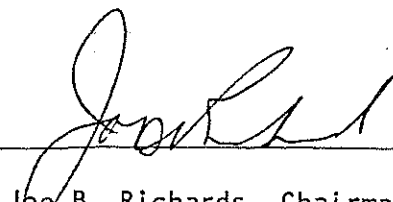
POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Hilton Fuel 8087 Blackwell Road Central Point, Oregon 97205	Location of Pollution Control Facility: Central Point, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: <p style="text-align: center;">Waste bark utilization facility</p>	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>2/15/77</u> Placed into operation: <u>2/77</u>	
Actual Cost of Pollution Control Facility: \$ <u>144,674.28</u>	
Percent of actual cost properly allocable to pollution control: <p style="text-align: center;">100%</p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

Signed 
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on
 the 16th day of December, 1977.

September 7, 1979

State of Oregon
Department of Environmental Quality
Post Office Box 1760
Portland, Oregon 97207

ATTN: Carol A. Splettstaszer

Dear Mrs. Splettstaszer:

I currently have two active Oregon Pollution Control Facility Certificates under which I have elected tax credit relief under personal income tax. The two certificates are No. 662, issued 4/30/76, and No. 856, issued 12/16/77. Both are registered in the name of Raymond G. Hilton, dba Hilton Fuel.

I have transferred the assets of my business, including the pollution control facilities, to a newly formed corporation, organized under the laws of Oregon, effective September 1, 1979. I am the sole shareholder of the corporation.

I herein request that the above referenced certificates be re-registered in the name of Hilton Fuel and Supply Company, (an Oregon Corporation), and the remaining tax relief be transferred to the corporation under Oregon Corporate Excise Tax regulations.

The address and all other conditions of the business remain unchanged.

If there is additional information required, please advise.

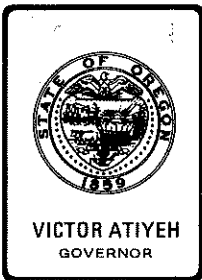


Raymond G. Hilton
8087 Blackwell Road
Central Point, Oregon 97502

RGH/mp

Management Services Div.
Dept. of Environmental Quality

R E C E I V E D
SEP 12 1979



Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

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

October 1, 1979

Raymond G. Hilton
8087 Blackwell Road
Central Point, OR 97502

In response to your letter of September 7, 1979, regarding transfer of your pollution control facility certificates numbers 662 and 856, please be advised that the election that you made of personal income tax relief at the time your facilities were certified is irrevocable. The notice of election form you filed at that time stated pursuant to ORS 469.170(5):

"(5) A person receiving a certificate under this section shall make a irrevocable election to take the tax relief under ORS 316.097 or 317.072 or the ad valorem tax relief under ORS 307.405, and shall notify the Commission...of his election. This election shall apply to the facility or facilities certified and shall bind all subsequent transferees."

At its meeting on October 19, 1979, the Environmental Quality Commission will be asked to take action to reissue your pollution control facility certificates in the name of Hilton Fuel & Supply Company. A new certificate reflecting that change will be sent to you.

Carol Splettstaszer
Management Services Division

CS:0
MO2267

October 16, 1979

Raymond G. Hilton
8087 Blackwell Road
Central Point, Oregon 97502

Dear Mr. Hilton:

Upon consultation with the Attorney General's Office, we have found that the statute I quoted in my October 1, 1979 letter to you could be interpreted to allow you to change your tax credit election per your September 7, 1979 request.

Therefore, after the Environmental Quality Commission approves your request for change of company name on October 19, 1979, you will be sent new Notice of Election forms for certificates 662 and 856. It will then be up to the Oregon Department of Revenue as to whether or not they will accept the change in election.

Sincerely,

Carol A. Splettstaszer
Management Services Division

/cs



Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. D, October 19, 1979, EQC Meeting

Request for Authorization to Conduct a Public Hearing to Consider Changes to OAR 340-12-050, Air Quality Schedule of Civil Penalties

Background

Senate Bill 488 authorized a maximum civil penalty of \$10,000 per each violation of air quality rules, permits, orders or laws. The current maximum in OAR 340-12-050 is \$500. The proposed changes to 340-12-050 would increase the maximum civil penalty to \$10,000 as authorized by Senate Bill 488.

ORS 468.130 authorizes the Commission to establish a schedule of civil penalties.

Alternatives and Evaluation

The legislative authorization to increase civil penalties for air quality violations corresponds to previously granted authorization for water quality violations. OAR 340-12-055, Water Pollution Schedule of Civil Penalties, allows for a maximum of \$10,000 for violation of permit conditions, rules or orders and up to \$20,000 for oil spills.

The Air Quality Division and Regional Operations have reviewed the proposed regulation and agree that the maximum civil penalty should be increased. Since the bill passed by the Legislature authorizes an increase in civil penalties, discussions with industry and the public have not been pursued.

The proposed changes would increase the maximum civil penalty for violations of permit conditions or Department or Commission orders and violations which result in the emission of air contaminants to \$10,000. The reference to violations of permit conditions has been added in the proposed rule.



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The minimum penalty in subsection (2) will be increased from \$25 to \$50 to correspond to the water quality minimum penalty for that type of violation.

The increase in the maximum civil penalty would allow the Department to assess a penalty which more nearly approximates the economic advantages of some violations.

In order to modify any Oregon Administrative Rule the Department must hold a public hearing preceded by public notice of the hearing.

Summation

1. The Legislature authorized an increase in the maximum civil penalties for air quality violations from \$500 to \$10,000 per day by amending ORS 468.140.
2. The Commission is authorized by ORS 468.130 to establish a schedule of civil penalties.
3. Increases in the maximum civil penalties will remove some economic incentives for violations.
4. In order to modify OAR 340-12-050, Air Quality Schedule of Civil Penalties so that it will be consistent with 1979 Legislative action, a public hearing is required to receive testimony on the proposed changes.

Directors Recommendation

Based upon the Summation, it is recommended that the Commission authorize public hearings to take testimony on the proposed changes to OAR 340-12-150, Air Quality Schedule of Civil Penalties.



William H. Young

F. A. Skirvin:ne
229-6414
September 25, 1979
Attachments: Draft Rule (OAR 340-12-050)
AN8263.2

Attachment 1

Air Quality Schedule of Civil Penalties

Proposed Rule Changed

340-12-050 - In addition to any liability, duty, or other penalty provided by law, the Director, or the director of a regional air quality control authority, may assess a civil penalty for any violation pertaining to air quality by service of a written notice of assessment of civil penalty upon the respondent. The amount of such civil penalty shall be determined consistent with the following schedule:

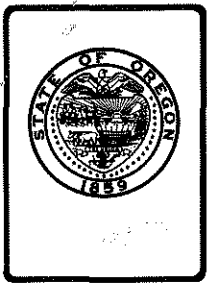
(1) Not less than one hundred dollars (\$100) nor more than [~~five-hundred dollars-(\$500)~~] ten thousand dollars (\$10,000) for violation of an order of the Commission, Department, or regional air quality control authority.

(2) Not less than [~~twenty-five-dollars-(\$25.00)~~] fifty dollars (\$50.00) nor more than [~~five-hundred-dollars-(\$500)~~] ten thousand dollars (\$10,000) for [~~any-violation-which-causes,-contributes-to,-or-threatens-the-emission-of-an-air-contaminant-into-the-outdoor-atmosphere:-~~] :

(a) A violation of an Air Contaminant Discharge Permit or Indirect Source Permit;

(b) Any violation which causes, contributes to, or threatens the emission of an air contaminant into the outdoor atmosphere.

(3) Not less than twenty-five dollars (\$25.00) nor more than [~~three-hundred dollars-(\$300)~~] seven thousand five hundred dollars (\$7,500) for any other violation.



Environmental Quality Commission

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

To: Environmental Quality Commission
From: Director
Subject: Agenda Item E , October 19, 1979 EQC Meeting

Request for Authorization to Conduct a Public Hearing on Proposed
Amendments to Exempt Forestry Operations from Noise Control
Regulations for Industry and Commerce, OAR 340-35-035

Background

Senate Bill 523 was adopted by the 1979 Oregon Legislature. This bill revised the Oregon Noise Control Act, ORS Chapter 467, and exempts "agricultural operations" and "forestry operations" from the provisions of the Act.

Forestry operations are defined in Senate Bill 523 as an activity related to the growing or harvesting of forest tree species on forest land as defined in subsection (1) of ORS 526.324. To conform the Commission's administrative rules with State law, it is necessary to amend OAR 340-35-035 to exempt forestry operations.

Noise created by agricultural activities is presently exempt from the noise control rules under OAR 340-35-035(5)(1).

Evaluation

The proposed amendments contained in the attachment would exempt forestry operations as defined in Senate Bill 523. These amendments would only exempt the growing and harvesting of forest tree species on forest lands. The proposed amendment is not intended to exempt wood product activities beyond those specified in Senate Bill 523.

The present exemption for agricultural activities contained in the administrative noise control rules for industrial and commercial sources appears to adequately conform with the new law.

Summation

Drawing from the background and evaluation presented in this report, the following facts and conclusions are offered:

1. Senate Bill 523 adopted by the 1979 Legislature provides a statutory exemption from the Commission's noise control rules for agricultural and forestry operations.



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2. Sounds created by agricultural activities are presently exempt from the noise rules for industry and commerce.
3. Forestry operations, meaning the growing or harvesting of forest tree species on forest land, are not exempt from existing noise control rules.
4. Proposed amendments, as shown in the attachment, are required to conform the statutory revisions with Commission rules.

Director's Recommendation

Based upon the Summation, it is recommended that the Commission authorize a public hearing to take testimony on the proposed amendments to OAR 340-35-035.

Bill

WILLIAM H. YOUNG

John Hector:pw
(503)229-5989
September 28, 1979

Attachments

- Appendix A - Draft Statement of Need for Rulemaking
- Appendix B - Draft Hearings Notice
- Appendix C - Draft Rule Amendments
- Appendix D - Senate Bill 523
- Appendix E - ORS 526.305 et seq.

DRAFT STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended action to adopt a rule.

1. Legal Authority

This rule may be amended pursuant to ORS 467.030.

2. Need for the rule.

1979 Legislative amendments to ORS Chapter 467 place existing rules in conflict with the statutes. These proposed rule amendments would conform the rule with the statute.

3. Principal documents relied upon in this rulemaking:

- a) 1979 Legislative Session; Senate Bill 523
- b) ORS 526.305 et seq.

Draft Hearings Notice

* NOTICE OF PUBLIC HEARING *

DEQ PROPOSES TO EXEMPT FORESTRY OPERATIONS FROM NOISE CONTROL REGULATIONS

The Oregon Department of Environmental Quality (DEQ) is proposing amendments that would exempt forestry operations from noise control regulations. A hearing on the matter will be held

WHAT IS DEQ PROPOSING?

Interested parties should request complete copies of the proposed rule amendments. The amendment would exempt sounds caused by the growing or harvesting of forest tree species on forest lands from DEQ noise control regulations.

WHO IS AFFECTED BY THIS PROPOSAL?

Those growing and harvesting forest trees may be affected. Persons residing near forestry operations are affected by noise levels.

HOW TO SUBMIT YOUR INFORMATION

Written comments should be sent to the Department of Environmental Quality, Noise Control Section, PO BOX 1760, Portland, OR 97207 and should be received by Oral and written comments may be offered at the following public hearings:

WHERE TO OBTAIN ADDITIONAL INFORMATION

Copies of the rules may be obtained from:

Department of Environmental Quality
Noise Control Section
PO Box 1760
Portland, OR 97207
(503) 229-5989

LEGAL REGERENCES FOR THIS PROPOSAL

This proposal amends OAR 340-35-035. This rule amendment is proposed under authority of ORS 467.010 et seq.

This proposed rule does not appear to conflict with Land Use Goals

Public comment on any land use issue involved is welcome and may be submitted in the same fashions as are indicated in testimony in this Public Notice of Hearing.

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

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

After public hearing, the Commission may adopt a rule identical to the proposed rule, adopt a modified rule on the same subject matter, or decline to act.

The Commission's deliberation should come in late January or February as part of the agenda of a regularly scheduled Commission meeting.

Department of Environmental Quality
October 1979

Proposed Amendments to
Noise Control Regulations
for Industry and Commerce
OAR 340-35-035

New language is underlined and deleted language is [bracketed].

- 340-35-035 (5) Exemptions: Except as otherwise provided in subsection (1)(b)(B)(ii), the rules in section 35-035(1) shall not apply to:
- (a) Emergency equipment not operated on a regular or scheduled basis.
 - (b) Warning devices not operating continuously for more than 5 minutes.
 - (c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles.
 - (d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Pub. L. 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in section 17(c)(2) of the Act.
 - (e) Sounds created by bells, chimes, or carillons.
 - (f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time.
 - (g) Sounds that originate on construction sites.
 - (h) Sounds created in construction or maintenance of capital equipment.
 - (i) Sounds created by lawn care maintenance and snow removal equipment.
 - (j) Sounds generated by the operation of aircraft and subject to preemptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not preemptively regulated by the federal government.
 - (k) Sounds created by the operation of road vehicle auxiliary equipment complying with the noise rules for such equipment.
 - (l) Sounds created by agricultural activities[, other than silviculture.]
 - (m) Sounds created by the growing or harvesting of forest area tree species on legally designated forest lands.

Senate Bill 523

Sponsored by Senators HANNON, HANLON, SMITH, THORNE, Representatives
BYERS, GILMOUR, JONES

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure as introduced.

Exempts agricultural and forestry operations from noise control statutes. Defines "agricultural operations" and "forestry operations."

Declares emergency, effective on passage.

A BILL FOR AN ACT

Relating to noise control; and declaring an emergency.

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

SECTION 1. Section 2 of this Act is added to and made a part of ORS chapter 467.

SECTION 2. (1) Agricultural operations and forestry operations are exempt from the provisions of this chapter.

(2) As used in this section:

(a) "Agricultural operations" means the current employment of land and buildings on a farm for the purpose of obtaining a profit in money by raising, harvesting and selling crops or by the feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural operations or any combination thereof including the preparation and storage of the products raised for man's use and animal use and disposal by marketing or otherwise by a farmer on such farm.

(b) "Forestry operations" means an activity related to the growing or harvesting of forest tree species on forest land as defined in subsection (1) of ORS 526.324.

SECTION 3. This Act being necessary for the immediate preservation of the public peace, health and safety, an emergency is declared to exist, and this Act takes effect on its passage.



management and use and forest harvest and utilization as they relate to the economic and social well-being of the people of Oregon.

[1961 c.297 §2(2); 1965 c.253 §31; 1965 c.433 §1; 1975 c.96 §1]

526.230 [Repealed by 1961 c.297 §12]

526.235 State forest nursery; sale of nursery stock; disposition and use of sales receipts. (1) A state forest nursery may be operated by the forester and the board to provide forest tree seedlings for the reforestation of forest land. Such nursery program is to provide for the growth, care and maintenance of nursery stock and for the sale of such stock to private, state and other public owners of forest land.

(2) Each year the forester shall determine the costs of nursery operation and shall offer nursery stock for sale to forest owners at prices that will recover actual costs.

(3) All revenues derived from the operation of the forest nursery shall be credited to the State Forestry Department Account.

(4) Notwithstanding ORS 291.238, the moneys credited to the State Forestry Department Account under subsection (3) of this section, shall be continuously available on a revolving basis exclusively for forest nursery purposes.

[1971 c.59 §2]

526.240 [Repealed by 1961 c.297 §12]

526.245 Excess revenues from operation of state forest nursery during 1969-1971 biennium; disposition; use. Upon July 1, 1971, and notwithstanding ORS 291.238, any revenues derived from the operations of the forest nursery in excess of nursery expenditures during the 1969-1971 biennium shall be credited to the State Forestry Department Account and shall be continuously available on a revolving basis exclusively for forest nursery purposes.

[1971 c.59 §3]

Note: 526.245 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 526 by legislative action. See the Preface to Oregon Revised Statutes for further explanation.

526.250 [Amended by 1953 c.324 §2; 1957 c.83 §10; repealed by 1961 c.297 §12]

526.260 [1953 c.376 §3; repealed by 1961 c.297 §12]

526.270 [1953 c.332 §3; repealed by 1961 c.297 §12]

COUNTY FOREST LAND CLASSIFICATION

526.305 Definitions for ORS 526.305 to 526.370. As used in ORS 526.305 to 526.370, unless the context requires otherwise:

(1) "Committee" means a county forest land classification committee.

(2) "Governing body" means the board of county commissioners or county court of a county, as the case may be.

[1965 c.253 §33]

526.310 County classification committees. (1) The governing body of each county containing forest land may establish a county forest land classification committee of five persons, of whom one shall be appointed by the forester, one by the Director of Oregon Agricultural Experiment Station and three by the governing body. Of the members appointed by the governing body, one must be an owner of forest land or a representative thereof, and one must be an owner of grazing land or a representative thereof. Each appointing authority shall file with the forester the name of its appointee or appointees, and the persons so named shall constitute the committee for the county. Each member of the committee at all times is subject to replacement by the appointing authority, effective upon the filing with the forester by that authority of written notice of removal and the name of the new appointee.

(2) The committee shall elect from among its members a chairman and a secretary and may elect or employ other officers, agents and employes, as it finds advisable. It shall adopt rules governing its organization and proceedings and the performance of its duties, and shall keep written minutes of all its meetings.

(3) The governing body of the county may provide for the committee and its employes such accommodations and supplies and such county funds not otherwise appropriated as the governing body finds necessary for the proper performance of the committee's functions. The members of the committee shall receive no compensation for their services but the governing body may reimburse them for their actual and necessary travel and other expenses incurred in the performance of their duties.

[Amended by 1965 c.253 §34; 1967 c.429 §30]

526.320 Investigation of forest lands by committees; determination of adaptability for particular uses. Upon establishment of a committee under ORS 526.310, the

committee shall investigate and study all forest land within its county and determine which of the land is suitable primarily for the production of timber, which is suitable primarily for joint use for timber production and the grazing of livestock, and which is suitable primarily for grazing or other agricultural use. Such determination shall take into consideration climate, topography, elevation, rainfall, soil conditions, roads, extent of fire hazards, recreation needs, scenic values, and other physical, economic and social factors and conditions relating to the land involved.

[Amended by 1965 c.253 §35; 1967 c.429 §31]

526.324 Classification of forest land by committee; publication. (1) Upon the basis of its investigation and determination under ORS 526.320, a committee shall assign all forest land within its county to one of the following classes:

(a) Class 1, timber class, includes all forest land primarily suitable for the production of timber.

(b) Class 2, timber and grazing class, includes all forest land primarily suitable for joint use for timber production and the grazing of livestock, as a permanent or semipermanent joint use, or as a temporary joint use during the interim between logging and reforestation.

(c) Class 3, agricultural class, includes all forest land primarily suitable for grazing or other agricultural use.

(2) The committee first shall adopt a preliminary classification and upon its completion shall cause notice thereof to be published once a week for two consecutive weeks in a newspaper of general circulation in the county and to be posted in three public places within the county. The notice shall state the time and place for hearing or receiving objections, remonstrances or suggestions as to the proposed classification and the place where a statement of the preliminary classification may be inspected.

[1965 c.253 §37; 1967 c.429 §32]

526.328 Hearing; final classification; reclassification. (1) The committee shall hold a public hearing at the time and place stated in the notice published under subsection (2) of ORS 526.324, or at such other time and place as the hearing may then be adjourned to, to receive from any interested persons objections, remonstrances or suggestions relating to the proposed classification. Following the hearing the committee may make such changes in the preliminary classi-

fication as it finds to be proper, and thereafter shall make its final classification.

(2) All action by the committee in classifying or reclassifying forest land shall be by formal written order which must include a statement of findings of fact on the basis of which the order is made, and must include a map showing the classifications or reclassifications made. The original of the order shall be filed immediately with the county clerk of the county, who shall maintain it available for public inspection. A copy of the order certified by the secretary of the committee shall be sent to the board.

[1965 c.253 §38]

526.330 [Repealed by 1965 c.253 §153]

526.332 Appeal. (1) Any owner of land classified under ORS 526.328 or 526.340 who is aggrieved by the classification may, within 30 days after the date of the order making the classification, appeal to the circuit court for the county. The appeal shall be taken by serving the notice of appeal on the secretary of the committee or, if the classification was made under ORS 526.340, on the State Forester, and by filing such a notice with the county clerk.

(2) The appeal shall be tried by the circuit court as a suit in equity.

[1965 c.253 §39]

526.340 Classification by State Forester. (1) In the event no classification of forest land is made by a committee within a county in which such land is situated because no committee was appointed or, if appointed, a committee did not act or acted in a manner inconsistent with law, the board may authorize the forester to make the study, investigation and determinations and to make the preliminary and final classifications that were otherwise to be made by a committee, and in the manner provided for a committee, including formal written order and findings of fact.

(2) Classifications by the forester have the same force and effect as though made by a committee for that county. However, classifications made by the forester cease to be effective if replaced by classifications made pursuant to ORS 526.328 by the appropriate committee.

[Amended by 1965 c.253 §40]

526.350 Policy in administering forest and fire laws; contracts for care of forest land; fire control; burning permits. (1) All forest laws relating to forest land classified

pursuant to ORS 526.328 or 526.340, and all rules promulgated under such laws, shall be so administered as best to promote the primary use for which that land is classified. Any contract by the board or the State Forester with any forest protective association or agency for the care of any such forest land shall provide that the care shall be in accord with the provisions of this section relating to that land.

(2) It shall be the policy of the board and the forester as to all forest land classified in:

(a) Class 1, to give primary consideration to timber production and reforestation, in preference to grazing or agricultural uses, not excluding, however, recreation needs or scenic values.

(b) Class 2, to give equal consideration and value to timber production and the development or maintenance of grazing, either as a temporary use for the interim between logging and reforestation or as a permanent or semipermanent joint use.

(c) Class 3, to give primary consideration to the development of grazing or agriculture, in preference to timber production.

(3) The forester, on forest land classified pursuant to ORS 526.328 or 526.340, shall administer the forest laws of this state in accordance with the policy stated in this section as it applies to the land involved.

[Amended by 1965 c.253 §41]

526.360 State Forester to assist in developing forest land for agricultural uses; supervision of burning on class 2 and 3 lands; refusal of supervision or permit; liability for damage from burning. (1) The board and the forester shall assist to the extent possible in developing, for grazing or agricultural uses, all forest land classified pursuant to ORS 526.328 or 526.340 for such uses, including the burning of brush or other flammable material for the purpose of:

(a) Removing a fire hazard to any property;

(b) Preparing seed beds; or

(c) Removing obstructions to or interference with the proper seeding or agricultural or grazing development or use of that land.

(2) Upon request of the owner or the agent of the owner of any forest land classified as class 2 or 3, the forester shall supervise burning operations thereon for any of the purposes stated in subsection (1) of this section. The owner or his agent shall supply such assistance as the forester may require while there is

danger of the fire spreading. The forester may, however, refuse to supervise burning or to issue any burning permit when such burning would create an unwarranted hazard.

(3) When any burning for any of the purposes stated in subsection (1) of this section on forest land classified as class 2 or 3 is started under the supervision of and supervised by the forester, no person shall be liable for property damage resulting from that burning unless the damage is caused by his negligence.

[Amended by 1965 c.253 §42; 1967 c.429 §33]

526.370 Seeding agreements as condition of supervision of burning on class 2 or 3 lands; seeding at owner's expense on breach; lien; foreclosure. (1) The forester may, as a condition precedent to supervising of any burning of class 2 or 3 lands, as provided in ORS 526.360, require the owner or his agent in control of the land involved to agree in writing to seed properly the land over which the burning operation is to be conducted, with such seed or seed mixtures as may be suitable for that area.

(2) In the event of failure by the owner or his agent to seed the property in accordance with such agreement, the governing body of that county may cause the seeding to be done and the cost thereof may be recovered by the governing body from the owner or his agent by legal action. The cost shall constitute a lien upon the land seeded. The governing body shall cause a written statement and notice of such lien, describing the land and stating the amount of the cost, to be certified under oath and filed in the office of the county clerk within 90 days following the completion of reseeded. The lien may be foreclosed, within six months after such filing, by suit, in the manner provided by law for foreclosure of liens for labor and material.

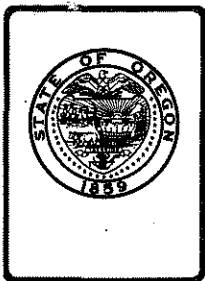
[Amended by 1965 c.253 §43]

526.410 [Repealed by 1953 c.138 §2]

526.420 [Repealed by 1953 c.139 §2]

PROCESSING AND EXPORTING LOGS

526.805 Processing of timber to be sold by state or local governments. All timber, except white (Port Orford) cedar timber, sold by the State of Oregon, or any of its political subdivisions, shall be primarily processed in the United States unless the State Forestry Department has issued, pursuant to ORS 526.815, a permit for the pro-



Environmental Quality Commission

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

Victor Atiyeh
Governor

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. F, October 19, 1979 EQC Meeting

Request for Authorization to Conduct a Public Hearing
on Amending Oregon Administrative Rules Governing the
Construction and Use of Waste Disposal Wells (OAR 340-44)

Background and Problem Statement

Currently, Oregon Administrative Rule (OAR) 340-44 prohibits the use of any waste disposal well after January 1, 1980. Although the Department has made significant progress toward eliminating the use of waste disposal wells, there will be many properties in Central Oregon utilizing waste disposal wells after January 1, 1980. The owners of most of these properties will have no other waste disposal options other than abandoning the property.

Statutory authority for amending these rules is set forth in Oregon Revised Statute (ORS) 468.020 which requires the Commission to "adopt such rules and standards as it considers necessary and proper in performing the functions vested by law in the Commission." ORS 468.705 grants the Commission controlling authority for the prevention of water pollution (ORS 468.715). Subparagraph (2) of ORS 468.715 directs the Department to "take such action as is necessary for the prevention of new pollution and the abatement of existing pollution."

Alternatives and Evaluation

One alternative to resolving this problem would be to force property owners to either find an approvable alternative to disposing of wastes down disposal wells or abandon the property. This alternative is obviously impractical because it would be impossible to find an approvable alternative for all existing disposal wells by January 1, 1980. This would then leave the owners with only the undesirable option of abandoning their property.

A second alternative is to not amend the regulation, but ignore enforcing the January 1, 1980 date for eliminating waste disposal wells. This alternative is undesirable because the Department and Commission could be sued and forced to enforce our regulation. Also, ignoring the January 1, 1980 date would cultivate disrespect for the Oregon Administrative Rules.



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The third option is to amend the rules and extend the date for eliminating waste disposal wells. This option would allow the Department not only to extend the date, but also it will allow the Department to institute various new strategies for phasing out all waste disposal wells.

Prior to drafting proposed regulations, the Department held a public hearing in Bend on September 10, 1979. The purpose of the hearing was to gather public input on how the regulations should be modified. Approximately 15 to 20 people attended the hearing. At the time this agenda item was drafted, the proposed regulations had not been reviewed by water quality staff or legal counsel. Such reviews are intended to occur prior to a public hearing notice being issued.

The proposed rules at this time are intended to extend the January 1, 1980 date to allow those waste disposal wells scheduled for sewer in Bend to continue until the new Bend sewage treatment plant is completed. The proposed rules would require that all waste disposal wells inside cities or sanitary districts, but not scheduled for sewerage, be eliminated by January 1, 1983. Existing waste disposal wells outside cities would be allowed, but their use would be restricted and would be abandoned when a sewer became available, if structure is modified or if there is a change or expansion in the use of the property. The proposed rules would lead to eventual elimination of those waste disposal wells in the urban areas, but would allow those in rural areas to continue operation unless they plug or otherwise fail or there is a change in the use of the property. This approach is acceptable to the Department and is based upon the belief that a few scattered disposal wells in rural areas should not cause a significant environmental impact.

Summation

1. Current regulations (OAR 340-44) prohibit the use of waste disposal wells after January 1, 1980.
2. This date cannot possibly be achieved and there will be waste disposal wells operating after January 1, 1980.
3. The existing rules (OAR 340-44) should be amended to extend the January 1, 1980 date and to institute new strategies for the eventual elimination of waste disposal wells.

Director's Recommendation

It is recommended that the Commission authorize a public hearing to take testimony on amending Oregon Administrative Rules 340-44 which govern the construction and use of Waste Disposal Wells.

Bill

William H. Young

Richard J. Nichols:dmc
382-6446
September 28, 1979

Division 44

Construction and Use of Waste Disposal Wells

Definitions

.340-44-005 As used in these regulations unless the context requires otherwise:

(1) "Person" means the state, any individual, public or private corporation, political subdivision, governmental agency, municipality, industry, copartnership, association, firm, trust, estate or any other legal entity whatsoever.

(2) "Sewage" means the water-carried human or animal waste from residences, buildings, industrial establishments or other places, together with such ground water infiltration and surface water as may be present. The admixture with sewage as above defined of industrial wastes or wastes shall also be considered "sewage" within the meaning of these regulations.

(3) "Wastes" means sewage, industrial wastes, agricultural 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.

(4) "Waste Disposal Well" means any natural or man-made hole, crevasse, fissure or opening in the ground which is used or is intended to be used for disposal of sewage, industrial, agriculture or other wastes; provided, however, as used in these regulations waste disposal wells do not include conventional seepage beds, tile fields, cesspools or landfills constructed and operated in accordance with [State Board of Health]

Department of Environmental Quality rules and regulations or waste treatment or disposal ponds or lagoons constructed or operated under a permit issued by the [State Sanitary Authority] Director.

[(5) "Approved Permit Issuing Agency" means a city, county, or other governmental entity which has been specifically designated by the State Sanitary Authority as the agency authorized to issue pursuant to these regulations permits for the construction, modification, maintenance or use of waste disposal wells within a designated geographical area.]

(5) "Authorized Representative" means the staff of the Department of Environmental Quality or of the local unit of government performing duties for and under agreement with the Department of Environmental Quality.

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

(7) "Construction" includes installation or extension.

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

(9) "Director" means the Director of the Department of Environmental Quality.

(10) "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 and bacteria, parasites, toxic chemicals, and radioactive isotopes. A malfunctioning or surfacing subsurface sewage

disposal system constitutes a public health hazard.

(11) "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.

(12) "Owner" means any person who alone, or jointly, or severally with others:

(a) Has legal title to any lot, dwelling, or dwelling unit, or,

(b) Has care, charge, or control of any real property as agent, executor, executrix, administrator, administratrix, trustee, leasee, or guardian of the estate of the holder of legal title; or

(c) Is the contract purchaser of real property.

Each such person as described in (b) and (c) above, thus representing the holder of legal title, is bound to comply with the provisions of these minimum standards as if he were the owner.

(13) "Municipal sewerage system" means any part of a sewage collection, transmission, or treatment facility that is owned and operated by an incorporated city.

(14) "Acknowledged Comprehensive Land Use Plan" means any land use plan that has been acknowledged by the Land Conservation and Development Commission.

(15) "Noncontact cooling water" means water that has been used solely for cooling purposes in a manner such that the water contains no more contaminants (except heat) after its use than when it was withdrawn from its natural source.

(16) "Certificate of Adequacy" means a written document issued by the Director or his authorized representative which certifies that continued or expanded use of the waste disposal well is consistent with the regulations established in Oregon Administrative Rules Chapter 340, Division 44.

(17) "Standard subsurface sewage disposal system" means a drainfield disposal system that complies with the requirements of Oregon Administrative Rules 340-71-020 and 340-71-03.

(18) "Municipal sewer service area" means an area which has been designated by an incorporated city for sewer service and for which preliminary sewer planning has been completed.

(19) "Municipality" means an incorporated city only.

Policy

340-44-010 Whereas the discharge of untreated or inadequately treated sewage or wastes to waste disposal wells and particularly to waste disposal wells in the lava terrane of Central Oregon constitutes a threat of serious, detrimental and irreversible pollution of valuable ground water resources and a threat to public health, it is hereby declared to be the policy of the State Sanitary Authority to restrict, regulate

or prohibit the further construction and use of waste disposal wells in Oregon and to phase out completely the use of waste disposal wells as a means of disposing of untreated or inadequately treated sewage or wastes as rapidly as possible in an orderly and planned manner.

Construction or use of Waste Disposal Wells

[Prohibited] Restricted

340-44-015 (1) After the effective date of those regulations, no person shall construct or place in operation any waste disposal well for the disposal of sewage without first obtaining a permit for said construction or operation of the waste disposal well from [an approved permit issuing agency] the Department or its authorized representative.

[(2) After the effective date of these regulations, no person shall construct or place in operation any waste disposal well for the disposal of sewage from a system serving more than 25 families or 100 people or of wastes other than sewage without first obtaining a permit from the State Sanitary Authority.]

[(3) After January 1, 1975, no person shall maintain or use any waste disposal well for the disposal of sewage or wastes without a currently valid permit from an approved permit issuing agency or the State Sanitary Authority which specifically authorizes said maintenance or use.]

[It is the intent of this sub-section to phase out, by January 1, 1975 the use of waste disposal wells except for those which are scheduled to be replaced by sewers in accordance with an approved plan and timeschedule, and those

which are operated under specific permit from the State Sanitary Authority pursuant to section 340-44-045 of those regulations.1

(2) After January 1, 1983, use of waste disposal wells for disposing of sewage is prohibited except if the disposal well is outside the boundaries of an incorporated city, sanitary district, or county service district, if the closest point of the building using the disposal well is greater than 100 feet from a municipal sewerage system, and if connection to the sewerage system does not constitute violation of any acknowledged comprehensive land use plan or any of Oregon's State Wide Land Use Goals as determined by the Director.

(3) After January 1, 1981, use of a waste disposal well for disposing of wastes is prohibited except for (a) those disposal wells disposing of sewage as allowed by Oregon Administrative Rule 340-44-015(2) and (b) those disposal wells which dispose of only non-contact cooling water and which are operating under a valid Water Pollution Control Facilities Permit issued by the Director.

(4) Within 90 days following written notification that sewer service is available to a parcel of land containing or using a waste disposal well for disposal of wastes, the owner of that parcel shall make connection to the sewer and shall abandon the existing septic tank and plug the disposal well in accordance with Oregon Administrative Rules 340-71-018(3) and 340-44-040.

(5) Construction and use of new waste disposal wells is prohibited except those new waste disposal wells that meet the following conditions:

(a) The waste disposal well shall be constructed and operated in accordance with Section 340-44-050 of these regulations.

(b) The waste disposal well shall be constructed and operated in compliance with a valid Water Pollution Control Facilities Permit issued by the Director and shall be used solely for disposal of non-contact cooling water; or

(c) The waste disposal well shall be constructed and operated only inside the City of Bend and shall only serve property located inside the City of Bend; and

(A) The waste disposal well shall be constructed only under authority of a permit issued by the Director or his authorized representative; and

(B) The Director or his authorized representative has evidence that assures the waste disposal well is an interim system that shall be abandoned within ninety (90) days after completion of the new Bend sewage treatment plant; and

(C) The Director or his authorized representative shall not issue a permit to construct a waste disposal well after the new Bend sewage treatment plant is completed or after December 31, 1980, whichever occurs first; and

(D) Waste disposal wells shall not be constructed closer than five hundred (500) feet from a natural stream or lake; and

(E) Waste disposal wells shall not be constructed greater than one hundred (100) feet deep.

(F) Waste disposal wells designed to dispose of waste quantities greater than twelve hundred (100) gallons per day shall not be closer than one quarter mile (1/4) mile from a

domestic water well. If the design waste quantity is twelve hundred (1200) gallons per day or less, the waste disposal well shall not be closer than one thousand (1000) feet from a domestic water well.

(G) A permit to construct a waste disposal well shall not be issued if the Director or his authorized representative determines that the waste disposal well has the potential to cause significant degradation of public waters or create a public health hazard.

(6) Without first obtaining a Certificate of Adequacy issued by the Director or his authorized representative, no person shall modify any structure or change or expand any use of a structure or property that utilizes a waste disposal well. A Certificate of Adequacy shall be issued if:

(a) The property cannot qualify for a standard subsurface sewage disposal system excluding the reserve area requirement; and

(b) The property is inside a designated, municipal sewer service area; and,

(c) The owner of the property and the municipality having jurisdiction over the municipal sewer service area shall enter into a written agreement. The agreement shall include the owner's irrevocable consent to connect to the municipal sewerage service when it becomes available and to not remonstrate against formation of and inclusion into a local improvement district if such a district is deemed necessary by the municipality to finance sewer construction to the property; and

(d) The structure is a single family dwelling that is less than one hundred (100) feet from a municipal sewerage system. The modification of the structure shall not be for the purpose of converting its use to a commercial establishment or multiple-unit dwelling; or

(e) The structure is not a single family dwelling, is not closer than 300 feet from a municipal sewerage system, and the proposed modification of the structure shall not create an increased waste flow; or

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

Repairs of Existing Waste Disposal Wells

340-44-017 (1) Without first obtaining a Waste Disposal Well Repair Permit from the Director or his representative, no person shall repair or attempt to repair a plugged or otherwise failing waste disposal well.

(2) The Director or his authorized representative shall not issue a Waste Disposal Well Repair Permit and shall require connection to a municipal sewerage system if, for a single-family dwelling the failing waste disposal well is within one hundred (100) feet from the municipal sewerage system or if, for other than a single-family dwelling, the failing waste disposal well is with three hundred (300) feet from the municipal sewerage

system.

(3) The Director or his authorized representative shall not issue a Waste Disposal Well Permit if the property can, in the judgment of the Director or his authorized representative, successfully accommodate a drainfield in a manner approved by the Director or his authorized representative and shall abandon the waste disposal well. The Director or his authorized representative may waive the requirement to install a drainfield if a municipality provides written commitment that it will provide sewers to the property within one (1) year and if the failing waste disposal well can be repaired or operated such that a public health hazard is not caused.

(4) A Disposal Well Repair Permit shall be a written document and shall specify those methods by which the waste disposal well may be repaired. Possible methods for repair shall include, but not be limited to, introduction of caustic, use of explosives, or deepening the waste disposal well. Deepening the waste disposal well shall be limited to a maximum depth of one hundred (100) feet and shall only be permitted if:

(a) The property served by the failing waste disposal well shall be inside a recognized urban growth boundary; and

(b) There shall be a written agreement between the owner of the property and the municipality having jurisdiction over the urban growth boundary. The written agreement shall include the property owner's irrevocable consent to connect to a sewer when it becomes available and to abandon the waste disposal well. The agreement shall also include the owner's irrevocable consent to participate in the formation and be included in a

local improvement district if the municipality determines that such a district is necessary to finance extension of sewer to the property.

Schedules for Eliminating Waste Disposal Wells Inside Incorporated Cities, Sanitary Districts, and County Service Districts

340-44-019 Prior to January 1, 1981, incorporated cities, sanitary districts, and county sanitary districts that contain waste disposal wells inside their boundaries shall submit a plan to the Director that includes (1) an inventory and map of existing waste disposal wells inside its boundary by January 1, 1983.

Issuance of Permits Without Sanitary Authority Approval Prohibited

340-44-020 After the effective date of these regulations, no person shall issue permits for the construction, modification, maintenance or use of waste disposal wells unless they are at the time of issuance designated by the [State Sanitary Authority] Director as the approved permit issuing agency for the area for which the permit is sought.

Statutory Authority:

Hist: Filed 5-15-69 as SA 41

[Waste Disposal Well Permit Areas]

[340-44-025 Permits for construction, modification, maintenance or use of waste disposal wells may be issued only in those designated geographical areas for which a city, county or district, legally authorized to provide sewerage services for the area, complies with the following conditions:

[(1) Maintains on file with the Sanitary Authority all currently approved sewerage program including a plan and time schedule for providing collection, treatment and disposal of wastes.]

[(a) The time schedule must be designed to provide an approved sewerage system within the shortest time possible and unless it can be demonstrated to be nonfeasible shall at least comply with the following:]

[(A) Qualified consulting engineer to be hired by not later than July 1, 1969.]

[(B) Preliminary engineering report including a detailed financing plan and construction schedule to be submitted to the Sanitary Authority by not later than January 1, 1971.]

[(C) Start construction of the sewerage system by not later than August 1, 1971, after obtaining approval from the Sanitary Authority of detailed plans and specifications.]

[(D) Complete construction of the approved sewerage system by not later than January 1, 1980.]

[(2) Submits to the State Sanitary Authority, during the month of January each year, annual reports which demonstrate that reasonable progress is being made in implementing the approved sewerage program.]

Statutory Authority:

Hist: Filed 5-15-79 as SA 41

Abandonment and Plugging of Waste Disposal Wells

340-44-040 (1) A waste disposal well upon discontinuance or use or abandonment shall immediately be rendered completely inoperable by plugging and sealing the hole to prevent the well from being a channel allowing the vertical movement of water and a possible source of contamination of the ground water supply.

(2) All portions of the well which are surrounded by "solid wall" formation shall be plugged and filled with cement grout or concrete.

(3) The top portion of the well must be effectively sealed with cement grout or concrete to a depth of at least 18 feet below the surface of the ground, or wherever this method of sealing is not practical, effective sealing must be accomplished in a manner approved in writing by the [State Sanitary Authority or the authorized permit issuing agency if functioning.] Director or his authorized representative.

Statutory Authority:

Hist: Filed 5-15-69 as SA 41

[Construction or Use of Waste Disposal Wells Prohibited After
January 1, 1980]

Sewage

[340-44-045 [After January 1, 1980, it shall be unlawful for any person to construct, maintain or use waste disposal wells for disposal of sewage or wastews unless said wastes have been previously treated by methods approved by the Sanitray Authority and further such treated wsastes shall be discharged to waste disposal wells only if specifically approved and authorized by the Sanitary Authority.] [It is intended that this section will permit consideration for approval by the Sanitary Authority of waste disposal to deep injection wells, constructed and operated in accordance with a carefully engineered program, and for disposal to waste disposal wells of and from large, efficiently-operated, municipal or county sewage treatment plants where continuous and effective surveillane and control of waste treatment and discharge can be assured so as to fully safeguard water quality and the public health and welfare.]

Statutory Authority:

Hist: Filed 5-15-69 as SA 41

Use of Waste Disposal Wells for Disposal of Treated Sewage

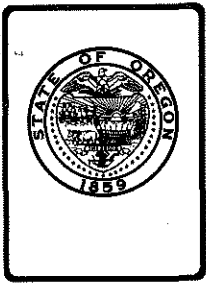
340-44-050 (1) The Environmental Quality Commission may permit the use of a waste disposal well for disposal of treated sewage if:

(a) Said treated sewage shall be treated by methods and to minimum levels approved by the Commission; and

(b) Said treated sewage shall be discharged to waste disposal wells only if specifically approved and authorized by the Commission; and

(c) The Commission shall determine that no other method of disposal other than waste disposal well is reasonably or practically available.

(2) It is intended that this section will permit consideration for approval by the Commission of sewage disposal to deep injection wells, constructed and operated in accordance with carefully engineered program, and for disposal to waste disposal wells of adequately treated and disinfected effluents from large, efficiently operated, municipal or county sewage treatment plants where continuous and effective surveillance and control of waste treatment and discharge can be assured so as to fully safeguard water quality and the public health and welfare.



Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. G , October 19, 1979, EQC Meeting

Request for Authorization to Conduct Public Hearings
on the Question of Amending Administrative Rules
Governing Subsurface and Alternative Sewage Disposal,
OAR 340-71-037, by adding a new Section (4), Sand Filters

Background and Problem Statement

Chapter 189 Oregon Laws 1979, (House Bill 2680), adopted by the Oregon State Legislature, 1979 Session, requires the Commission to adopt rules permitting the installation of the recirculating sand filter, or variations thereof, as a standard alternative to the septic tank and drainfield. Rules are required to be adopted by January 1, 1980. This Legislation further requires the adopted rules to provide standards for construction, installation, maintenance and periodic inspection of sand filter systems, consistent with public health and safety and protection of the waters of the state.

The Director appointed a task force consisting of Department staff, contract county staff, and private industry representatives, to develop rules for Commission consideration. After several months' effort the task force has completed its work. The proposed rules are now ready for public hearings.

Alternatives and Evaluation

There appears to be no alternative to rule adoption considering legislative mandate.

Rules allowing use of sand filters as an alternative sewage system are in the best interests of the state.



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Summation

The Legislature has mandated rules for sand filter sewage systems not later than January 1, 1980.

A task force has developed rules that are ready for public hearings.

Director's Recommendation

Based upon the summation, it is recommended that the Commission authorize public hearings to take testimony on the question of amending the rules for alternative systems, OAR 340-71-037, by adding a new Section (4), Sand Filters.

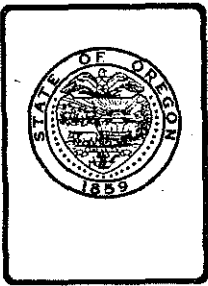


William H. Young

Attachments:

1. Draft Statement of Need for Rulemaking
2. Draft Hearing Notice
3. Draft Land Use Consistency Statement
4. Draft Rule 340-71-037(4)

T. Jack Osborne/Mark Ronayne:l
229-6442
October 3, 1979
XL4142.1



Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

Prepared: 10/1/79
Meeting Dates
Portland: 11/1/79
Eugene: 11/5/79
Medford 11/1/79
Bend 11/1/79

NOTICE OF PUBLIC HEARING

A CHANCE TO BE HEARD ABOUT

WHETHER THE ENVIRONMENTAL QUALITY COMMISSION (EQC) SHOULD
ADOPT ADMINISTRATIVE RULES THAT ALLOW SAND FILTERS AS A
STANDARD ALTERNATIVE TO THE SEPTIC TANK AND DRAINFIELD

Chapter 189 Oregon Laws 1979 (House Bill 2680), adopted by the Oregon State Legislature, 1979 Session, requires the EQC to adopt rules permitting the installation of the recirculating sand filter, or variations thereof, as a standard alternative to the septic tank and drainfield, not later than January 1, 1980. This Legislation further requires the adopted rules to provide standards for construction, installation, maintenance and periodic inspection of sand filter systems, consistent with public health and safety and protection of the waters of the state.

WHAT IS THE DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) PROPOSING?

The DEQ is proposing that the EQC adopt permanent rules amending OAR 340-71-037 by adding a new Section (4), which will contain standards for construction, installation and maintenance of sand filter systems, as well as design and site criteria for such systems. The adoption of this proposal by the EQC will allow applications for sand filter systems to be processed in the same manner as present alternative systems.

WHO IS AFFECTED BY THIS PROPOSAL?

All residents or landowners in the state who anticipate building where the method of sewage disposal would be an on-site system and where the site would not qualify for a standard septic tank and drainfield. Many sites denied a standard system are expected to qualify for a sand filter system.

HOW TO PROVIDE YOUR INFORMATION:

Information may be provided by any interested person. Written comments should be sent to Mark Ronayne, Department of Environmental Quality, Box 1760, Portland, Oregon 97207, and should be received by November 5, 1979.



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Oral or written comments may be offered at the following rule making hearings:

Portland November 1, 1979, 1 p.m.
Oregon State Department of Fish and Wildlife
506 Southwest Mill

Eugene November 5, 1979 7 p.m.
Harris Hall, Lane County Courthouse
125 East Eighth

Medford November 1, 1979 1:30 p.m.
Room 300, Medford City Council Chamber
411 West Eighth

Bend November 1, 1979 7 p.m.
State Office Building Conference Room
2150 Northeast Studio Road

WHERE TO OBTAIN ADDITIONAL INFORMATION:

Additional information may be obtained from any local DEQ office or from Mark Ronayne at the above address, or by telephone, 229-6442.

AUTHORITY FOR PUBLIC HEARINGS:

These public hearings are being conducted under authority of ORS 454.625.

FURTHER PROCEEDINGS:

After public hearings, The Environmental Quality Commission may adopt rules identical to those proposed or adopt modified rules on the same subject matter. The Commission's deliberations should come as a part of the regularly scheduled monthly Commission meeting, in December, 1979.

MPR:1
XL4145.1

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended action to adopt a rule.

Proposed Amendment to OAR 340-71-037, Rules
for Sand Filter Alternative Sewage Systems

- A. Legal Authority for rules governing subsurface and alternative sewage disposal is ORS 454.625. Authority for these proposed rules is Chapter 189 Oregon Laws 1979.
- B. The need for rulemaking is based upon the fact that Chapter 189 Oregon Laws 1979, (House Bill 2680), adopted by the Oregon State Legislature, 1979 Session, requires the Environmental Quality Commission (EQC) to adopt rules permitting the installation of the recirculating sand filter, or variations thereof, as a standard alternative to the septic tank and drainfield, not later than January 1, 1980. This Legislation further requires the adopted rules to provide standards for construction, installation, maintenance and periodic inspection of sand filter systems, consistent with public health and safety and protection of the waters of the state.

The proposed rules contain provisions that meet legislative intent and thus meet the need for rulemaking.

- C. Principal documents relied upon are:
 - 1. Chapter 189 Oregon Laws 1979
 - 2. Management of Small Waste Flows, U.S. Environmental Protection Agency, EPA-600/2-78-173, September 1978

These documents are available from the Department of Environmental Quality, Box 1760, Portland, Oregon 97207.

- D. Fiscal Impact--Fiscal impact will fall principally upon the Department of Environmental Quality and its contract county agents; however, it is expected that this extra workload will be absorbed within existing staff allocations and within existing budget limitations. Applications are expected to be processed in a similar manner to that for existing alternative systems.

Mark Ronayne
229-6442
XL4143

LAND USE CONSISTENCY STATEMENT
for
Proposed Rules for Sand Filter Alternative Sewage Systems

The proposals described herein appear to be consistent with statewide planning goals. These proposals appear to conform with Goal Number 6 (Air, Water and Land Resources Quality). The proposals do not relate to Goal Number 11 (Public Facilities and Services). There is apparently no conflict with other goals.

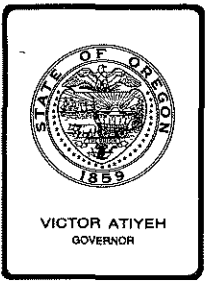
With regard to Goal 6, the proposals provide for standards for construction, installation, maintenance and periodic inspection of sand filter sewage disposal systems, consistent with public health and safety and protection of the waters of the state.

Public comment on these proposals is invited.

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

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

MPR:1
XL4144



Environmental Quality Commission

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Note:

DEQ staff is currently incorporating Task Force recommendations into a draft set of rules which will go to public hearing. The draft package with diagrams and tables will be distributed at the October 19, 1979 Environmental Quality Commission meeting.

October 11, 1979



Contains
Recycled
Materials

TASK FORCE REPORT

Proposed Rules Regarding Sand Filtration Treatment

and

Associated Disposal Methods

Prepared at the Request

of

William H. Young

Director

Oregon Department of Environmental Quality

to Assist in Implementing

An Act of the 1979 Oregon Legislative Assembly

Chapter 189 Oregon Laws

October 11, 1979

For the purpose of sand filter rules, the following definitions shall apply:

DEFINITIONS

Medium sand	A mixture of sand containing at least twenty-five (25) percent by weight sand ranging from one-quarter (0.25) to one-half (0.5) millimeter and less than twenty-five (25) percent by weight of soil material smaller than [twenty-five (25) one-quarter] (0.25) millimeter.
Pressure distribution lateral	Piping and fittings in pressure distribution systems which distribute septic tank or other treatment unit effluent to filter material through small diameter orifices.
Pressure distribution manifold	Piping and fittings in a pressure distribution system which supply effluent from pressure transport piping to pressure distribution laterals.
Pressure distribution system	Any system designed to uniformly distribute septic tank or other treatment unit effluent under pressure in an absorption facility or sand filter.
Pressure transport piping	Piping which conveys septic tank or other treatment unit effluent to a pressure distribution manifold by means of a pump.
Sand filter	A sand filled bed which maintains an unsaturated condition for aerobic filtration and treatment of septic tank or other treatment unit effluent.
Sand filter system	The combination of septic tank or other treatment unit, dosing tank, effluent pump(s) and controls, piping and fittings, absorption facility or effluent reuse method used to treat sewage.

Saprolite	Weathered material underlying the soil that grades from soft, thoroughly decomposed rock to, but not including, hard bedrock. It has rock structure instead of soil structure.
Standard sand filter	A filter with a two (2) foot deep medium sand bed, designed to filter and biologically treat septic tank or other treatment unit effluent from a pressure distribution system at an application rate of one and twenty-three hundredths (1.23) gallons per square foot sand surface area per day.

BACKGROUND

DEQ appointed a citizen task force in May, 1979 to propose draft sand filter system rules covering system siting, construction, operation and maintenance. Draft rule suggestions for a standard sand filter are based on filter treatment information gathered from experimental systems studied in Oregon and sand filter research conducted at the University of Wisconsin. The Task Force emphasized a sand filtration process demonstrated to be the most apt to reliably produce an effluent which will maintain the public's health and prevent significant degradation of state water.

The Task Force established the following guidelines for system evaluation and rule suggestion development:

1. Sand filter systems proposed for adoption must have demonstrated performance characteristics within Oregon or comparable evaluation programs.
2. Initial alternative sand filter systems should be as free of sophisticated maintenance requirements as possible.
3. State or contract county involvement with the operation of sand filters after construction should be kept to a minimum.

4. Effluent discharged from sand filters should be encouraged for reuse through:
 - a. Land (surface) application (irrigation) or;
 - b. Shallow subsurface distribution.
5. Sand filter systems should offer a viable alternative to many sites where standard septic tank drainfield system installation is prohibited.
6. Wherever possible existing rules within Chapter 340 regarding subsurface and alternative systems should be utilized for sand filter systems.
7. With supplemental procedures and some training, existing administrative procedures for permit issuance by the Department of Environmental Quality and contract county personnel will be used to implement sand filter rules.
8. Because of the statutory deadline of January 1, 1980, the Task Force was not able to completely address all sand filter alternatives. Areas for additional rule development consideration will be suggested to DEQ.
9. The education of individuals using sand filter systems must be provided by permit issuing agencies through a owner's manual and appropriate pamphlets.
10. Rule adoption by January 1, 1980 based on information currently available should not stifle sand filtration technology in experimental applications.

This report is arranged according to areas of major significance to rule development.

ISSUE

Legislative mandate that the sand filter treatment process be adopted by January 1, 1980 as an alternative to the septic tank and disposal field systems was given to the Department of Environmental Quality. Site criteria for placement should recognize the effluent quality and sand filter systems performance reliability.

DISCUSSION

Current rules regarding septic tank-drainfield are based on soil characteristics which recognize a level of treatment for septic effluent. In most cases soils adequate for septic effluent treatment are soils that are amongst the most agriculturally productive in Oregon. Many areas of marginally productive soils exist which are desirable for residential, commercial and industrial development, but cannot be developed with conventional septic tank-drainfield systems. The effluent quality produced by some sand filters offers potential for the development of less productive, marginal soils and would reduce competition for development on productive soils. The Task Force recognized Department of Environmental Quality rules are bound by land-use regulatory requirements of LCDC and local planning authorities. The proposed rules address only the technical requirements of sand filter systems. The Task Force felt it was important to recognize the beneficial aspects of the proposed rules through allowing increased on-site development alternatives. Physical site criteria deviate from the rules in Chapter 340 for standard septic tank-drainfield systems in recognition of sand filter system effluent quality.

TASK FORCE RECOMMENDATION

The following recommendations are suggested for placement of sand filter systems.

1. Any site that meets the criteria defined in Chapter 340-71-030 should be acceptable for sand filter-drainfield or shallow sub-surface irrigation trench use.

2. Land disposal of effluent by irrigation from approved sand filters should be accepted under OAR 340-71-037(2).

3. Any site proposed for shallow subsurface trench irrigation or standard disposal trench development which does not meet all criteria in OAR 340-71-030(1) should be permitted provided sufficient area exists for disposal system construction and the following conditions can be met:
 - a. Where the highest level attained by a temporary water table would be eighteen (18) inches or more below ground surface; for systems requiring serial distribution; or twelve (12) inches or more below ground surface for systems requiring equal distribution. Temporary groundwater levels shall be determined pursuant to methods contained under OAR 340-71-030(1).

 - b. Where the highest level attained by a permanent water table would be equal to or more than distances specified below:

<u>Soil Groups</u>	<u>Minimum Separation Distance from Bottom of Effective Sidewall</u>	<u>Minimum Separation Distance from Natural Soil Surface</u>
Gravels, sand, loamy sand, sandy loam	24"	48"
Loam, silt loam, sandy clay, loam, clay loam	18"	42"
Silty clay loam, silty clay, clay, sandy clay	12"	36"

- (1) Disposal trenches in gravels, sand, loamy sand in permanent water table or permanently perched water table areas should be fed by a low pressure distribution system.

- (2) Permanent water tables or permanently perched water tables shall be determined in accordance with methods contained in Chapter 340-71-030.

- (3) Where twelve (12) inches or more natural soil occur over fractured bedrock or saprolite diggable with a backhoe so that a standard twenty-four (24) inch deep trench can be installed.
- (4) Where slope is less than thirty (30) percent.

ISSUE

Disposal field sizing must be adequate to accommodate effluent discharged from sand filters.

DISCUSSION

While preliminary evidence exists which indicates effluent discharged by sand filters does not produce disposal trench matting and sealing at the same rate as effluent discharged from a standard septic tank, the Task Force lacked sufficient data to suggest reductions for disposal trench sizing. The Task Force suggests standardizing drainfield sizing on the basis of the soil texture groupings identified under permanent water table site criteria. The Task Force felt reduction in drainfield size may be acceptable on certain sites and should be allowed by the Department. For most sites, standard drainfield sizing should be used routinely until sufficient analysis of existing disposal trench absorption rates would allow adjustment in seepage area.

TASK FORCE RECOMMENDATION

The following minimum areas should be considered for disposal field sizing where systems will be used:

<u>Soil Groups</u>	<u>Minimum Sq. Ft. Effective Sidewall Seepage Area Required per One-hundred Fifty (150) Gallons Sewage Flow</u>
Gravels, sand, loamy sand, sandy loam	200
Loam, silt loam, sandy clay loam, clay loam	250
Silty clay loam, silty clay, clay, sandy clay	300

The Department may approve a seepage area smaller than the minimum effective sidewall stated where reducing seepage area can be demonstrated to achieve disposal of sand filter effluent.

ISSUE

Prevention of groundwater contamination by chemical constituents of sand filter effluent must be considered when designing disposal or reuse systems.

DISCUSSION

The Task Force discussed methods of preventing or limiting surface and groundwater degradation by sand filter effluent and concluded:

1. Current regulations for disposal field installation do not provide adequate groundwater protection in rapidly permeable soils.
2. No State guidelines on design standards have been adopted for groundwater protection.
3. Research exists which provides a conservative standard that will prevent groundwater degradation.

Based on the Task Force's findings, the following rules should be adopted.

Waste Load Design:

1. Notwithstanding minimum setbacks required under OAR 340-71-020(2), effluent discharged by sand filter systems in areas where permanent

water tables appear within limits established under this section shall be limited to the equivalent of four-hundred fifty (450) gallons of sewage per day per acre

a. Exceptions may be granted where:

- (1) A split waste system is proposed for lots of record existing prior to January 1, 1974. A lot must have sufficient area to accommodate the gray water sand filter system based upon a design flow of two hundred (200) gallons per day per single family residence.
- (2) The groundwater is degraded and specified as no longer developable by the State Department of Water Resources.
- (3) A detailed flow net analysis and hydrogeological study indicates loading in rates exceeding four-hundred fifty (450) gallons per day per acre would not increase nitrate-nitrogen concentration in the groundwater above five (5) mg/l.

ISSUE

Propose rules are needed for a standard sand filter system which would have broad application throughout Oregon. The system must be reliable, easily constructed and inspected by existing regulatory personnel and have minimum maintenance requirements.

DISCUSSION

The sand filter system that currently has sufficient testing to warrant rule adoption is classified primarily by effluent loading characteristics. The Task Force proposes the intermittent sand filter be adopted as Oregon's standard sand

filter system. Intermittent filters operate reliably, produce high quality effluent, require minimum maintenance and are relatively easy to construct and inspect. The Task Force felt other sand filter designs might also be acceptable, but due to potential design and construction complexity and routine maintenance requirements, these systems would require design approval on a case-by-case basis prior to construction permit issuance. The following rules for sand filter design and construction are recommended for adoption.

1. Sand filter systems shall be limited to flows of six hundred (600) gallons or less per day.
2. A sewage flow of four-hundred fifty (450) gallons per day shall be used in determining the minimum sand surface area required for a single family dwelling combined waste stream sand filter.
3. Flows of two hundred (200) gallons per day shall be used for computing the minimum sand surface area required for a standard single family dwelling gray water sand filters.
4. Minimum filter surface area. The sand filter shall have sufficient area to absorb one and twenty-three hundredths (1.23) gallons septic tank effluent per day.
5. Sand filter materials and construction. Sand filter materials and construction shall meet the following:
 - a. Filter container, piping, sand, gravel, gravel cover and soil crown material shall be constructed in accordance with minimum specifications indicated in Diagrams and unless otherwise authorized by the Department or the contract agent.
 - b. Filters shall not be placed in areas of questionable land form stability.

- c. Filters shall be placed over a stable leveling base.
- d. Septic tanks shall comply with all requirements under 340-71-025 and appendix A unless otherwise stated hereunder:
 - (1) All septic tanks used for sand filter systems shall be provided with a lidded twenty-four (24) inch or greater diameter riser located over the septic tank inlet which extends to the finish ground surface. The ground surface shall slope away from the top of the riser access lid to prevent surface water from entering the septic tank.
 - (2) The septic tank inlet shall be vented by a one (1) inch hole. If a tee is used it shall be hubbed cast iron or other material accepted by the Department.
 - (3) In areas of high groundwater, septic tanks shall be water tested to insure watertightness.
- e. Dosing tanks shall be watertight and manufactured with concrete, fiberglass or other materials accepted by the Department
 - (1) Dosing tanks shall be constructed and reinforced to withstand all loads imposed on walls and bottoms.
 - (2) All dosing tanks shall have a minimum volumetric capacity of ninety-four (94) gallons per vertical foot.
 - (3) The minimum liquid capacity of the dosing tank shall be equal to or greater than the projected daily sewage flow or four-hundred seventy (470) gallons, whichever is

greater. The liquid depth used in calculating the liquid capacity of the dosing tank shall be measured from the invert of the inlet.

- (4) The dosing tank shall have a liquid storage capacity of at least one-hundred twenty-five (125) gallons between the alarm level and the influent invert.
- (5) Dosing tanks shall be placed or constructed over a stable leveling base.
- (6) In areas of high groundwater, dosing tanks shall be tested to insure watertightness.
- (7) Dosing tanks shall be provided with a lidded twenty-four (24) inch or greater diameter riser which extends to the finish ground surface. The ground surface shall slope away from the top of the riser access lid to prevent surface water from entering the dosing tank.
- (8) All dosing tank risers shall be provided with a weighted or securely fastened lid.
- (9) Concrete dosing tanks
 - (a) Precast tank walls and bottom shall be at least two and one-half (2-1/2) inches thick. Where four (4) foot diameter manholes are used as dosing tanks, the minimum wall thickness shall be five (5) inches.
 - (b) Cast-in-place tanks shall be monolithically poured and have a minimum wall and bottom thickness of at least six (6) inches. Cast-in-place tank walls

and bottom shall be reinforced by number three (3) or larger rebar placed each way on eight (8) inch centers.

(c) All flat topped tanks shall be at least four (4) inches thick.

10. Fiberglass dosing tanks shall be a minimum of one-fourth (1/4) inch thick and constructed with a glass to fiber ratio of forty to sixty (40:60) percent with no exposed glass fiber. An anti-floatation base shall be provided where high ground conditions occur.

11. Certification requirements.

a. All prefabricated or precast dosing tanks shall bear the name of the manufacturer or a certification number provided by the Department at the tank's uppermost face.

b. Each commercial manufacturer of dosing tanks shall provide two (2) complete sets of plans and specifications, prepared by a professional engineer licensed in Oregon, together with written certification to the Department that dosing tanks distributed for use within subsurface or alternative sewage disposal systems in Oregon will comply with all requirements of the section.

c. A complete set of plans with specifications prepared by a professional engineer licensed in Oregon shall be required for tanks not previously approved by the Department.

12. Effluent pump, pump controls and alarm systems shall comply with requirements under OAR 340 and Appendix B unless otherwise stated hereunder.

a. In addition to requirements contained in Appendix B, pumps shall:

- (1) Have continuous duty, single phase motors with built-in automatic reset overload protection having a separate starting winding.
- (2) Have durable impellers of bronze, cast iron or synthetic materials approved by the Department.
- (3) Be provided with an easy, readily accessible means of electrical and plumbing disconnect.
- (4) Be provided with a nylon lifting cable as a means of removal for servicing.

b. Pump controls and alarm systems shall comply with the following:

- (1) Pump control and alarm wiring shall be installed according to provisions required under Oregon's electrical code.
- (2) The pump shall be automatically controlled by sealed-type mercury switches with a minimum mercury tube rating of twelve (12) amps at one-hundred fifteen (115) VAC.
- (3) A weather protected, corrosion resistant NEMA 3R pump control panel shall be used for outdoor panel installations. There shall be means for a disconnecting power to the pump at the control panel. Control relays shall have epoxy encased coils with terminal strips for field electrical connections.

- (4) A water proof junction box constructed of corrosion resistant material with motor, sensor cord fittings and conduit seal off or approved heat-shrink seal shall be provided inside the dosing tank as a means of electrical connection.
 - (5) A weather proof, high water level indicating light shall be visible from the building served by the sand filter system. The alarm system and pump controls shall be on separate circuits. If the alarm is mounted inside a residence, it shall be an audio/visual type with a manual silence switch. The mercury float switch regulating the high water level alarm shall be located at least five (5) inches above the "on" level.
13. The pressure distribution system shall meet the minimum following requirements;
- a. Pressure manifold and distribution lateral piping shall be at least class SDR 26, 160 psi PVC.
 - b. All fittings and pressure transport piping shall be SCH PVC or other materials acceptable to the Department.
 - c. Pressure transport piping between dosing tank and sand filter shall be installed to withstand differential soil settlement.
 - d. A shut off valve shall be installed in a readily accessible location along the pressure transport line.

NONSTANDARD SAND FILTERS

Sand filters which vary in design from the standard sand filter may be permitted under the following conditions.

Minimum design and construction requirements for nonstandard sand filters:

1. Detailed plans and specifications shall be prepared, and construction supervised by a registered professional structural or civil engineer. Plans and specifications shall be submitted to the Department or its authorized representative for review and approval prior to construction. The registered professional engineer shall certify in writing to the Department that construction conformed with approved plans.
2. Permit applications shall include the following information on:
 - a. Sand filter effluent quality -
 - (1) Analytical results for:
 - (a) BOD₅
 - (b) Suspended solids
 - (c) Fecal coliform densities
 - (d) Nitrogen-Ammonia, Nitrate and Total Kjeldahl Nitrogen
 - (2) 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 Water and Wastewater", published by the American Public Health Association, Inc.

- (3) The duration of filter effluent testing shall be sufficient to insure results are reliable and applicable to anticipated field operating conditions. The length of the evaluation period and number of data point shall be specified in the test report.

b. Site characteristics:

- (1) Topography
- (2) Soils and groundwater data
- (3) Indication of property boundaries and existing or proposed buildings, wells, roads, sand filter system and other improvements.

c. Filter system characteristics:

- (1) Detailed plans and specifications on all tanks, containments, pumps, electrical components, including timers, switches, alarms, cable characteristics, and subpanel wiring and system piping.
- (2) A comprehensive parts list shall be indicated with system specifications. Parts shall be listed by number, letter or symbol, and identified on plans with the same designation.

d. Design load including:

- (1) Daily sewage flow to sand surface area ratio
- (2) Daily sewage flow to recirculation ratio (where applicable)
- (3) Dosing (including recirculation cycles where applicable), rate, frequency and duration.

e. Filter media characteristics including:

- (1) Type of media
- (2) Effective size
- (3) Uniformity coefficient

f. Construction and operation details:

The designer shall provide a detailed manual on the proposed system's construction, operation and maintenance. The manual shall include a thorough discussion of process fundamentals and a schedule for system inspections.

g. Any additional information specifically required by the Department.

ISSUE

All sand filter systems require some routine maintenance to insure successful performance.

DISCUSSION

Based upon an evaluation of sand filter maintenance requirements, the Task Force suggests a minimum level of maintenance should be mandatory. Sufficient capabilities exist to publically or privately assure sand filter systems receive maintenance. The Task Force felt minimum Department surveillance of sand filter systems desirable and proposes the following minimum maintenance requirements be mandatory and regulated through operations permits. The Task Force also concluded an owner's manual for sand filter systems must be developed and issued to permittees. The manual should be provided with a Certificate of Satisfactory Completion after final installation is approved and when a Certificate of Adequacy is authorized

SAND FILTER SYSTEM OPERATION AND MAINTENANCE

1. Pursuant to Chapter 189, Oregon Laws of 1979, system operation and maintenance requirements shall be specified on the operation permit and Certificate of Satisfactory Completion.
2. The Department shall be provided with verification that all sand filter septic tanks have been pumped out once every four (4) years by a licensed sewage disposal service business within two (2) months of system pumping.
3. Where standard sand filter systems are used, except as required under OAR 340-71-037(2), the system owner shall be responsible for the continuous operation and maintenance of the system.
4. No permit shall be issued for the installation of any nonstandard sand filter unless responsibility for system operation and maintenance is vested in a public entity, such as a city, county, county service district, sanitary authority, or other public entity, which the Department determines as having proper statutory authority and adequate resources to carry out such responsibility, or unless other arrangements meeting the approval of the Director have been made which will insure adequate operation and maintenance of the system. Each permitted installation shall be inspected by the responsible public entity at least every six (6) months and checked for necessary corrective maintenance. Inspections may require effluent quality sample collection.
5. The system owner shall agree through perpetual easement, to provide the Department or responsible public access to the sand filter system at reasonable time to perform system evaluations.



Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

Victor Atiyeh
Governor

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. I, October 19, 1979, EQC Meeting

Request for Approval of Fiscal Year, 1980, Sewerage Works Construction Grants Priority List.

Background

The project priority list proposed for FY 80 consists of a ranked listing of sewerage works project needs throughout the state for which federal assistance is anticipated over the 5 year planning period. Projects were assigned a class category and priority point score in accordance with the criteria for establishing ranking as approved by the EQC at their regular meeting on August 31, 1979.

The source of information for determining the project class category and priority point score was the Status Assessment of Municipal Sources, a special study conducted by the Water Quality Division. This study provided for an intensive review of all potential projects and an in-depth assessment of their status relative to meeting the enforceable requirements of the Clean Water Act of 1977, state and area-wide Water Quality Management Plans and the ranking criteria established in the approved priority system.

A public hearing was held on October 8, 1979, to receive oral and written testimony on the draft FY 80 priority list distributed on September 7, 1979. The Hearing Record is included as Attachment A. Information made available at the hearing included a list of projects which were on the FY 79 list but dropped from the FY 80 list and projects new to the list. Additional information resulting from staff in-house review included a listing of staff corrections and indications of their effects on the draft list. Following the public hearing, oral and written testimony were evaluated, and justified revisions were accordingly made to the list. Staff evaluation of testimony and information received on the draft priority list is contained in Attachment B. The revised FY 80 Priority List recommended for approval is presented as Attachment C.



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Upon EQC approval of the priority list, it will be forwarded to Region X, EPA, for their review and acceptance. Determination of the fundable and planning portions of the list will follow receipt of the state's FY 80 allotment.

Evaluation and Alternatives

The state's annual project priority list is required by 40 CFR 35.912. The list must meet EQC approval prior to its acceptance and funding by EPA. Alternative courses of action available to the EQC and the possible impact of each are as follows:

1. EQC approval, as proposed - The priority list will be forwarded to EPA for their review and acceptance.
2. EQC approval with minor modifications (e.g. minor changes in certification dates, grant amounts, or other items that do not significantly affect relative priority ranking) - No additional public participation will be needed and the modified list will be forwarded to EPA.
3. EQC approval with major modification (e.g. changes having a significant effect on relative project ranking) - may necessitate additional public participation.
4. Delay or withholding of EQC approval - the priority list will not be forwarded to EPA until approved by EQC. No construction grants can be certified or awarded from FY 80 funds until further positive action is taken.

Summation

1. A state priority list has been developed based on the best available data and upon the priority system approved by the EQC on August 31, 1979.
2. The priority list has been developed in accordance with the federal requirements for public participation.
3. Oral and written testimony received at the public hearing were considered in developing the list. Changes have been made in accordance with the prioritizing criteria.

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4. Federal law requires the state to adopt a FY 80 sewerage works construction grants project priority list as a prerequisite to EPA funding of such works for FY 80.

Director's Recommendation

Based upon the summation it is recommended that the FY 80 sewerage works construction grants priority list as presented in Attachment C be approved.



William H. Young

WG:o

WO2293.4

229-5314

October 12, 1979

Attachments:

- A. Public Hearing Report
 - Exhibit 1 - List of Attendees.
 - Exhibit 2 - Summary of Oral Testimony.
 - Exhibit 3 - Summary of Written Testimony.

- B. Evaluation of Public Testimony
 - Exhibit 1 - Staff Action on Oral and Written Testimony.
 - Exhibit 2 - Staff Corrections to the Draft FY 80 List.
 - Exhibit 3 - FY 80 Priority List Deletions and Additions as Compared to the FY 79 List.


- C. Recommended FY 80 Project Priority List

PUBLIC HEARING REPORT

A public hearing was conducted on the FY 80 priority list on October 8, 1979, at the City Council Chambers, City Hall, Portland, Oregon. Mr. Charles K. Ashbaker, Water Quality Division, acted in the capacity of Hearing Officer. The hearing was opened at 10:10 a.m., with a brief explanation of the purpose of the meeting by the Hearing Officer, followed by public testimony until the hearing was closed at 11:50 a.m.

The following Exhibits are a part of this hearing record:

- | | |
|-------------|-------------------------------------|
| Exhibit I | List of Attendees at the Hearing. |
| Exhibit II | Summary of Oral Testimony |
| Exhibit III | Summary of Written Testimony Record |


Charles K. Ashbaker
Hearing Officer

10/12/79

SIGN UP SHEET
 OCTOBER 8, 1979 PUBLIC HEARING
 ON
 FY 80 PRIORITY LIST

<u>Name</u>	<u>City/Representing</u>
Dick Carlson	Bend
Chester Mac Millan	Bend
Art Johnson	Bend
J. Ned Dempsey	Bend-BECON
Ernst Heister	Newberg
Arl A. Altman	MWMC-BCS
Harold J. Youngquist	Lane County
Willaim V. Pye	MWMC
F. Duane Lee	Multnomah County
Mike Wyatt	Mayor-Roseburg
George Stubbert	City Manager - Roseburg
Fred Cooper	Cooper & Associates-Dexter
Don Caldwell	Hermiston
Lloyd Collins	Corvallis
Kerry Brough	Corvallis
Lynn Heusinkveld	Charleston Sanitary District
Beryl Leuyler	Charleston Sanitary District
A. W. Hoyer	CH ₂ M Hill
Alton McCully	Eugene
A. Beth Caster	Oregon Assoc. of Water Utilities-Salem
Mike Kennedy	CH ₂ M Hill
A. Wayne Welch	CH ₂ M Hill
Tom Blankenship	USA of Washington County
Pat Curran	H.G.E., Inc.
Roger McCorkle	Mayor-Florence
Gail P. Lynch	John Carollo Engineers
Mel Avery	Parametrix, Inc.
David J. Abraham	Clackamas County-Dept. Environmental Services
J. Val Toronto, P.E.	Engineer-Pendleton

10/12/79

PUBLIC HEARING
CONCERNING
CONSTRUCTION GRANTS PRIORITY LIST
OCTOBER 18, 1979
SUMMARY OF ORAL TESTIMONY

Richard Carlson, Mayor of Bend

Mr. Carlson urged greater funding levels for Bend for FY'80. This was supported by a written statement.

Lee Jordan, South Suburban Sanitary District

Mr. Jordan concurs with priority list but recommended that DEQ further assess downstream beneficial uses relative to the project.

Ernest Heister, City of Newberg

Mr. Heister feels that the population rating is too low for Newberg. The city was certified for a population of 10,040 and now has about 11,500, with 14 subdivisions under way and 700 lots being built on.

Harold Youngquist, Public Health Engineer, Lane County

Mr. Youngquist was speaking on behalf of John Stoner, Director of Environmental Health Division, Lane County. He urged that the Dexter project be raised from priority "D" to "A" because of a Documented Public Health Hazard. He cited a Lane County declaration and also a Health Division declaration on August 7, 1979, that the Dexter area sewage disposal systems constituted a danger to public health.

William Pye, Manager of MWMC

Mr. Pye presented written testimony for the commission, Lane County, and the city of Springfield. All of the testimony urged that funding be increased to 25.5 million in FY'80. (See written testimony) He further urged that funding (based on present allocations) be extended one more year to FY'83 for about 26 million dollars.

Duane Lee, Lee Engineering

Mr. Lee was representing the East Multnomah County Consortium. He recommended that the regulatory emphasis be increased on the basis of several factors. He pointed out that Troutdale should warrant a regulatory emphasis of 150 points based on an EQC order. He noted that both Gresham and Troutdale are under moratoria because of the sewage situation and that this would entitle them to a regulatory emphasis of 120. He further cited the formation of the consortium, as a result of an EQC order, and that this would create a regulatory emphasis of 130. He further compared the project to Inverness which has a regulatory emphasis of 130. He urged that individual project files be reviewed for the necessary documentation.

Mike Wyatt, Mayor of Roseburg

Mr. Wyatt requested that the city of Roseburg be recognized as lead agency in Roseburg Metro project, since Douglas County withdrew from this position by County Commission Action on August 31.

Dave Abraham, Utilities Director, Clark County

Mr. Abraham represented the Tri-City and Mt. Hood Rhodo-Welches projects. He accepts segmenting, phasing, and priority of Tri-City subject to available funding. He expressed that Mt. Hood residents were "disenchanted" with the state's response to the Mt. Hood situation and felt that the project should have been ranked "A" because of the unique nature of the area, particularly the tourist influx and impairment of resources. He disagreed with the stream segment ranking and felt that this further lowered the project priority. He felt that private development of facilities would not solve ongoing pollution problems.

Fred Cooper

Mr. Cooper represented the consultants for Lane County Community Development and the Dexter Community. Mr. Cooper provided written testimony providing water quality data in support of changing Dexter class from "D" to "A". He noted the I/A funding was being requested.

Lynn Heusinkveld, Attorney

Mr. Heusinkveld represented the Charleston Sanitary District. He objected to the fact that the project was not on the priority list because collection systems are not fundable in accordance with the FY 80 criteria. He stated that DEQ has violated state and federal laws in developing the priority list, particularly relative to specifying statutory authority for rule making and also relative to collection system eligibility and community financial capability. Mr. Heusinkveld provided written testimony citing specific statute references in support of his position. He further stated that the EQC position will be challenged in court unless changes are made.

Michael Kennedy, CH₂M-Hill

Mr. Kennedy was representing the Wauna-Westport project. He provided written testimony which summarized the completed facility plan and urged that the project be reviewed with the intent of changing the project class from "B" to "A" and that the project be expedited.

Tom Blankenship, U.S.A.

Mr. Blankenship objected to the revised priority list, "which was not available 30 days prior to the hearing." He stated that he felt that this was "in violation of EPA regulations." He noted that Rock Creek project had been lowered on the list without explanation and contrary to prior commitment, both in the original draft list and informally with DEQ staff members. He cited reference to a telephone conversation concerning the Durham Sludge and Cedar Mills Trunk Projects. He stated that written statements submitted subsequent to this conversation should be the ruling factor on inclusion of these projects on the priority list. Mr. Blankenship presented written testimony.

Don Caldwell

Mr. Caldwell was representing the city of Hermiston. He was concerned that reductions in funding would jeopardize the chances of completing their project and urged that the project be given special consideration for completion in FY-80.

Val Toronto, Consulting Engineer

Mr. Toronto discussed the cities of Reith, Lyons, Mehama, and Mill City. He urged that Reith be placed on the priority list, since it has formed a sanitary district for a Step 1 study. He further noted that Lyons, Mehama, and Mill City should be combined in a single project and receive a similar priority ranking; Mill City now has a higher ranking. He further encouraged that uncommitted reserve funds be used to assist rural communities to take advantage of I/A set-a-sides.

Patrick Curran, HGE Inc. Engineers

Mr. Curran provided written testimony concerning several projects, some of which he elaborated. He recommended that Neskowin be increased from class "D" to "B" because of existing water quality and beneficial uses. He urged additional review of Fall City because of septic tank problems and a lack of development in the downtown area. He stated that this represents a defacto moratorium and should increase the priority of the Falls City Project. He requested that Regulatory Emphasis for Sisters be increased to 90 because of a completed facility plan. He added that Tri-City-Myrtle Creek should be given higher priority. He cited substantial I/I problems causing overflow of sewage into the South Umpqua upstream from water intakes which must cease withdrawal when this occurs. He stated that when this occurs in August a "potentially disastrous" situation could occur.

Roger McCorkle, Mayor of Florence

Mr. McCorkle urged that the Florence project be reviewed and that the priority be increased on the basis of a "Regional plan". He cited that the present plant capacity will be exceeded in 2 to 3 years and that septic tanks are being pumped and the material placed in the sanitary landfill. He requested the DEQ explain to him why the project had been lowered in priority from the '79 list.

WN8349.4

SUMMARY OF WRITTEN TESTIMONY

Received on

SEWERAGE WORKS CONSTRUCTION GRANTS PRIORITY LIST FOR FY 80

Bear Creek Valley Sanitary Authority (10/3/79)

Requested reevaluation of BCVSA/Whetstone project.

City of Bend (10/8/79)

Requested additional funds for FY 80 since delay until FY 81 will result in increased costs.

Carmel-Foulweather Sanitary District (10/6/79)

Requested project be placed higher on list.

Charleston Sanitary District (10/4/79) (Lynn H. Heusinkveld, Attorney)

Gave notice of intent to file litigation to determine validity of criteria since district does not qualify for additional grant funds under the criteria.

City of Coos Bay (10/4/79) (H.G.E., Inc./Engineers)

Requested increase in regulatory emphasis points.

Community of Dexter (10/8/79) (Cooper & Associates)

Requested reevaluation of priority due to health hazard designation of the Board of Health.

City of Falls City

Requested reevaluation of regulatory emphasis points.

City of Mill City (8/30/79) (H.G.E., Inc./Engineers)

Presented additional information on extent of problem in area.

City of Mill City (9/14/79)

Presented additional information on the problem.

City of Mill City

Requested regulatory emphasis points be reevaluated.

City of Mt. Angel

Requested higher priority for project.

Multnomah County (10/8/79)

Supports priority of interceptor, requests increase in priority of East Multnomah County Consortium project as necessary to assure capacity to handle interceptor project.

Metropolitan Wastewater Management Commission (MWMC) (10/4/79) (Lane County)

Requests additional funds for project. Proposed level \$11.2 million less than anticipated.

MWMC (10/4/79) (Springfield)

Requests additional funds for project.

MWMC (10/4/79) (10/3/79)

Requests additional funds for project. Stresses added costs of delay which will result from reduced funding.

MWMC (9/19/79) (Springfield Chamber of Commerce)

Requests increase in funds for project.

MWMC (10/3/79) (Lane County Labor Council, AFL-CIO)

Requests increase in funds for project.

MWMC (10/2/79) (City of Eugene)

Requests increase in funds for project.

MWMC (9/27/79) (Eugene Area Chamber of Commerce)

Requests increase in funds for project.

MWMC (10/4/79) (Warner Real Estate)

Cautions against cut-back of funds for project

MWMC (10/4/79)

Presents cost information for project.

Neskowin Regional Sanitary Authority

Requests reevaluation of priority of project. Presents information on problem.

Roseburg Rifle Range Road

Requests addition to the list of Step III for project.

City of Sisters

Requests reevaluation of regulatory emphasis points.

Tri City/Myrtle Creek (10/5/79) (H.G.E., Inc./Engineers)

Presents additional information on project.

Unified Sewerage Agency of Washington County (9/25/79)

Requests re-prioritization of USA-Hillsboro project based on FY 79 list; revision of grant amounts and target certification dates for other projects.

Wauna-Westport (10/8/79) (CH₂M Hill on behalf of Clatsop County)

Requests review of severity of problem.

Wauna-Westport (10/5/79)

Requests increase in priority of project.

Home Builders Association of Metropolitan Portland (10/8/79)

Requests reevaluation of priority criteria because funds appear disproportionately allocated to small towns.

Senator Mike Thorne (8/23/79)

Supports La Grande, Island City and Hermiston projects

10/12/79

EVALUATION OF TESTIMONY

AND

INFORMATION RECEIVED ON DRAFT PRIORITY LIST

- | | |
|-------------|--|
| EXHIBIT I | Staff Action on Oral and Written Testimony |
| EXHIBIT II | Staff Corrections to Draft FY 80 List |
| EXHIBIT III | FY 80 Point List Deletions and Additions to List
(compared to FY 79 list) |

STAFF ACTION ON ORAL AND WRITTEN TESTIMONY

1. BCVSA - Whetstone - Requested change of project class and regulatory emphasis based on district imposed manatorium on hookups and system extensions.

Staff Response - For an area experiencing subsurface disposal problems, 120 points requires EQC ruling restricting subsurface permit. In addition, the staff does not have information that subsurface system failures in the Whetstone area are causing water quality standards violations or beneficial use impairment. Therefore, the project is prioritized in accordance with the adopted criteria.

2. Bend - Higher costs resulting from phasing northwest interceptor in FY 81 will increase federal funds needed and create a greater shortfall in local funds.

Staff Response - The interceptor was phased into FY 81 as a part of staff action to balance logical phases of ongoing construction projects with estimated FY 80 grant funds.

3. Carmel-Foulwether S.D. - Requested Higher Priority

Staff Response - Project reviewed by staff. In the absence of any new documentation of the scope and nature of the problem, the project is properly prioritized.

4. Charleston S.D. - Indicated they are considering filing litigation for the judicial determination of the validity of the state's priority system as adopted by the EQC at their August 31, 1979 meeting.

Staff Response - The Department has not received the original letter, but only a copy handed to the staff by the attorney. A copy of the letter was placed with Mr. Ray Underwood, Chief Counsel. It should be noted that the letter indicates that a copy was sent to the legislative counsel.

5. Clackamas County/Rhodo-Welches - Expressed concern that: 1) the population influx into the Mt. Hood corridor was not taken into account in the priority ranking criteria for the Sandy River Basin streams; and 2) the priority criteria do not recognize Mt. Hood as a unique area of the state.

Staff Response - Stream segment ranking is a category which needs reevaluation before FY 81. Availability of data and time precluded such an evaluation this year. Letter Class designations do not differentiate between areas of the state. Clackamas/Rhodo-Welches was correctly assigned the Letter Class B according to the description of the problem in the Hoodland area.

6. Coos Bay - Plant #1 - Requested change in regulatory emphasis from 90 to 120 because the city is finding it necessary to refuse service to developments outside the city.

Staff Response - No system-wide connection limitation was formally enacted by the city; therefore, 120 points for Regulatory Emphasis cannot be assigned to the project.

7. Dexter Area - Requested project class category change from D to A.

Staff Response - The Dexter Area is a certified public health hazard area. Review of the project and the additional Water Quality data submitted with the testimony revealed groundwater contamination and repeated water quality standards violations. Based on reappraisal, the staff revised the project the class to A. The project is now ranked A216.99

8. Falls City - Regulatory emphasis should be changed to 120 points because of restricted issuance of subsurface permits.

Staff Response - 120 points requires EQC ruling restricting subsurface permits. This is not the case in Falls City; therefore, request is not in accordance with the prioritizing criteria.

9. Florence - Requested explanation for its drop in priority from 74 on the FY 79 list to 77 on the proposed FY 80 list.

Staff Response - This decrease in priority rank is mostly a result of reassignment of Stream Segment Points from 77.00 to 55.00. Florence STP discharges into the Siuslaw River and not Siuslaw Bay.

10. Hermiston - Requested change in dollar amount shown on list and advised that reduction in federal funds could interrupt construction.

Staff Response - Revised dollars as requested.

11. La Grande/Island City - Requested continuation of present schedule.

Staff Response - Project was transitioned in ranking order from FY 79 list.

12. Lyons-Mehama - J. Val Toronto requested the Lyons-Mehama project be prioritized together with Mill City for facility planning purposes since a regional facility with Mill City/Lyons-Mehama is an alternative which should be addressed.

Staff Response - These problems are distinctly separable and should not be combined at this time. Should later facility planning stress the need for combining because of environmental factors, land use considerations or operability, the projects can be combined.

13. Mill City - Requested review of project class and regulatory emphasis.

Staff Response - Review of project by staff resulted in project class changed to D and given 50 points regulatory emphasis. Total points D141.73.

14. Mt. Angel - Requested higher priority.

Staff Response - Project was reviewed and it was determined that the project class and priority points as shown are correct.

15. E. Mulco-Consortium - Requested higher priority.

Staff Response - Review of the project indicated that a narrowed scope of facility planning should be coordinated with the Mulco-Inverness interceptor because of the capacity limitations at the Inverness STP. For facility planning purposes the E. Mulco Consortium project is tied with the Inverness priority ranking.

16. MWMC - Requested reinstatement of the \$25.5 million shown for FY 80 on the FY 79 list.

Staff Response - \$25.5 million is about 80 percent of the estimated \$32 million which may be available in FY 80. A grant of this amount would result in stopping of construction on all projects of lower priority. The FY 80 lists identifies \$14 million for MWMC, about 44 percent of the estimated \$32 million. Staff declined to make any changes.

17. Neskowin S.D. - Requested project be elevated from Letter Class D to B based upon presentation of sanitary survey results.

Staff Response - A staff evaluation of the data does not support elevating the project. The survey does not conclusively demonstrate subsurface system failures, sewage discharges, or repeated water quality standards violations.

18. Newberg - Requested population emphasis point score be recalculated to reflect an existing population of 11,500 rather than 10,000.

Staff Response - This change raises the population emphasis from 8.00 points to 8.12 points. This correction changes the total priority point score from B201.45 to B201.57.

19. Reith Area - J. Val Toronto requested that the Reith Area be placed on the priority list.

Staff Response - Staff review of the proposed project could not identify any problem that would meet the enforceable requirements of the act.

20. Roseburg City - Requested that the city of Roseburg be recognized as the lead agency for the Douglas County Metro Project.

Staff Response - At this time, the city of Roseburg is not considered a legal applicant for Step 3. Intergovernmental agreements must be accomplished before project can proceed.

21. Roseburg Rifle Range - Requested schedule Step 3 in FY 80.

Staff Response - Schedule changed as requested.

22. Sisters - Requested change on regulatory emphasis to 90 points based on DEQ approved facility plan.

Staff Response - Staff concurs and points were changed accordingly.

23. South Suburban Sanitary District - Requested that the stream segment ranking criteria for Klamath River Basin streams be reevaluated to reflect current beneficial uses.

Staff Response - The staff intends to reevaluate the stream segment ranking category before FY 81.

24. Tri-City/Myrtle Creek - Requested reconsideration of project Letter Class to reflect the inflow and infiltration problem and overflows to Myrtle Creek.

Staff Response - At this time, there is sufficient information to suggest a problem, but no data was presented to conclusively demonstrate the scope of the problem or its impact.

25. USA-Banks - Request to revise schedule and dollars.

Staff Response - Changes made to list.

USA-Durham Sludge - Request to be placed on the FY 80 priority list.

Staff Response - Project added to list.

USA-Cedar Mill - Request to be placed on the FY 80 priority list.

Staff Response - Project added to list.

26. USA-Gaston - Request for change in schedule and dollars.

Staff Response - Changes made as requested.

27. USA-Hillsboro - Requested deletion of Step 1 and changes in schedule and dollars.

Staff Response - The Step 1 was completed by the city of Hillsboro and a Step 2 awarded to the city on September 22, 1977.

Subsequently USA took over the plant. The Step 2 work has not proceeded. EPA in response to USA extended the Step 2 until September 1979. USA has not requested a further extension. Since the project now considers eliminating the Hillsboro plant and transmitting to the Rock Creek STP, the project was considered a scope change and prioritized accordingly.

28. USA-North Plains - Requested schedule and dollar changes.

Staff Response - Changes made as requested.

29. USA-Rock Creek - Requested transitioning.

Staff Response - A previous certification of a Step 2 grant was returned by EPA on September 30, 1977, because of the land use issue involved in the project. Because of this action, the project does not have a grant and transitioning rules cannot apply.

30. Wauna-Wesport - Requested review of the severity of problem, project class and regulatory emphasis.

Staff Response - Project reviewed. Present project class is category B and regulatory emphasis is 90. Based on the status of the project, this priority is consistent with the criteria.

STAFF CORRECTIONS TO DRAFT FY 80 LIST

The following is a list of changes made to the Draft FY 80 Priority List by the DEQ staff. Priority ranking was changed in a number of projects because of closer evaluation of basin and stream segment ranking and regulatory emphasis. The changes in priority ranking do not appear to alter the prospects of funding based on an estimate of \$43.5M.

- A. Closer evaluation of basin and stream segment ranking on certain projects altered the stream segment point assignment.

**Project and Change in
Stream-Ranking Points**

1. Silverton from 79.82 to 82.09
2. Multnomah Co./Inverness from 93.45 to 48.00
3. Salem from 91.18 to 93.45
4. Scio from 75.27 to 50.27
5. Clackamas Co./Kellogg from 91.18 to 93.45
6. USA/Banks from 95.73 to 48.00
7. Vernonia from 38.00 to 68.54
8. Oakland from 57.09 to 44.00
9. E. Multnomah Co. Consortium from 42.00 to 55.33
10. Dufur from 42.00 to 30.00
11. Heppner from 20.00 to 34.00
12. Sodaville from 75.27 to 57.09
13. Neskowin from 32.00 to 38.00
14. Tillamook/Hwy 101 from 65.76 to 79.66
15. Junction City from 48.00 to 91.18
16. Mapleton from 47.00 to 52.00

17. Corvallis Airport from 91.18
to 48.00
18. Scappoose from 91.18 to 48.00
19. Tangent from 91.18 to 57.09

B. The following project was inadvertently left off of the draft FY 80 Priority List.

Project

1. St. Helens

C. Regulatory Emphasis--Because of more recent information from DEQ regional offices, the following changes were made to regulatory emphasis.

Project

1. Dallas--Regulatory Emphasis
from 50 to 90
2. Carlton--Regulatory Emphasis
from 90 to 120

D. Population Emphasis--The population emphasis was changed for the following project because of a reanalysis of available data. The change did not effect the relative priority ranking.

Project

Turner--Population Emphasis from 6.16 to 6.12

E. The following represent changes in project information, particularly certification dates and grant amounts. These changes did not effect the relative priority ranking of the projects. The changes were made based on more recent data or at the request of grantees.

1. Corvallis/City--Grant amount changed from \$450,000 to \$522,000
2. Bend--Effluent Disposal was added to FY 80, grant amount - \$750,000. Northwest interceptor shifted to FY 81, grant amount \$2,550,000.
3. Douglas County/Metro (STP, step 2)--Grant amount changed from \$700,000 to \$650,000.
4. Douglas County/North Bank--Grant amount changed from \$75,000 to \$45,000.
5. Lincoln City--Interceptor--Step 3 was added.

6. BCVSA/Jacksonville--Project number was corrected to 652. Grant amount changed from \$315,000 to \$400,000.
7. Corvallis SW Annex--Target Certification date changed from 0780 to 0880. Grant amount changed from \$48,000 to \$24,000.
8. Tri-City Co./Region--Project schedule changed to segments 1 through 4. Total Grant amount changed: 1980--\$1,012,500; 1981 and beyond--\$32,077,500.
9. Falls City--Step 2 Target Certification date changed from 0980 to 1080.

WJ8342.2

FY 80 Priority List Deletions and Additions Presented at the Public Hearing

1. The following projects which were included on the FY 79 Priority List have been dropped from the FY 80 List.

<u>Project No.</u>	<u>Project</u>	<u>Reason</u>
440	Lake Oswego, Marylhurst	Step 3 Certified
505	Tillamook City	Step 3 Certified
428	Brownsville	Step 3 Awarded
530	Lakeside	Step 3 Awarded
488	Canyonville	Step 3 Awarded
439	Mt. Vernon	Step 3 Awarded
490	Harrisburg	Step 3 Awarded
625	Monmouth	Step 3 Awarded
640	Independence	Step 3 Awarded
626	Dundee	Step 3 Awarded
413	Gold Hill	Step 3 Awarded
556	Reedsport	Step 3 Awarded
502	Hammond	Step 3 Certified
507	Willamina	Step 3 Awarded
273	Rockaway	Step 3 Certified
455	Shady Cove	Step 3 Certified
587	Haines	Step 3 Certified
650	Burns	Need Not Identified
641	Gearhart	Subsurface Management Program
356	Columbia City Int	Constructed
577	Hood River/Westside	INT. Ineligible
580	Lexington	Constructed H ₂ O system
656	Portland/Lombard	Constructed
621	Portland/Linnton	Constructed
657	Portland/Rivergate	Constructed
552	Powers	Need Not Identified
553	Bandon	Need Not Identified
630	Lostine	Need Not Identified
563	Roseburg/Lookingglass	Need Not Identified
654	Helix	Need Not Identified
529	Biggs Junction	Need Not Identified
658	Reith Area	Need Not Identified
465	Gresham/Linneman	Need Not Identified

FY 80 Priority List Deletions and Additions

Page 2

2. The following projects have been added to the FY 80 Priority List.

<u>Project No.</u>	<u>Project/Segment</u>	<u>Description</u>
667	South Suburban S.D.	STP Imp.
668	Corvallis	CSO
672	Brookings	STP Imp
506	Sheridan (West)	Int.
670	Tri-City (Myrtle Creek)	I/I
673	Winston-GR (Landers Lane)	Int
674	Boring area	System
516	Klamath Falls (Pelican City)	Int.
592	Dallas (East)	Int.
675	Wallowa	STP Imp
671	Pilot Rock	STP Imp
516	Klamath Falls (Riverside)	Int
676	Adair Village	STP Imp
540	Merril	STP Exp
679	Gates	System
678	Idahna	System
677	Lyons/Mehama	System

W6354

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
FY 80 PRIORITY POINTS LIST

ATTACHMENT C

<u>COMMUNITY/PROJECT</u>	<u>PROJECT DESCRIPTION</u>	<u>PROJECT STEP</u>	<u>PROJECT CLASS</u>	<u>REG. EMPH.</u>	<u>POP. EMPH.</u>	<u>STREAM SEG.</u>	<u>PROJECT TYPE</u>	<u>TOTAL POINTS</u>	<u>PRIORITY NUMBER</u>
569	MONROE	2					CERTIFIED FROM FY 79 FUNDS		
445	DONALD	2					CERTIFIED FROM FY 79 FUNDS		
491	USA / L TUAL	3					CERTIFIED FROM FY 79 FUNDS		
	NYBERG INT								
516	K FALLS/STEW-LEN	2					CERTIFIED FROM FY 79 FUNDS		
CORVALLIS / CITY	SLUDGE						TRANSITIONED		1
PRINEVILLE / LAUGHLIN	INT						TRANSITIONED		2
BEND / CITY	STP						TRANSITIONED		3
	NW INT						TRANSITIONED		3
	SE INT						TRANSITIONED		3
	EFF DISPOSAL						TRANSITIONED		3
DOUG CO / METRO	STP PHASED						TRANSITIONED		4
/ N. BANK	INT						TRANSITIONED		4
MWMC / REGIONAL	STP PHASED						TRANSITIONED		5
	INT PHASED						TRANSITIONED		5
	SLUDGE PHASED						TRANSITIONED		5
	PUMP STATION						TRANSITIONED		5
/AGRIPAC	EFF DISPOSAL						TRANSITIONED		5
/ SPNGFIELD	REHAB PHASED						TRANSITIONED		5
/ EUGENE	REHAB PHASED						TRANSITIONED		5
PORTLAND / CITY	SLUDGE - GAS UT						TRANSITIONED		6
	SLUDGE - DISP						TRANSITIONED		6
LAGRANDE / ISL CITY	INT						TRANSITIONED		7
GERVAIS / CITY	STP IMP						TRANSITIONED		8
	INT						TRANSITIONED		8
LINCOLN CY / CITY	INT						TRANSITIONED		9
HERMISTON / CITY	STP IMP						TRANSITIONED		10
ROSEBURG / CITY	REHAB						TRANSITIONED		11
ST PAUL / CITY	SYSTEM						TRANSITIONED		12

STATE OF OREGON
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FY 80 PRIORITY POINTS LIST

ATTACHMENT C

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BCVSA / WESTSIDE	INT								13
DAYTON / CITY	STP IMP								14
BCVSA / JACKSONVILLE	INT								15
BCVSA / WHITE CITY	REHAB								16
PORTLAND / SE RELVG	INT PHASED								17
PORTLAND / SW 45th	INT	3	A	130	5.56	95.73	6	A237.29	18
ALBANY / DRPVL	INT	2	A	130	5.56	91.18	6	A232.74	19
	COLL	2							19
TERREBONNE / TOWN	SYSTEM	1	A	130	4.95	79.50	10	A224.45	20
MEDFORD / FOOTHILLS	INT	3	A	130	4.16	83.50	6	A223.66	21
	COLL	3							21
SILVERTON / NORWAY	INT	3	A	130	4.16	82.09	6	A222.25	22
	COLL	3							22
/ CITY	STP IMP	3							22
	REHAB	3							22
	INT	3							22
ROSEBURG / RIFLE RNG	INT	3	A	130	4.35	77.33	6	A217.68	23
	COLL	3							23
DEXTER / AREA	SYSTEM	2	A	130	6.26	70.73	10	A216.99	24
MADRAS / FRINGE	INT	2	A	130	5.40	67.00	6	A208.40	25
	COLL	2							25
K-FALLS / STEW-LENN	INT	3	A	130	6.00	66.00	6	A208.00	26
	COLL	3							26
CORVALLIS / SW ANNEX	INT	2	A	130	5.60	59.36	6	A200.96	27
	COLL	2							27
MONROE / NORTH	INT	3	A	130	5.60	54.82	6	A196.42	28
	COLL	3							28
/ CITY	STP EXP	3							28
	REHAB	3							28
HAMMOND (WRNTN) /CITY	FPR	1	A	130	6.97	38.00	10	A184.97	29

STATE OF OREGON
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FY 80 PRIORITY POINTS LIST

ATTACHMENT C

<u>COMMUNITY/PROJECT</u>	<u>PROJECT DESCRIPTION</u>	<u>PROJECT STEP</u>	<u>PROJECT CLASS</u>	<u>REG. EMPH.</u>	<u>POP. EMPH.</u>	<u>STREAM SEG.</u>	<u>PROJECT TYPE</u>	<u>TOTAL POINTS</u>	<u>PRIORITY NUMBER</u>
COTTAGE GV / CITY	STP IMP	3	B	150	7.74	73.00	10	B240.74	30
	REHAB	3							30
	I/I CORR	3							30
TRI CY CO / REGIONAL	STP	2	B	120	9.10	93.45	10	B232.55	31
	REHAB	2							31
	INT	2							31
	PUMP STA	2							31
USA / ROCK CREEK	INT	2	B	120	7.90	95.73	8	B231.63	32
BAKER / CITY	STP IMP	2	B	150	7.87	49.00	10	B216.87	33
SEASIDE / CITY	STP IMP	2	B	150	7.38	46.30	10	B213.68	34
	REHAB	2							34
DONALD / CITY	SYSTEM	3	B	150	4.95	48.00	10	B212.95	35
SALEM / CITY	FPR PHASED	1	B	90	9.91	93.45	10	B203.36	36
NEWBERG / CITY	STP IMP	2	B	90	8.00	93.45	10	B201.45	37
	REHAB	2							37
	I/I CORR	2							37
USA / HILLSBORO	INT	1	B	90	6.60	95.73	8	B200.33	38
PORTLAND / ELK ROCK	INT	3	B	90	6.49	93.45	6	B195.94	39
GRD RONDE / AREA	SYSTEM	1	B	90	5.11	88.91	10	B194.02	40
MULT. CO / INVERNESS /E. MULT. CO. CONSORTIUM	INT	2	B	130	8.89	48.00	6	B192.89	41
	FPR	1							
HAPPY VAL / CITY	INT	2	B	130	6.32	48.00	6	B190.32	42
COOS BAY / CITY NO 1	STP IMP	1	B	90	7.91	80.00	10	B187.91	43
CLACK CO / RHODO-WLCH	STP	3	B	120	5.76	38.67	10	B174.43	44
	WLCH INT								44
	TIMB INT								44
	RHODO INT								44
DALLAS / CITY	REHAB	2	B	90	7.91	63.91	9	B170.82	45
	I/I CORR								45
CLTSOP PL / AREA	INT	2	B	120	6.49	38.00	6	B170.49	46

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FY 80 PRIORITY POINTS LIST

ATTACHMENT C

<u>COMMUNITY/PROJECT</u>	<u>PROJECT DESCRIPTION</u>	<u>PROJECT STEP</u>	<u>PROJECT CLASS</u>	<u>REG. EMPH.</u>	<u>POP. EMPH.</u>	<u>STREAM SEG.</u>	<u>PROJECT TYPE</u>	<u>TOTAL POINTS</u>	<u>PRIORITY NUMBER</u>
FALLS CITY / CITY	SYSTEM	1	B	90	5.88	61.64	10	B167.52	47
COVE ORCH / AREA	SYSTEM	2	B	90	4.08	48.00	10	B152.08	48
DRAIN / CITY	STP IMP	1	B	90	6.23	44.00	10	B150.23	49
WAUN-WESPT / SAN DIST	SYSTEM	2	B	90	5.69	38.00	10	B143.69	50
SW LINCOLN / SAN DIST	SYSTEM	1	B	90	6.62	32.00	10	B138.62	51
ASTORIA / WILLIAMSPT	INT	2/3	B	90	4.60	38.00	6	B138.60	52
IONE / CITY	SYSTEM	2	B	90	5.27	20.00	10	B125.27	53
MT. ANGEL / CITY	STP IMP	2	C	150	6.83	82.09	10	C248.92	54
S. SUBURBAN / SAN DIST	STP IMP	2	C	150	8.53	66.00	10	C234.53	55
STANFIELD / CITY	STP IMP	2	C	150	6.26	67.33	10	C233.59	56
ELGIN / CITY	STP IMP	2	C	150	6.48	61.33	10	C227.81	57
CARLTON / CITY	STP IMP	2	C	120	6.29	86.64	10	C222.93	58
SCIO / CITY	STP IMP	2	C	150	5.48	50.27	10	C215.75	59
PRAIRIE CY / CITY	STP IMP	3	C	150	6.10	45.00	10	C211.10	60
VERNONIA / CITY	STP IMP	1	C	120	6.52	68.54	10	C205.06	61
CANNON BCH / CITY	STP IMP	2	C	150	6.08	38.00	10	C204.08	62
CLACK CO / KELLOGG	SLUDGE	2	C	90	9.11	93.45	10	C202.56	63
PORTLAND / COL. BV RLVG	INT	1	C	90	10.60	93.45	8	C202.05	64
USA / CEDAR MILL	INT	2	C	90	6.00	95.73	8	C199.73	65
USA / GASTON	INT	2	C	90	5.09	95.73	8	C197.73	66
CRESWELL / CITY	STP IMP	2	C	90	6.51	91.18	10	C197.69	67
	INT								67
SHERIDAN / CITY	REHAB	2	C	90	6.71	88.91	9	C194.62	68
	I/I CORR	2							68
CORVALLIS / CITY	CSO	1	C	90	8.48	91.18	3	C189.66	69
ENTERPRISE / CITY	STP IMP	2	C	120	6.60	44.67	10	C181.27	70
EAGLE PT / CITY	INT	2	C	120	6.80	46.00	8	C180.80	71
OAKRIDGE / CITY	STP IMP	2	C	90	7.27	70.73	10	C178.00	72
LOWELL / CITY	STP IMP	2	C	90	5.69	70.73	10	C176.42	73
	REHAB	2							73

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ATTACHMENT C

<u>COMMUNITY/PROJECT</u>	<u>PROJECT DESCRIPTION</u>	<u>PROJECT STEP</u>	<u>PROJECT CLASS</u>	<u>REG. EMPH.</u>	<u>POP. EMPH.</u>	<u>STREAM SEG.</u>	<u>PROJECT TYPE</u>	<u>TOTAL POINTS</u>	<u>PRIORITY NUMBER</u>
ESTACADA / CITY	STP IMP	2	C	90	6.16	68.45	10	C174.61	74
K-FALLS / REGIONAL	STP EXP	2	C	90	8.52	66.00	10	C174.52	75
	I/I CORR	2							75
GRANTS PS / CITY	FPR	1	C	90	9.20	58.50	10	C167.70	76
PHILOMATH / CITY	STP IMP	1	C	90	6.76	59.36	10	C166.12	77
FLORENCE / CITY	STP IMP	2	C	90	7.48	52.00	10	C159.48	78
USA / BANKS	INT	2	C	90	5.31	48.00	8	C151.31	79
OAKLAND / CITY	STP IMP	2	C	90	6.09	44.00	10	C150.09	80
BROOKINGS / CITY	STP IMP	1	C	90	7.09	40.00	10	C147.09	81
ST. HELENS / CITY	STP IMP	2	C	90	7.82	38.00	10	C145.82	82
RAINIER / CITY	I/I CORR	2	C	90	6.61	38.00	7	C144.09	83
HEPPNER / CITY	STP IMP	1	C	90	6.48	34.00	10	C140.48	84
MODOC PT / TOWN	SYSTEM	1	C	90	3.40	36.00	10	C139.40	85
NEWPORT / CITY	STP IMP	1	C	90	6.17	32.00	10	C138.17	86
DUFUR / CITY	STP IMP	2	C	90	5.56	30.00	10	C135.56	87
JOSEPH / CITY	STP IMP	2	C	90	5.96	28.00	10	C133.96	88
ONTARIO / CITY	STP IMP	2	C	90	7.90	26.00	10	C133.90	89
THE DALLES / FOLEY LKS	INT	2/3	C	90	5.75	30.00	6	C131.75	90
FOSSIL / CITY	STP IMP	1	C	90	5.63	20.00	10	C125.63	91
MLTN FRWTR / CITY	STP IMP	2	C	90	7.33	18.00	10	C125.33	92
HALSEY / CITY	STP IMP	1	C	50	5.72	48.00	10	C113.72	93
ATHENA / CITY	STP IMP	1	C	50	6.00	34.00	10	C100.00	94
IRRIGON / CITY	SYSTEM	2	D	130	5.42	50.67	10	D196.09	95
SHERIDAN / WEST AREA	INT	2/3	D	90	4.60	88.91	6	D189.51	96
BCVSA / WHETSTONE	INT	1	D	90	6.60	83.50	8	D188.10	97
TRI CITY / MYRTLE CREEK	I/I CORR	1	D	90	7.56	77.33	7	D181.89	98
WINSTON-GR / LANDERS LN	INT	1	D	90	4.23	77.33	6	D177.56	99

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<u>COMMUNITY/PROJECT</u>	<u>PROJECT DESCRIPTION</u>	<u>PROJECT STEP</u>	<u>PROJECT CLASS</u>	<u>REG. EMPH.</u>	<u>POP. EMPH.</u>	<u>STREAM SEG.</u>	<u>PROJECT TYPE</u>	<u>TOTAL POINTS</u>	<u>PRIORITY NUMBER</u>
BORING / AREA	SYSTEM	1	D	90	5.40	68.45	10	D173.85	100
K-FALLS / PELICAN CY	INT	2/3	D	90	5.91	66.00	6	D167.91	101
DALLAS / EAST	INT	2/3	D	90	5.56	63.91	6	D165.47	102
USA / DURHAM	SLUDGE	2	D	50	10.16	95.73	8	D163.89	103
SODAVILLE / CITY	SYSTEM	1	D	90	4.56	57.09	10	D161.65	104
N. POWDER / CITY	STP IMP	2	D	90	5.29	49.00	10	D154.29	105
WALLOWA / CITY	STP IMP	1	D	90	5.99	44.67	10	D150.66	106
YONCALLA / CITY	STP IMP	1	D	90	5.86	44.00	10	D149.86	107
HUBBARD / CITY	STP IMP	1	D	50	6.35	82.09	10	D148.44	108
SISTERS / CITY	SYSTEMS	2	D	90	5.81	42.00	10	D147.81	109
OAKLAND / UNION GAP	INT	2/3	D	90	4.56	44.00	6	D144.56	110
CAMAS VLY / AREA	SYSTEM	1	D	90	4.35	40.00	10	D144.35	111
NEKOWIN / SAN AUTH	SYSTEM	1	D	90	4.80	38.00	10	D142.80	112
MILL CITY / CITY	SYSTEM	1	D	50	6.46	75.27	10	D141.73	113
TILLAMOOK / HWY 101	INT	2/3	D	50	4.60	79.66	6	D140.26	114
LAPINE / TOWN	SYSTEM	1	D	50	2.95	67.00	10	D129.95	115
MERLIN / COL VLY	SYSTEM	1	D	50	8.21	58.50	10	D126.71	116
JUNCTION CY / CITY	STP IMP	2	D	0	6.95	91.18	10	D108.13	117
ALBANY / NORTH AREA	INT	1	D	0	6.16	91.18	10	D107.34	118
TURNER / CITY	SYSTEM	1	D	0	6.12	91.18	10	D107.30	119
PILOT ROCK / CITY	STP IMP	1	D	50	6.50	34.00	10	D100.50	120
PRINEVILLE / CITY	STP IMP	2	D	0	7.56	79.50	10	D 97.06	121
MAPLETON / AREA	SYSTEM	1	D	0	5.83	52.00	10	D 67.83	122
VENETA / CITY	STP EXP	1	E	90	6.60	54.82	10	E161.42	123
USA / N. PLAINS	INT	2/3	E	50	5.90	95.73	6	E157.63	124
CORVALLIS / AIRPORT	STP EXP	2	E	90	5.09	48.00	10	E153.09	125
CARMEL FOUL / SAN DIST	SYSTEM	2	E	90	6.00	38.00	10	E144.00	126
TWIN ROCKS / SAN DIST	STP EXP	2	E	90	5.63	38.00	10	E143.63	127
K-FALLS / RIVERSIDE	INT	2/3	E	50	5.81	66.00	6	E127.81	128
WALLOWA LK / SAN AUTH	SYSTEM	1	E	50	6.00	44.67	10	E110.67	129

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ADAIR VILL / CITY	STP IMP	1	E	0	5.48	91.18	10	E106.66	130
BROOKS / AREA	SYSTEM	1	E	0	4.60	91.18	10	E105.78	131
USA / REEDVILLE	INT	2/3	E	0	7.75	95.73	2	E105.48	132
USA / SUNSET	INT	2/3	E	0	6.35	95.73	2	E104.08	133
ALBANY / NE KNOXBUTTE	INT	1	E	0	5.09	91.18	7	E103.27	134
ODELL / SAN DIST	STP EXP	1	E	50	6.16	30.00	10	E 91.16	135
MERRILL / CITY	STP EXP	1	E	0	5.91	76.00	10	E 91.91	136
LYONS MEMA / AREA	SYSTEM	1	E	0	6.21	75.27	10	E 91.48	137
DETROIT / CITY	SYSTEM	1	E	0	5.58	75.27	10	E 90.85	138
IDANHA / CITY	SYSTEM	1	E	0	5.14	75.27	10	E 90.41	139
GATES / CITY	SYSTEM	1	E	0	4.95	75.27	10	E 90.22	140
SANDY / CITY	STP EXP	1	E	0	6.91	68.45	10	E 85.36	141
TANGENT / CITY	SYSTEM	1	E	0	5.45	57.09	10	E 72.54	142
SCAPPOOSE / CITY	STP IMP	1	E	0	7.00	48.00	10	E 65.00	143
CRESCENT / SAN DIST	SYSTEM	1	E	0	4.08	42.00	10	E 56.08	144

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355	CORVALLIS / CITY	SLUDGE	3	0180	522		1
545	PRINEVILLE / LAUGHLIN	INT	3	0280	265		2
486	BEND / CITY	STP	3	0180	255		3
486	BEND / CITY	EFF DISP	3	0280	750		3
486	BEND / S.E.	INT/COLL	3	0380	1690		3
487	DOUG CO / METRO	STP	2	0180	650		4
487	DOUG CO / METRO	STP	3	0680	5686	P1	4
487	DOUG CO / N. BANK	INT	2	0180	45		4
624	MWMC / REGIONAL	STP	2	0180	962	P1	5
		SLUDGE	2		173	P1	5
		INT/PS	2		75	P1	5
624	MWMC / AGRIPAC	EFF DISP	2		116	P1	5
624	MWMC / EUGENE	REHAB	2		93		5
624	MWMC / SPNGFIELD	REHAB	2		61		5
624	MWMC / REGIONAL	STP	3		11175	P1	5
		INT	3		874	P1	5
		SLUDGE	3		375	P1	5
	MWMC / EUGENE	REHAB	3		225	P1	5
	MWMC / SPNGFIELD	REHAB	3		150	P1	5
557	PORTLAND / CITY	SLUDGE-GAS UT	2	0180	256	P2	6
557	PORTLAND / CITY	SLUDGE-DISP	2	0680	437	P2	6
475	LA GRANDE / ISL CITY	INT	3	0480	750		7
476	GERVAIS / CITY	STP/INT	3	0180	433		8
559	LINCOLN CITY / CITY	INT	3	0180	1136	Priority 1 & 2	9
517	HERMISTON / CITY	INT	3	0180	1782		10
523	ST. PAUL / CITY	SYSTEM	3	0480	455		12
527	BCVSA / WESTSIDE	INT	3	1279	765		13
430	DAYTON / CITY	STP IMP	3	0280	320		14
652	BCVSA / JACKSONVILLE	INT	3	0980	400		15

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558	BCVSA / WHITE CITY	REHAB	3	1279	965		16
342	PORTLAND / S.E. RELVG	INT	3	0780	8475	P3	17
622	PORTLAND / S.W. 45TH	INT	3	1279	405		18
664	ALBANY / DRPRVL	INT / COLL	2	0680	192		19
464	TERREBONNE / TOWN	SYSTEM	1	0880	38		20
627	MEDFORD / FOOTHILLS	INT / COLL	3	0680	389		21
467	SILVERTON / NORWAY	INT / COLL	3	0980	620		22
467	SILVERTON / CITY	STP IMP	3	0980	2314		22
467	SILVERTON / CITY	INT	3	0980	1275		22
560	ROSEBURG / RIFLE RANGE	INT / COLL	3	0380	188		23
659	DEXTER / AREA	SYSTEM	2	0680	67		24
579	MADRAS / FRINGE	INT / COLL	2	0780	210		25
516	K. FALLS / STEW-LEN	INT / COLL	3	0980	1943		26
665	CORVALLIS / S.W. ANNEX	INT / COLL	2	0880	24		27
569	MONROE / CITY	STP / EXP	3	0880	58		28
569	/ NORTH	INT / COLL			76		28
569	/ CITY	REHAB	3		316		28
502	HAMMOND (WRTN) / CITY	FPR	1	0280	76		29
493	TRI CY CO / REGIONAL	STP	2	0180	563	S1 P1	31
		REHAB	2	0180	38	S1	31
		INT	2	0180	173	S1	31
		INT	2	0180	203	S2	31
		INT	2	0180	8	S3 P1	31
		INT	2	0180	30	S4 P1	31
611	USA / ROCK CREEK	INT	2	1279	7	P1	32
		INT	2	0380	120	P2 P3	32
		INT	3	0380	120	P1	32
431	BAKER / CITY	STP IMP	2	0180	250		33
681	SEASIDE / CITY	STP IMP	2	0180	225		34
		REHAB			94		34

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445	DONALD / CITY	SYSTEM	3	0980	913		35
646	SALEM / CITY	FPR	1	0780	269	PI	36
494	NEWBERG / CITY	STP IMP	2	0780	324		37
		REHAB			59		37
		I/I CORR			42		37
682	USA / HILLSBORO	INT	1	0880	85		38
605	PORTLAND / ELK ROCK	INT	3	0180	308		39
642	GRND RONDE / AREA	SYSTEM	1	0680	12		40
426	MULT CO / INVERNESS	INT	2	1279	525		41
653	/ E MULT CO CONSORTIUM	FPR	1	0180	200		41
567	HAPPY VAL / CITY	INT	2	0980	42		42
628	COOS BAY / CITY NO. 1	STP IMP	1	0680	77		43
526	CLACK CO / RHODO-WLCH	STP	3	0280	770		44
526	CLACK CO / RHODO-WLCH	INT (WLCH)	3	0680	460		44
592	DALLAS / CITY	REHAB	2	0380	38		45
		I/I CORR					45
638	CLATSOP PL / AREA	INT	2	0980	150		46
449	FALLS CITY / CITY	SYSTEM	1	0180	19		47
639	COVE ORCH / AREA	SYSTEM	2	0680	31		48
629	DRAIN / CITY	STP IMP	1	0380	46		49
437	WAUNA-WESPT / SAN DIST	SYSTEM	2	0180	320		50
537	SW LINCOLN / SAN DIST	SYSTEM	1	0280	55		51
619	ASTORIA / WILLIAMSPT	INT	2/3	0580	730		52
583	IONE / CITY	SYSTEM	2	0880	57		53
588	MT ANGEL / CITY	STP IMP	2	1279	15		54
		REHAB	3	0380	69		54
667	S SUBURBAN / SAN DIST	STP IMP	2	0680	64		55
565	STANFIELD / CITY	STP IMP	2	0280	32		56
472	ELGIN / CITY	STP IMP	2	0980	62		57
615	CARLTON / CITY	STP IMP	2	0180	43		58

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515	SCIO / CITY	STP IMP	2	0580	42		59
		I/I CORR			10		59
511	CANNON BCH / CITY	STP IMP	2	0780	150		62
575	USA / GASTON	INT	2	0180	75		66
513	CRESWELL / CITY	STP IMP	2	0480	70		67
506	SHERIDAN / CITY	REHAB	2	1179	15		68
		I/I CORR					68
506	SHERIDAN / CITY	REHAB	3	0780	129		68
		I/I CORR			105		68
554	ENTERPRISE / CITY	STP IMP	2	0980	69		70
429	EAGLE PT / CITY	INT	2	0480	38		71
514	OAKRIDGE / CITY	STP IMP	2	0280	80		72
573	LOWELL / CITY	STP IMP	2	0380	32		73
		REHAB					73
516	K-FALLS / REGIONAL	STP EXP	2	1179	198		75
		I/I CORR					75
533	FLORENCE / CITY	STP IMP	2	0180	105		78
576	USA / BANKS	INT	2	0980	140		79
648	HEPPNER / CITY	STP IMP	1	0880	26		84
469	MODOC PT / TOWN	SYSTEM	1	0980	25		85
519	JOSEPH / CITY	STP IMP	2	0880	75		88
651	FOSSIL / CITY	STP IMP	1	0680	15		91
595	HALSEY / CITY	STP IMP	1	0980	35		93
635	ATHENA / CITY	STP IMP	1	0780	15		94
582	IRRIGON / CITY	SYSTEM	2	0580	56		95
670	TRI CITY / MYRTLE CREEK	I/I CORR	1	0380	52		98
541	SISTERS / CITY	SYSTEM	2	0880	200		109
522	USA / NORTH PLAINS	INT	1	0880	25		124

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486	BEND / N.W.	INT/COLL	3	0181	2550		3
487	DOUG CO /METRO	STP	3	0881	3276	P2	4
487	DOUG CO / N. BANK	INT	3	0481	3503		4
624	MWMC / REGIONAL	STP	2	0181	84	P2	5
		INT/PS	2		125	P2	5
624	MWMC / AGRIPAC	EFF DISP	2		78	P2	5
624	MWMC / REGIONAL	STP	3		20508	P2	5
		INT/PS	3		7022	P3	5
624	MWMC / AGRIPAC	EFF DISP	3		375	P1	5
624	MWMC / REGIONAL	SLUDGE	2	0182	450	P2	5
		INT/PS	2		40	P3	5
624	MWMC / REGIONAL	INT/PS	3		14536	P4	5
624	MWMC / AGRIPAC	EFF DISP	3		5346	P2	5
	MWMC / EUGENE	REHAB	3		3363	P2	5
	/ SPRINGFIELD	REHAB	3		2242	P2	5
624	MWMC / REGIONAL	STP	3	0183	4939	P3	5
		SLUDGE	3		10099	P2	5
		P.S.	3		3377	P5	5
557	PORTLAND / CITY	SLUDGE-GAS UT	3	0181	2719	P2	6
557	PORTLAND / CITY	SLUDGE-DISP	3	0481	7268	P2	6
559	LINCOLN CY / CITY	INT	3	1181	270	Priority 3 & 4	9
616	ROSEBURG / CITY	REHAB	3	1081	1682		11
342	PORTLAND / SE RELVG	INT	3	0781	3000	P4	17
664	ALBANY / DRPRVL	INT/COLL	3	0481	1275		19
464	TERREBONNE / TOWN	SYSTEM	2	0781	189		20
464	TERREBONNE / TOWN	SYSTEM	3	0982	563		20
467	SILVERTON / CITY	REHAB	3	0581	176		22
579	MADRAS / FRINGE	INT/COLL	3	0881	1882		25
665	CORVALLIS / SW ANNEX	INT/COLL	3	0881	455		27

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512	COTTAGE GV / CITY	STP IMP	3	1080	2618		30
512	COTTAGE GV / CITY	REHAB	3	0381	169		30
		I/I CORR			174		30
493	TRI-CY CO / REGIONAL	STP	2	1080	653	S1 P2	31
		STP	3	0381	4620	S1 P1	31
		STP	3	1081	7500	S1 P2	31
		STP	3	1082	10500	S1 P3	31
		INT	3	1080	2018	S1 P1	31
		INT	3	1081	233	S1 P2	31
		REHAB	3	1080	960		31
		INT	3	1080	1770	S2 P1	31
		INT	3	1081	938	S2 P2	31
		INT	2	1080	128	S3 P2	31
		INT	3	1081	938	S3	31
		INT	3	1080	315	S4 P1	31
		INT	2	1081	60	S4 P2	31
		INT	3	1082	675	S4 P2	31
611	USA / ROCK CREEK	INT	3	1080	518	P2	32
		INT	3	0581	1000	P3	32
431	BAKER / CITY	STP IMP	3	0381	3225		33
681	SEASIDE / CITY	STP IMP	3	1280	2873		34
		REHAB			521		34
646	SALEM / CITY	FPR	1	1280	418	P2	36
646	SALEM / CITY	FPR	1	0981	216	P3	36
494	NEWBERG / CITY	STP IMP	3	0781	2969		37
		SLUDGE					37
494	NEWBERG / CITY	REHAB	3	1081	537		37
		I/I CORR			383		37
682	USA / HILLSBORO	INT	2	1080	150		38
682	USA / HILLSBORO	INT	3	0881	1500		38

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642	GRND RONDE / AREA	SYSTEM	2	0581	23		40
642	GRND RONDE / AREA	SYSTEM	3	0682	489		40
426	MULT CO / INVERNESS	INT	3	1080	2097		41
567	HAPPY VAL / CITY	INT	3	0881	375		42
628	COOS BAY / CITY NO 1	STP IMP	2	0581	219		43
628	COOS BAY / CITY NO 1	STP IMP	3	0682	949		43
526	CLACK CO / RHODO-WLCH	INT (TIMB)	3	1180	216		44
526	CLACK CO / RHODO-WLCH	INT (RHODO)	3	0381	173		44
592	DALLAS / CITY	REHAB	3	1180	375		45
		I/I CORR			375		45
638	CLATSOP PL / AREA	INT	3	0981	1875		46
449	FALLS CITY / CITY	SYSTEM	2	1080	53		47
449	FALLS CITY / CITY	SYSTEM	3	1081	450		47
639	COVE ORCH / AREA	SYSTEM	3	0781	140		48
629	DRAIN / CITY	STP IMP	2	1280	84		49
629	DRAIN / CITY	STP IMP	3	1081	695		49
437	WAUN-WESPT / SAN DIST	SYSTEM	3	0281	1203		50
537	SW LINCOLN / SAN DIST	SYSTEM	2	1280	288		51
537	SW LINCOLN / SAN DIST	SYSTEM	3	0282	1750		51
583	IONE / CITY	SYSTEM	3	0781	369		53
588	MT ANGEL / CITY	STP IMP	3	1080	215		54
667	S SUBURBAN / SAN DIST	STP IMP	3	0781	641		55
565	STANFIELD / CITY	STP IMP	3	0381	463		56
472	ELGIN / CITY	STP IMP	3	0281	500		57
615	CARLTON / CITY	STP IMP	3	1281	650		58
515	SCIO / CITY	STP IMP	3	0781	368		59
		I/I CORR			41		59
499	PRAIRIE CY / CITY	STP IMP	3	1280	805		60
631	VERNONIA / CITY	STP IMP	1	0481	41		61
631	VERNONIA / CITY	STP IMP	2	1181	71		61

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631	VERNONIA / CITY	STP IMP	3	1082	638		61
511	CANNON BCH / CITY	STP IMP	3	0981	807		62
604	CLACK CO / KELLOGG	SLUDGE	2	1180	274		63
604	CLACK CO / KELLOGG	SLUDGE	3	1181	1095		63
655	PORTLAND / COL BV RLVG	INT	1	1180	30		64
655	PORTLAND / COL BV RLVG	INT	2	1181	120		64
655	PORTLAND / COL BV RLVG	INT	3	1182	1650		64
	USA / CEDAR MILL	INT	3	1080	600		65
575	USA / GASTON	INT	3	1080	825		66
513	CRESWELL / CITY	STP IMP	3	0581	886		67
668	CORVALLIS / CITY	CSO	1	1280	75		69
668	CORVALLIS / CITY	CSO	2	0681	365		69
668	CORVALLIS / CITY	CSO	3	0882	2400		69
554	ENTERPRISE / CITY	STP IMP	3	1081	209		70
429	EAGLE PT / CITY	INT	3	0181	563		71
514	OAKRIDGE / CITY	STP IMP	3	1180	800		72
573	LOWELL / CITY	STP IMP	3	0281	189		73
		REHAB			171		73
594	ESTACADA / CITY	STP IMP	2	1080	150		74
594	ESTACADA / CITY	STP IMP	3	0981	677		74
516	K-FALLS / REGIONAL	STP EXP	3	1280	507		75
		I/I CORR	3		274		75
661	GRANTS PS / CITY	FPR	1	0181	23		76
661	GRANTS PS / CITY	I/I CORR	2	0182	23		76
661	GRANTS PS / CITY	I/I CORR	3	0283	415		76
620	PHILOMATH / CITY	STP IMP	1	1280	20		77
620	PHILOMATH / CITY	STP IMP	2	0781	63		77
620	PHILOMATH / CITY	STP IMP	3	0582	578		77
533	FLORENCE / CITY	STP IMP	3	1080	2095		78

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576	USA / BANKS	INT	3	0481	1309		79
617	OAKLAND / CITY	STP IMP	2	0181	56		80
617	OAKLAND / CITY	STP IMP	3	1281	302		80
672	BROOKINGS / CITY	STP IMP	1	0181	41		81
672	BROOKINGS / CITY	STP IMP	2	0282	94		81
672	BROOKINGS / CITY	STP IMP	3	0183	769		81
539	ST. HELENS	STP IMP	2	0281	447		82
539	ST. HELENS	STP IMP	3	0282	2931		82
586	RAINIER / CITY	I/I CORR	2	0281	113		83
586	RAINIER / CITY	I/I CORR	3	0282	796		83
648	HEPPNER / CITY	STP IMP	2	0781	270		84
648	HEPPNER / CITY	STP IMP	3	0982	1005		84
469	MODOC PT / TOWN	SYSTEM	2	0781	55		85
469	MODOC PT / TOWN	SYSTEM	3	0882	390		85
618	NEWPORT / CITY	STP EXP	1	1180	50		86
618	NEWPORT / CITY	STP EXP	2	0681	100		86
618	NEWPORT / CITY	STP EXP	3	0782	2000		86
473	DUFUR / CITY	STP IMP	2	0381	43		87
473	DUFUR / CITY	STP IMP	3	0182	283		87
519	JOSEPH / CITY	STP IMP	3	0881	315		88
518	ONTARIO / CITY	STP IMP	2	1180	164		89
518	ONTARIO / CITY	STP IMP	3	1181	656		89
572	THE DALLES / FOLEY LKS	INT	2/3	0981	466		90
651	FOSSIL / CITY	STP IMP	2	0581	255		91
651	FOSSIL / CITY	STP IMP	3	0782	945		91
589	MILTN FRWTR / CITY	STP IMP	2	1080	263		92
589	MILTN FRWTR / CITY	STP IMP	3	0981	1322		92
595	HALSEY / CITY	STP IMP	2	0781	62		93
595	HALSEY / CITY	STP IMP	3	0882	868		93
635	ATHENA / CITY	STP IMP	2	0581	150		94

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635	ATHENA / CITY	STP IMP	3	0582	650		94
582	IRRIGON / CITY	SYSTEM	3	0781	336		95
506	SHERIDAN / WEST AREA	INT	2/3	1080	151		96
607	BCVSA / WHETSTONE	INT	1	0181	39		97
607	BCVSA / WHETSTONE	INT	2/3	1081	1125		97
670	TRI CITY / MYRTLE CREEK	I/I CORR	2	0481	88		98
670	TRI CITY / MYRTLE CREEK	I/I CORR	3	0582	715		98
673	WINSTON-GR / LANDERS LN	INT	1	1280	9		99
673	WINSTON-GR / LANDERS LN	INT	2/3	1081	143		99
674	BORING / AREA	SYSTEM	1	0981	32		100
674	BORING / AREA	SYSTEM	2	0382	65		100
674	BORING / AREA	SYSTEM	3	0483	375		100
516	K-FALLS / PELICAN CY	INT	2/3	1080	510		101
592	DALLAS / EAST	INT	2/3	1080	618		102
634	USA / DURHAM	SLUDGE	3	0684	6300		103
662	SODAVILLE / CITY	SYSTEM	1	0181	21		104
662	SODAVILLE / CITY	SYSTEM	2	0482	46		104
662	SODAVILLE / CITY	SYSTEM	3	0583	506		104
564	N POWDER / CITY	STP IMP	2	0281	34		105
564	N POWDER / CITY	STP IMP	3	1181	81		105
675	WALLOWA / CITY	STP IMP	1	1080	15		106
675	WALLOWA / CITY	STP IMP	2	0481	113		106
675	WALLOWA / CITY	STP IMP	3	0382	450		106
597	YONCALLA / CITY	STP IMP	1	1181	26		107
597	YONCALLA / CITY	STP IMP	2	0782	47		107
597	YONCALLA / CITY	STP IMP	3	0483	574		107
643	HUBBARD / CITY	STP IMP	1	1081	30		108
643	HUBBARD / CITY	STP IMP	2	0582	57		108
643	HUBBARD / CITY	STP IMP	3	0283	546		108
541	SISTERS / CITY	SYSTEM	3	0981	682		109

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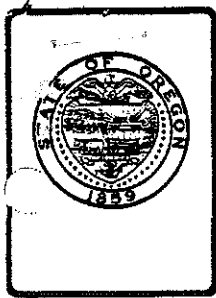
<u>PROJECT NUMBER</u>	<u>COMMUNITY/PROJECT</u>	<u>PROJECT DESCRIPTION</u>	<u>STEP</u>	<u>TARGET CERT.</u>	<u>GRANT (\$1000 s)</u>	<u>COMMENT</u>	<u>PRIORITY NUMBER</u>
617	OAKLAND / UNION GAP	INT	2/3	0183	98		110
649	CAMAS VLY / AREA	SYSTEM	1	1080	8		111
649	CAMAS VLY / AREA	SYSTEM	2	0581	23		111
649	CAMAS VLY / AREA	SYSTEM	3	0782	94		111
602	NESKOWIN / SAN AUTH	SYSTEM	1	0681	39		112
602	NESKOWIN / SAN AUTH	SYSTEM	2	1082	71		112
602	NESKOWIN / SAN AUTH	SYSTEM	3	1083	1155		112
447	MILL CITY / CITY	SYSTEM	1	1081	23		113
447	MILL CITY / CITY	SYSTEM	2	0482	49		113
447	MILL CITY / CITY	SYSTEM	3	0483	698		113
532	TILLAMOOK / HWY 101	INT	2/3	0282	366		114
536	LAPINE / TOWN	SYSTEM	1	1080	45		115
536	LAPINE / TOWN	SYSTEM	2	0781	225		115
536	LAPINE / TOWN	SYSTEM	3	0882	675		115
456	MERLIN / COL VLY	SYSTEM	1	0682	17		116
456	MERLIN / COL VLY	SYSTEM	2	0683	56		116
456	MERLIN / COL VLY	SYSTEM	3	0284	695		116
496	JUNCTION CY / CITY	STP IMP	2	1082	62		117
496	JUNCTION CY / CITY	STP IMP	3	1083	772		117
521	ALBANY / NORTH AREA	INT	1	1081	28		118
521	ALBANY / NORTH AREA	INT	2/3	0882	996		118
443	TURNER / CITY	SYSTEM	1	1280	20		119
443	TURNER / CITY	SYSTEM	2	0981	54		119
443	TURNER / CITY	SYSTEM	3	0482	686		119
671	PILOT ROCK / CITY	STP IMP	1	1080	15		120
671	PILOT ROCK / CITY	STP IMP	2	0881	300		120
671	PILOT ROCK / CITY	STP IMP	3	0882	900		120
645	PRINEVILLE / CITY	STP IMP	2	0382	608		121
645	PRINEVILLE / CITY	STP IMP	3	0382	608		121
442	MAPLETON / AREA	SYSTEM	1	1180	38		122

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442	MAPLETON / AREA	SYSTEM	2	1081	75		122
442	MAPLETON / AREA	SYSTEM	3	0982	713		122
660	VENETA / CITY	STP EXP	1	0482	18		123
660	VENETA / CITY	STP EXP	2	0183	38		123
660	VENETA / CITY	STP EXP	3	1083	512		123
522	USA / N. PLAINS	INT	2/3	0282	742		124
458	CORVALLIS / AIRPORT	STP EXP	2	0581	49		125
458	CORVALLIS / AIRPORT	STP EXP	3	0282	450		125
542	CARMEL FOUL / SAN DIST	SYSTEM	2	1180	101		126
542	CARMEL FOUL / SAN DIST	SYSTEM	3	0781	676		126
647	TWIN ROCKS / SAN DIST	STP EXP	2	0181	75		127
647	TWIN ROCKS / SAN DIST	STP EXP	3	0182	300		127
516	K-FALLS / RIVERSIDE	INT	2/3	0182	975		128
601	WALLOWA LK / SAN AUTH	SYSTEM	1	1081	8		129
601	WALLOWA LK / SAN AUTH	SYSTEM	2	0782	38		129
601	WALLOWA LK / SAN AUTH	SYSTEM	3	0783	188		129
676	ADAIR VIL / CITY	STP IMP	1	1080	14		130
676	ADAIR VIL / CITY	STP IMP	2	0481	26		130
676	ADAIR VIL / CITY	STP IMP	3	0582	338		130
637	BROOKS / AREA	SYSTEM	1	0481	9		131
637	BROOKS / AREA	SYSTEM	2	0282	17		131
637	BROOKS / AREA	SYSTEM	3	0283	375		131
613	USA / REEDVILLE	INT	2/3	1081	640		132
610	USA / SUNSET	INT	2/3	1082	536		133
460	ALBANY / NE KNOXBUTTE	INT	1	0282	48		134
460	ALBANY / NE KNOXBUTTE	INT	2/3	1082	798		134
644	ODELL / SAN DIST	STP EXP	1	1082	19		135
644	ODELL / SAN DIST	STP EXP	2	0483	60		135
644	ODELL / SAN DIST	STP EXP	3	0584	675		135
540	MERRILL / CITY	STP EXP	1	1181	19		136

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540	MERRILL / CITY	STP EXP	2	0582	60		136
540	MERRILL / CITY	STP EXP	3	0683	675		136
678	LYONS-MEMA / REGIONAL	SYSTEM	1	0681	26		137
678	LYONS-MEMA / REGIONAL	SYSTEM	2	0182	49		137
678	LYONS-MEMA / REGIONAL	SYSTEM	3	1182	563		137
477	DETROIT / CITY	SYSTEM	1	0481	9		138
477	DETROIT / CITY	SYSTEM	2	0382	17		138
477	DETROIT / CITY	SYSTEM	3	0383	394		138
679	IDANHA / CITY	SYSTEM	1	0182	11		139
679	IDANHA / CITY	SYSTEM	2	0882	30		139
679	IDANHA / CITY	SYSTEM	3	0883	581		139
680	GATES / CITY	SYSTEM	1	1281	9		140
680	GATES / CITY	SYSTEM	2	0682	21		140
680	GATES / CITY	SYSTEM	3	0683	489		140
551	SANDY / CITY	STP EXP	1	1281	16		141
551	SANDY / CITY	STP EXP	2	0682	46		141
551	SANDY / CITY	STP EXP	3	0683	945		141
471	TANGENT / CITY	SYSTEM	1	0381	8		142
471	TANGENT / CITY	SYSTEM	2	1081	113		142
471	TANGENT / CITY	SYSTEM	3	1082	1125		142
663	SCAPPOOSE / CITY	STP IMP	1	1281	30		143
663	SCAPPOOSE / CITY	STP IMP	2	0682	75		143
663	SCAPPOOSE / CITY	STP IMP	3	0683	765		143
546	CRESCENT / SAN DIST	SYSTEM	1	1081	9		144
546	CRESCENT / SAN DIST	SYSTEM	2	0882	60		144
546	CRESCENT / SAN DIST	SYSTEM	3	0583	562		144



FILE
No Action - Re-consider
Now, EQC

Environmental Quality Commission

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

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item J, October 19, 1979, EQC Meeting

Proposed Adoption of Noise Control Regulations for Airports,
OAR 340-35-045; Amended Definitions, 340-35-015 and Airport
Noise Control Procedure Manual, NPCA - 37.

BACKGROUND

Nature of Problem

As early as 1971 airport and aircraft noise was identified by the Oregon Legislature as an area appropriate for Commission regulation. A statewide survey conducted by the Department in 1972 indicated that Oregon citizens felt the airport noise problem should be addressed through state rules if federal controls were not effective.

The Department has received citizen complaints regarding aircraft and airport noise since the noise control program was established. Most complaints are from operations at the larger airports, and describe excessive noise impacting a resident's ability to communicate and sleep, but in several instances vigorous opposition to aircraft operations at very small airports has been referred to the Department.

An attitudinal survey recently conducted near the Portland airport by an independent research organization showed the public residing in the "vicinity area" rated noise from aircraft a problem second only to "property taxes" and more serious than "crime". The "vicinity area" residents were exposed to airport noise ranging from approximately Ldn 50 to Ldn 70 with a weighted average of approximately Ldn 60 decibels.

In October, 1978, the Environmental Quality Commission was petitioned by the Oregon Environmental Council and members of the public to include airports within existing noise control rules. The Commission determined that airport noise would not be best controlled by an expansion of existing rules, and directed staff to draft rules specifically designed to address airport/aircraft noise.

At the February EQC meeting, draft rules were submitted. The Commission directed staff to conduct informational hearings and to meet with interested parties to gather input on the need for rule promulgation and to solicit testimony on the



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staff's draft rule. During April, hearings were held in Pendleton, Salem, Medford and Portland, and staff consulted with various federal, state and local officials to solicit information. Portions of the draft rule were revised as a result of the information received during this process.

In May the Commission authorized the Department to hold public hearings on the revised draft rule, entitled Proposed Noise Control Regulations for Airports. Hearings were held at the following locations and times:

Bend	August 7	7 pm
Eugene	August 9	7 pm
Portland	August 16	7 pm

The hearing record remained open for additional written comments until September 1 at the request of several interested parties.

Overview of Proposed Rule

The purpose of the proposed rule is to provide a mechanism for addressing existing airport noise problems and to implement preventative measures to address potential problems.

The seven air carrier airports would be required to develop a noise impact boundary (Ldn 55 decibel contour) within twelve months of rule adoption. Then, if it is shown that a problem exists, and that an airport noise abatement program would be beneficial, the airport may be required to initiate the development of a program. The airport noise abatement program would contain an airport operational control plan and a land use and development plan, and would be brought to the Commission for final approval.

After it is shown that a problem exists at a non-air carrier airport, the proprietor would be required to provide data to the Department, so that Department staff could calculate the airport noise impact boundary. As with the larger airports, the abatement program would only then be required if need were to be shown.

Any new or modified airport would develop an abatement program to ensure that land use and development would be compatible with the airport.

Any airport noise problem brought to the Department's attention would be the subject of an informal resolution process. The Director would consult with all affected parties to attempt to resolve the problem prior to requiring any noise abatement program development.

Federal Activity

Federal action to reduce airport and aircraft noise has realized limited benefit. The Federal Aviation Administration has established noise emission standards for newly manufactured aircraft, but large numbers of older, noisy, aircraft will remain in the national transportation system for some years. An FAA regulation designed to quiet the present commercial fleet requires the fleet to meet specific emission limits by 1985 either by replacement with new, quiet aircraft, or by retrofit of existing aircraft with sound reduction equipment. Two bills now before Congress, S 413 and HR 3942, would provide open-ended waivers and exemptions to the 1985 compliance deadline. Most of the airline industry supports this legislation as public funding has not been identified to replace or retrofit the non-complying aircraft.

The federal Environmental Protection Agency has limited authority to regulate airport and aircraft noise; its statutory role is to advise and recommend regulations to FAA. In an Airport Noise Abatement regulation proposed to FAA by EPA in 1976, EPA identified three primary factors responsible for airport noise problems: (1) the introduction of jets into the air carrier fleet in 1959, (2) airport encroachment by neighboring communities, and (3) airport expansion and operational increases and changes. The proposed EPA rule would have required all air carrier airports to develop and implement noise abatement plans, with the scope of the rule expanding to cover general aviation at a later date. All land exposed to aircraft noise levels in excess of Ldn 55 decibels would be within the study area of an abatement plan. The EPA proposal was published in the Federal Register on November 22, 1976, but FAA has taken no formal action toward the adoption or rejection of this proposal.

Local Activity

Approximately 30 Oregon airports have adopted airport master plans, many of which include an analysis of the impact of aircraft noise on the surrounding communities. However, these plans do not address noise impacts in a manner that will ensure that preventative and corrective actions will be taken. Federal support is available to develop noise control and land use compatibility plans, but no Oregon airports have developed these voluntary noise control plans. Master planning effort is continuing with approximately 13 airports now in the process of developing plans.

Oregon Airports

Oregon has 336 airports and heliports. Of these, 117 are open for public use; the remaining 219 are special purpose facilities such as heliports and small private strips. The State Aeronautics Division owns 37 airports while 41 are owned by municipalities. Most of the smaller strips are privately owned, and a few of the larger general aviation airports are also privately owned.

The Aeronautics Division classification system designates public-use airports in Classes A through D, with a fifth category called "landing strip". Class D includes the seven air carrier airports that have commercial air service with high numbers of total operations including business jets. (Eugene, Klamath Falls, Medford, Pendleton, Portland International, Redmond and Salem.) Class C contains those airports with moderate to high numbers of operations (approximately 50,000 to 200,000 annually) including business jets and heavy twin engine aircraft. Approximately fifteen airports are in this category, including Hillsboro, Aurora and Bend. Class B are those general aviation facilities that have a moderate number of aircraft operations (approximately 10,000 to 50,000 annually) including light twin engine and few or no business jet activity. Included in this category are Independence, Hood River, Scappoose and approximately 27 airports. Class A airports are those with low number of operations of mostly single engine craft. Approximately 30 facilities are in this category, including Seaside, Cascade Locks and Arlington. The "landing strip" category contains approximately 80 public-use facilities. These strips are normally not paved and do not have fueling and maintenance facilities. Most of these strips have operations of less than 2000 annually.

The approximately 220 remaining airports from the 336 total are the non public-use facilities such as heliports and private strips with very low numbers of operations.

A review of airport ownership has found that most major public-use facilities are publicly owned. Of the 43 airports with annual operations greater than 10,000, approximately six are privately owned. The remainder are owned by city or county government, the State Aeronautics Division, and Port Districts. Examples of major privately owned airports are Mulino in Clackamas County and Sunriver in Deschutes County.

SUMMARY OF TESTIMONY

In general, testimony received from the noise-impacted public was supportive of the proposed rule. Much of this testimony described the frustration of attempting to determine which agency is responsible for noise abatement. Airport proprietors often refer complaints to the FAA explaining that the federal government controls all flight activities at the airport, though the FAA does not provide any corrective action to resolve complaints. Testimony recommended that one agency have responsibility for controlling airport noise.

Several persons noted that airport proprietors had developed master plans projecting no increase in noise levels although the numbers of operations at the airport were projected to increase. The basis for this analysis is the FAA regulation requiring a quieter commercial fleet by 1985. Congress is considering two bills that would rescind the FAA regulation and testimony indicated public concern that the predicted decrease in individual aircraft emission levels will not be forthcoming.

Impacted citizens complained of interference with communication activities outside and inside their homes. Conversation is disrupted, telephone usage is hampered and leisure activities involving television and radio are disrupted, increasing the general annoyance of aircraft overflights. Instances of frightened children being awakened by noisy overflights were reported. Older people, more sensitive to sleep disturbance, complained of inability to sleep due to aircraft noise. A resident near the Hillsboro airport complained of business jet activities. She noted that the ambient noise level at night is approximately 20 decibels, but when a business jet departs, the noise increases to 98 decibels.

Recent changes in flight patterns have also resulted in citizen complaints. A group of citizens located in the Northwest hills of Portland complained that the Portland airport flight pattern toward the south passes directly over its homes, whereas in the past, the pattern appeared to allow the craft to gain more altitude flying west before heading south. Many residents that live closer to the Portland airport believe the aircraft are not flying the published flight paths or that flight paths could be modified to decrease impacts.

Several local jurisdictions were supportive of the preventative aspects of the proposal. They believe the proprietor should operate the airport in as quiet a manner as practicable while recognizing that land use controls implemented by the local jurisdiction will prevent future conflicts. They also believe the proprietor, who is responsible for airport noise, must have primary responsibility for the development of the airport land use compatibility plan.

During this rule development process, the Department has received approximately 82 complaints on airport noise. Many complaints are due to operations of the Portland airport, however other Oregon airports have been the source of complaints. Department files show complaints from the airports at Salem, Corvallis, Hillsboro, Troutdale, McMinnville, Sandy, Sunriver and Twin Oaks in Washington County. Complaints have also been received on proposed new airports in Clackamas and Washington Counties and at Junction City. The files also show complaints of amphibious operations on the Willamette River in Marion County and in Clackamas County.

Adverse testimony to the proposed rule generally came from airport proprietors and pilots. Many believed the scope of the rule was too broad in that it could impact any airport in Oregon. Although the rule is drafted to only address "problem" airports, the threat of regulation to any airport was not acceptable to those associated with smaller airports.

Testimony was offered that agreed that an airport operational plan be developed by the proprietor, however it was suggested that the airport land-use compatibility planning be the responsibility of local government.

The potential economic impact of the rule was also stressed in the testimony. It was suggested that the cost of development of an airport noise abatement plan and costs to implement any plan would be excessive. For example, the Port of Portland presented an analysis of a soundproofing program to insulate 4500 homes. The calculated cost of such a program was \$21 million.

Testimony was offered expressing concern that sections of the proposed rule conflict with preemptive federal authority. The Oregon Aeronautics Division recommended that changes be made in the rule to allow FAA authority to approve any noise abatement plan. A proposal submitted by the Port of Portland would have included within the rule the FAA determination of what kinds of actions are appropriate for airport proprietors, and limiting responsibility under the rule to those actions. (This testimony, while taken directly from an FAA policy document, omitted portions of the document not in harmony with the Port's position.)

Concern was expressed over the proposed rule's Noise Impact Boundary. Some testimony was received suggesting that the boundary should be located at the Ldn 65, rather than the Department's proposed level of Ldn 55. Testimony submitted by the FAA suggested that the area between Ldn 55 and Ldn 65 should be studied on a case-by-case basis. FAA's concern was that abatement costs would require significant monies and that FAA is not aware of a source of funding for areas below Ldn 65 at this time.

EVALUATION

Procedural Highlights

The following provides a brief explanation of procedural requirements under the proposed rule. As proposed, the rule initially could be applied to any Oregon airport, however, those airports with small numbers of operations would only be affected by the voluntary informal resolution portion of the rule.

Initial activity under the proposed rule would occur twelve months after adoption. At that time, the seven current air carrier airports within the state would submit to the Department, a map, showing the airport facility and the noise impact boundary (Annual Average Ldn 55 noise contour).

Upon indication that a noise problem exists, or is likely to exist in the future at a non-air carrier airport, the Director would seek to informally resolve the problem in conjunction with other agencies and the affected parties. If the resolution process failed, the Director could require the proprietor to submit to the Department the information the Department would need to calculate the Noise Impact Boundary and to assess its impact.

An analysis of the noise impact of an airport relative to the Noise Criterion would be submitted pursuant to any master plan effort.

If the analysis of the Noise Impact Boundary, in conjunction with other available material, indicated that a major noise problem existed that might be resolvable, the Director would try to resolve the problem informally. If no resolution could be reached, the Director would hold a hearing on the question of need for a noise abatement program at the facility. If an affirmative determination was made, the proprietor would develop an abatement program consisting of three elements:

1. A map of the facility with existing and future noise contours;
2. An operational plan, in which the proprietor would analyze a number of possible abatement measures, and propose to implement those practicable;
3. A proposed land use and development control plan.

The program elements would be developed with participation of local government, affected state and federal agencies and the public in general. The proprietor would, if appropriate, recommend zone or comprehensive land use changes to the affected local government(s) and would seek concurrence from FAA on any operational control element for which concurrence would be necessary. The airport proprietor would bring the final noise abatement program to the Commission for adoption; programs would be renewed every five years, and a revision could be ordered at an earlier date by the Department if a change in use occurred at the facility.

Any noise contour or boundary prepared by computer would be verified by actual sound measurements.

Criteria

Staff believes the airport plan should address all area within a noise contour of Ldn 55 decibels described by airport operations. This "criterion" contour is determined by averaging annual operations, so for small general aviation airports the annual contour could be 5 to 10 decibels less than the worst day contour. Nonetheless, staff believes the annual average method is adequate to describe a gross impact area.

The Ldn 55 decibel level is approximately equivalent to the standards industry must now meet under the Commission rules for industrial and commercial noise sources. These rules are based upon a desire to provide adequate protection of public health, safety and welfare.

The FAA and the Oregon Aeronautics Division have recommended the rule be limited to areas within the Ldn 65 contour. FAA stated that abatement monies are only available to the Ldn 65 level at this time. It also stated that "the Ldn 65 contour as a study area is impractical in some cases" as airport noise may not be detectable above other noise sources. Staff believes anyone within the Ldn 55 contour will be impacted by aircraft noise. Even people residing near major freeways and impacted by significant freeway noise, will detect aircraft noise at the airport Ldn 55 decibel contour. The justification for ignoring airport noise because of high background noise is not supported by citizen complaints nor by field measurements. If noise caused by traffic impacts the front yard of a residence, then outdoor noise sensitive activities, such as a barbeque, normally are conducted in the backyard. In such cases the backyard is shielded from street noise and measured levels are 15 to 20 decibels lower. Aircraft noise will impact all portions of the noise sensitive property and no physical barrier can protect outdoor activities.

It is interesting to review the Oregon Aeronautics Division's document, Airport Compatibility Planning, published in 1978. The document recommends the use of a worst day Ldn 55 boundary for land use planning. The worst day contour may be 5 to 10 decibels greater than the proposed average day contour. The document also notes that "if community sensitivity to noise is unusually high, it may be desirable to develop a noise contour of less than Ldn 55 as the outer boundary of noise impacted area."

The Port of Portland, although concerned that the Ldn 55 level is too low to justify corrective action by the proprietor, retained the Ldn 55 level in its latest proposed amendments to the rule. The Port believes the proprietor's responsibility should end at the Ldn 65 contour and then the local land use jurisdiction must accept responsibility for airport noise. This position is partly based upon FAA funding policy that allows the proprietor to implement compatibility measures within the Ldn 65 contour.

The federal EPA has established in its "Levels" document, that an outdoor noise level of Ldn 55 decibels is protective of public health and welfare. With typical construction of homes, interior activities such as speech communication and sleep will be protected indoors using the Ldn 55 outdoors criteria. It should be noted that the EPA Ldn 55 decibel criteria is not a national ambient standard, nor can the cost of compliance justify reducing all sources of noise to this level. However, EPA has proposed to FAA an airport noise abatement regulation that uses the Ldn 55 criteria to define the gross study area.

The federal Department of Housing and Urban Development (HUD) has established environmental criteria and standards to be used for the development of housing with guaranteed federal loans. The HUD standards establish a minimum standard for federally guaranteed housing of Ldn 65 decibels. The Ldn 65 standard provides some marginal protection from excessive noise to residents of buildings constructed using HUD guaranteed mortgages, but it is clear that the HUD standard has been established to ensure only minimum protection from noise impacts. HUD has recently recongized Ldn 55 as an appropriate exterior noise goal.

Scope

Although suggestions have been made to limit the scope of the proposed rule at some arbitrary minimum operations level, support for these proposals appear to come from a concern over financial burdens that may be imposed on the smaller facilities. Additionally, the small facilities appear to generate only a small percentage of total airport noise complaints.

The proposed rule could only impact those airports that have been determined to have noise problems that could not be resolved using informal consultation methods. If no resolution is gained during the informal procedure, the Director could then notify a non-carrier airport to submit necessary information for the Department staff to calculate the Ldn 55 decibel noise impact boundary. If the boundary includes or may include noise sensitive uses, the Director could then require the preparation of a noise abatement plan. Criteria have been established for the Director to reach such a decision, and an informational hearing must be held to gather testimony on the need for a noise abatement plan.

The Department has resisted incorporating in the rule any language that would limit the scope of the rule at the outset of any noise abatement effort. The rule in its present form would not give the Director the authority to require a noise abatement program for any facility whose Ldn 55 contour did not, or was not likely to, encompass noise sensitive property, but those facilities could be involved in an informal resolution process. The Department feels the ability to include all sizes and types of aircraft facilities within the initial abatement and planning process is an important feature of the proposed rule.

Soundproofing/Interior Criteria

Although soundproofing was initially listed in the proposed rule as only one of several potential noise abatement options, this proposal received a great deal of attention and criticism. In response to requests from the Port of Portland to supply procedures for guidance in applying soundproofing programs, the Department developed detailed criteria and analysis procedures. These procedures in turn received strong criticism, and many persons testified that the rule would be improved by deleting that portion of the procedure manual.

The Department believes the procedure manual presented a reasonable approach to soundproofing, but certainly other techniques may be acceptable. It is probably appropriate for any proprietor interested in developing a soundproofing program to develop that program in whatever fashion he deems reasonable and allow the Commission to weigh its effectiveness and appropriateness. For that reason much of the materials dealing with soundproofing have been deleted from the proposed rule.

Testimony from the Aeronautics Division and from the City of Eugene suggested that an interior criterion might be appropriate instead of, or in addition to, the Ldn 55 outdoor criterion. Certainly a complex procedure could be developed that would identify annoying aircraft levels more accurately than an annual average Ldn 55. The Department believes, however, that an interior criterion, or an additional outdoor criterion, would create far more confusion and complexity than could be justified.

Economic Issues

The Department has received comments that the proposed rule would impose severe economic burden on airport proprietors and others involved in the implementation of an airport noise abatement program. Staff evaluation of testimony and investigation of the economic issue conclude that the costs associated with the proposed rule do not outweigh potential benefits. Evaluation of specific economic issues provides the following comments.

- a) The cost to develop the airport Noise Impact Boundary (Ldn 55) has been estimated to be as high as \$40,000 for one of the smaller air-carrier airports. Staff contacted a local consulting firm requesting an estimate of costs to produce this analysis. It estimated that if all input data to the mathematical model were provided, the boundary could be developed for approximately \$500. If the consultant conducted the analysis without the proprietor's assistance in gathering input data, the cost could be as high as \$10,000.

A Seattle based acoustical consultant was also contacted for an estimate. He assumed that the airport proprietor would provide some limited assistance in developing input data. For a single runway operation with air-carrier operations, the cost of analysis was estimated at \$2400. In the case of an air-carrier airport with cross-wind runway, the cost was estimated at \$5000. If the airport did not have jet operations, costs would be reduced by 33 percent.

- b) The proposed rule could result in an abatement program that would provide soundproofing as a means to achieve acceptable interior noise levels. (It should be noted that soundproofing programs are only referenced in the proposed rule as an appropriate action the plan may include. This mitigation method is not a requirement of the rule, and would only be included if the airport proprietor decides such a program is warranted.) Testimony was provided that indicated soundproofing cost for an average house of 1500 square feet was \$3.00 per square foot for a 5 decibel reduction, or \$0.60 per square foot per decibel. Staff analysis of a study conducted for the City of Los Angeles on a home soundproofing pilot project near LA International Airport showed costs of \$2.10 per square foot for a 10 decibel reduction, or \$0.21 per square foot per decibel.
- c) An economic analysis conducted for the U.S. Department of Transportation determined the effects of airport noise on the market value of residences. This study used data gathered near seven major U.S. airports, including San Francisco, Boston, New Orleans and San Diego. The result of this study indicates that homes located within an Ldn 55 decibel airport contour suffer a market value reduction of 0.5 percent per decibel above the 55 decibel threshold. For the typical used Portland home located at an airport noise contour of 65 decibels, the market value would be \$3500 less than for a similar home not exposed to excessive airport noise.

- d) Those concerned with the potential cost of implementation of this proposed rule may have overlooked the provisions provided in the Oregon Noise Control Act. ORS § 467.060 provides for Commission granted variances to requirements of any rule for reasons including economic impact. This section of the statute is implemented in an adopted rule under OAR 340-35-100, which is included in the proposed rule attachment as reference information.
- e) Staff has not attempted to analyze the economic impact of excessive airport noise on the public's health and welfare. Testimony from those impacted by airport noise complained of the impact of noise on their ability to sleep and communicate. These typical measures of noise impact are acknowledged as indicators of degree of protection, however, there are no technical studies on the costs of these impacts to the public.
- f) A cost that has been ignored by airport proprietors in their testimony is the cost of litigation for suits filed by public impacted by excessive airport noise. As most airports in Oregon are publicly owned, these costs are passed on to the general public. Information on these costs are difficult to obtain as policy for some proprietors is to resolve such suits out-of-court.

Land Use Planning

Even though an airport proprietor may limit noise impacts from the operations at his facility only to a certain extent, it is now clear that he is responsible for the consequences of those impacts. Air Transportation Association v. Crotti 389 F. Supp 58 (N.D. Cal., 1975), National Aviation v. City of Hayward, 418 F. Supp 417 (N.D. Cal., 1976). The Federal Aviation Administration, in its November 18, 1976, Aviation Noise Abatement Policy is cognizant of the burden placed upon proprietors to control noise impacts, and clearly indicates that the proprietor should play an affirmative role in helping to determine appropriate land uses near an airport facility.

The airport proprietor is closest to the noise problem, with the best understanding of both local conditions, needs and desires, and the requirements of the air carriers and others that use his airport.* * * What constitutes appropriate land use control action depends on the proprietor's jurisdiction to control or influence land use. This of course, varies with airport location. Almost all airport proprietors, however, are public agencies with a voice in the affairs and decisions of their respective communities. In some instances they have land use control jurisdiction and are required to document how they will exercise it before receiving federal airport development funds. In other instances, where they lack such direct control, before receiving federal airport development funds they are required to demonstrate that they have used their best efforts to assure proper zoning or the implementation of other appropriate land use controls near the airport and will continue to do so. Although the airport proprietor may not have zoning authority, he is often the local party in the best position to assess the need for it and press the responsible officials into action. (Aviation Noise Abatement Policy, FAA, November 18, 1976, at 50-51.)

The Oregon Department of Transportation Aeronautics Division uses similar language to recognize the lead role of the proprietor in planning for compatible uses around an airport. (Airport Compatibility Planning, ODOT, Aeronautics Division, 1978, at 10.)

Proposed Rule section 35-045 (3)(c)(C), describes what is required in the proprietor's land use and development control plan. Some concern has been expressed that through this element the Department is attempting to shift the traditional responsibility for land use planning from local government to the airport proprietor. Land use planning is the responsibility of local governments, and that role is clearly spelled out on ORS chapter 197. The proposed rule follows the lead of the above cited documents in giving the airport proprietor the responsibility for the initial analysis of the noise impacts from his facility and for implementing those elements of the plan within his control.

Although this proposed rule would have no direct affect on local governments as planning entities, the rule indicates a commitment by the Department to review comprehensive plans with an awareness of Statewide Planning Goal #6 as it applies to this rule.

Federal Preemption

The Federal Aviation Administration has extensive authority to control the use and management of navigable airspace and air traffic. To the extent that FAA has exercised this authority by promulgating regulations, state and local authorities do not have power to regulate.

It is generally agreed by the courts that the scope of FAA preemption presently covers areas where local regulations create an undue burden on interstate commerce, where regulations pose a threat to the safety of the public, and where regulations set maximum single event standards for aircraft. Although a moderate amount of litigation on each of these points has occurred over the past few years, the precise nature of these restrictions on the power of state and local governments to act is still unclear. FAA's policy documents indicate that some kinds of operational controls may not be imposed by an airport proprietor without FAA concurrence, but FAA has declined to set specific policy with respect to some areas, and FAA's position in areas where it has set specific policy has not been universally supported by the courts.

Some concern has been expressed that the proposed rule may place an airport proprietor in a position of having to try to comply with requirements of the FAA and the Department when those requirements are conflicting. To prevent that possibility, the Aeronautics Division has suggested that the Department incorporate wording in the proposed rule that would require an airport proprietor to receive FAA approval on any proposed plan before that plan is brought to the Commission.

The proposed rule requires the proprietor to seek a response from FAA on any portion of a program for which the proprietor believes that a response is necessary. It also requires a proprietor to use good faith efforts to obtain FAA concurrence on any portion of the plan for which he believes that FAA concurrence is necessary for legal implementation. Incorporation of the wording of the rule suggested by Aeronautics would preclude the proprietor from bringing before the Commission any plan or portion of a plan for which FAA has not given

concurrence. The present wording of the rule would help ensure that the Commission would be apprised of FAA's posture on any proposed program at the time it was brought before the Commission for approval. On the other hand, it would not foreclose a proprietor from bringing before the Commission a program that the proprietor believed acceptable, regardless of FAA's posture.

Given the reluctance of FAA to clarify its precise authority on an informal basis, it seems desirable to retain wording in the proposed rule that will present as much information to the Commission as possible, without foreclosing possible noise abatement plan alternatives. If any issue concerning federal preemption arises in the context of a specific plan, the Commission could reach its decision based upon the facts of the specific instance.

Modifications to Proposal Subsequent to Hearings

The proposed rule has been modified subsequent to the public hearings. These amendments reflect information gained during the hearings process and are outlined below:

1. Definitions for various classes of noise sensitive property have been deleted. Staff has deleted the noise sensitive use guidelines for various classes of sensitivity as adequate guidelines have been published by the Oregon Aeronautics Division in its land use compatibility document.
2. The definition for noise sensitive property has been amended to include hospitals as a noise sensitive use (Definition 20).
3. The definition for "sound level reduction" has been deleted as the guidelines for sound insulation have been deleted due to their complexity. Staff believes that any proposed sound insulation program developed within a noise abatement plan need not be burdened by Commission guidelines for a determination of adequate sound insulation. If such programs are developed, the Commission may evaluate each on a case-by-case basis.
4. The Statement of Purpose subsection (1) has been amended in the first paragraph to state that the Commission finds airport noise threatens the public health and welfare rather than finding that airport noise may threaten public health and welfare. The second paragraph has been amended to replace the phrase "shrink noise contours" with "reduce noise impacts" as noise impacts may be reduced without shrinking contours and the reduction of noise impact is the primary goal of the rule. Other minor wording changes have been incorporated to add clarity.
5. Part (a) "New Airport", of subsection (3) has been deleted. The deleted subsection (3)(a), required the development of a noise impact boundary, however, subsection (4)(a) requires the preparation of a noise abatement program, including a noise impact boundary.
6. Parts (3)(b) and (3)(c) have been transposed to improve clarity. Part (3)(b) has been reworded to make clear that the Director's notification is given only after an informal attempt to resolve a problem has failed.

6. A new subsection (3)(d) "Impact Boundary Approval" has been added to ensure that prompt action of the Department will be taken to approve a noise impact boundary analysis.
7. Changes have been made to part (4)(b) to set out standards for the Director to use in making a determination of need for a noise abatement program. The determination may be based upon either projected operational or physical plans or upon anticipated land use of impacted areas.
8. Part (A) of subsection (4)(c) has been amended to reflect comments that this section was poorly organized, difficult to follow, and not complete.
9. Part (C) of subsection (4)(c) has been amended to add clarity to the land use element of the abatement program. Emphasis has been added to ensure the land use plan is to be airport specific and not community-wide. Further clarification was added to reference that the Department intends to review the Comprehensive Land Use Plans of affected jurisdictions to ensure that they have taken appropriate actions in light of the proprietor's land use recommendations and the Commission's adoption of an airport noise abatement program. An additional appropriate land use action was added to the list; item (xi) would allow modifications to the State Uniform Building Code for noise insulation measures within airport noise impact zones.
10. Subsection (5) has been amended to add the airport proprietor and members of the public to those the Director would consult to seek an informal resolution of an airport noise problem.
11. Subsection (6) has been amended to delete the specific noise insulation guidelines for various noise sensitive use classes. As explained above, existing Aeronautics Division guidelines are adequate and any proposed insulation program may be assessed on a case-by-case basis.
12. Old subsection (7) Sound Level Reduction Determination has been deleted as this section is no longer required due to the amendments deleting noise insulation guidelines.
13. New subsection (7) Airport Noise Monitoring, has been amended in order to simplify this requirement but retain a needed verification requirement.
14. The procedure manual has been amended as required by the above rule amendments. Chapters 3 and 4 have been deleted in their entirety.

ALTERNATIVES

Staff has evaluated various alternatives that may be considered amendments to the proposed rule, or alternatives considered by the Department.

1. A great deal of information was presented to the Department showing that past analyses of airport noise has focused on contours of Ldn 60 or Ldn 65. Some additional plan development costs can be expected from requiring an Ldn 55 contour. There seems little question, however, that focusing on the higher contour levels limits any planning or abatement process to the more severe impacts. If the information developed by the analyses mandated under the proposed rule is to be of any real value, it must include considerations at noise levels less than "severe".

Most of the larger airports within the state have already developed airport master plans that include contours to the Ldn 60, and many of the smaller airports would not have an Ldn 60 that extends beyond the confines of the airport. It is the Department's view that the proposed rule would be redundant, and would not yield noise abatement relief sufficient to justify cost of implementation, unless noise analyses extend to the Ldn 55.

2. The proposed rule could impact any Oregon airport, and proprietors of small airports and heliports believe they should be exempted outright from the rule's scope. If the rule were limited to airports in excess of 10,000 annual operations, 43 airports could be impacted by the rule. Although these larger airports in all likelihood would constitute the greater portion of the facilities that generate noise problems, the Department would be powerless to address any kind of noise conflict at one of the smaller, exempt facilities. The Ldn 55 criterion level restricts the scope of the rule to only those airports causing noise impacts, and staff does not believe any further limitation of scope is necessary to protect small airport facilities from unreasonable economic or administrative hardship.
3. Comments were received that indicated that the "airport noise problem", if it really exists, is being adequately resolved by the federal FAA, the Oregon Aeronautics Division and the airport proprietors. Staff has found, through public testimony, that the various agencies controlling and promoting aviation have not been responsive to public complaints of excessive noise. The public believes that the noise issue should be addressed by an agency whose primary goal is to protect the public health, safety and welfare. The Department believes that rulemaking is appropriate to provide mitigation relief and preventative actions toward airport noise impacts.

SUMMATION

Drawing from the background and evaluation presented in this report, the following facts and conclusions are offered:

1. The airport/aircraft noise impacted public is frustrated with the response that federal, state and local government has taken toward its complaints.
2. The claim that aircraft noise is decreasing due to Federal aircraft noise emission controls may not be valid as pending Congressional action would provide open-ended waivers and exemptions to the present schedule.
3. There is no indication that any federal regulation, or other federal action to reduce airport/aircraft noise, is forthcoming.
4. Although many Oregon airports have completed airport master plans, this process does not adequately address noise impacts nor provide meaningful solutions.
5. The proposed rule has the following significant features:
 - a) An informal resolution process for noise problems at an airport or heliport of any size is provided. Airports with minimal operations would not be regulated under the substantive portions of the rule;
 - b) All seven air carrier airports must prepare a noise impact boundary analysis within twelve months of rule adoption. Cost for this development has been estimated between \$500 and \$10,000.
 - c) If unresolved problems exist at any non-air carrier airport, Department staff would prepare the Noise Impact Boundary, with assistance from the proprietor in developing needed information.
 - d) If an impact boundary analysis verifies that a noise problem exists, and if, after a public hearing the need for an abatement program is shown, an airport noise program must be developed for Commission approval within twelve months.
 - e) An abatement program would include projected noise contours, an airport operational plan to reduce noise impacts, and a recommended land use and development plan.
6. The airport proprietor has been legally held responsible for noise impacts to the surrounding community.
7. The airport proprietor is the entity with the knowledge and understanding requisite for developing an operational noise abatement plan.
8. Federal and state guidelines agree that the airport proprietor is best able to develop and recommend a land use and development plan for the area surrounding the airport.
9. An airport noise criteria of an annual average Ldn 55 decibels is consistent with federal and state guidelines and with other Commission standards.
10. Any criteria in excess of Ldn 55 would render the proposed rule useless for for airport noise abatement, noncompatible land use mitigation and preventative development control purposes.

11. Although many small airports will not produce noise levels in excess of the Ldn 55 criteria, the proposed informal resolution procedures warrant the inclusion of all airports within the scope of the rule.
12. Any soundproofing plan proposed in a specific noise abatement program would be evaluated by the Commission on a case-by-case basis for consistency with acceptable guidelines.
13. Soundproofing costs have been estimated at a minimum of \$0.21 to a maximum of \$0.60 per square foot per decibel of reduction. Although these costs may appear to be excessive, such mitigation is optional and should only be proposed in an abatement program when benefits exceed costs and funding mechanisms are identified.
14. The loss to market value of homes exposed to airport noise was estimated at 0.5 percent per decibel above Ldn 55. Typical Portland residences exposed to Ldn 65 would thus have a market value reduction of \$3500 per home.
15. Costs attributed to public health impacts and those resulting from civil nuisance litigation have not been assessed.

DIRECTOR'S RECOMMENDATION

Based on the Summation, it is recommended that the Commission take action as follows:

1. Adopt Attachment A hereto as its final Statement of Need for Rulemaking.
2. Adopt Attachment B hereto as a permanent rule to become effective upon its prompt filing, along with the Statement of Need, with the Secretary of State. Attachment B includes:
 - a) Proposed Amended Definitions, OAR 340-35-015.
 - b) Proposed Noise Control Regulations for Airports, OAR 340-35-045.
 - c) Proposed Airport Noise Control Procedure Manual, NPCS - 37.

Bill

WILLIAM H. YOUNG

John Hector/pw
(503)229-5989
October 4, 1979

Attachments

- Appendix A - Statement of Need for Rulemaking
- Appendix B - Proposed Rules:
 - a) Amendments to Definitions, OAR 340-35-015
 - b) Proposed Noise Control Regulations for Airports, OAR 340-35-045
 - c) Proposed Airport Noise Control Procedure Manual, NPCS - 37
- Appendix C - Hearing Officer's Report

Statement of Need for Rulemaking

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended action to adopt a rule.

(1) Legal Authority

The proposed rule may be promulgated by the EQC under authority granted in ORS 467.030.

(2) Need for the Rule

Airport noise is exempt from existing Commission noise control regulations and testimony indicates public exposure to excessive aircraft noise. This rule would provide a method to evaluate noise exposure and to order an abatement program if deemed necessary.

(3) Principal documents relied upon in the rulemaking include:

- a) Petition for rule amendment submitted by Oregon Environmental Council and others received October 27, 1978.
- b) Summary of Testimony Gathered During Airport Noise Workshops dated May 3, 1979.
- c) Hearing Officer Report for rulemaking hearings held during August, 1979.
- d) Airport-Land Use Compatibility Planning U.S. DOT - FAA, dated 1977.
- e) Airport Compatibility Planning - Recommended Guidelines and Procedures for Airport Land Use Planning and Zoning Oregon DOT - Aeronautics Division, dated 1978.
- f) Aviation Noise Abatement Policy U.S. DOT - FAA dated November 12, 1976.
- g) Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety U.S. EPA, dated March 1974.
- h) Department of Housing and Urban Development, Environmental Criteria and Standards, Title 24, Code of Federal Regulations, Part 51.
- i) Aircraft Noise and the Market for Residential Housing: Empirical Results for Seven Selected Airports U.S. DOT dated September, 1978.
- j) Final Report on the Home Soundproofing Pilot Project for the Los Angeles Department of Airports, Wyle Laboratories Research Staff, dated March 1970.

DEPARTMENT OF ENVIRONMENTAL QUALITY
PROPOSED NOISE CONTROL REGULATIONS FOR AIRPORTS

Appendix B
Agenda Item J
October 19, 1979
EQC Meeting

DIVISION 35

CHAPTER 340, OREGON ADMINISTRATIVE RULES

OCTOBER 19, 1979

Portions of Existing Rules are Presented for
Clarity and Completeness and are so Noted

(Existing Materials)

35-005 POLICY. In the interest of public health and welfare, and in accordance with ORS 467.010, it is declared to be the public policy of the State of Oregon:

(1) to provide a coordinated state-wide program of noise control to protect the health, safety, and welfare of Oregon citizens from the hazards and deterioration of the quality of life imposed by excessive noise emissions;

(2) to facilitate cooperation among units of state and local governments in establishing and supporting noise control programs consistent with the State program and to encourage the enforcement of viable local noise control regulations by the appropriate local jurisdiction;

(3) to develop a program for the control of excessive noise sources which shall be undertaken in a progressive manner, and each of its objectives shall be accomplished by cooperation among all parties concerned.

35-010 EXCEPTIONS. Upon written request from the owner or controller of a noise source, the Department may authorize exceptions as specifically listed in these rules.

In establishing exceptions, the Department shall consider the protection of health, safety, and welfare of Oregon citizens as well as the feasibility and cost of noise abatement; the past, present, and future patterns of land use; the relative timing of land use changes and other legal constraints. For those exceptions which it authorizes, the Department shall specify the times during which the noise rules can be exceeded and the quantity and quality of the noise generated, and when appropriate shall specify the increments of progress of the noise source toward meeting the noise rules.

New Material is Underlined and
Deleted Material is [Bracketed].

35-015 DEFINITIONS. As used in this Division.

(1) "Air Carrier Airport" means any airport that serves air carriers holding Certificates of Public Convenience and Necessity issued by the Civil Aeronautic Board.

(2) "Airport Master Plan" means any long-term development plan for the airport established by the airport proprietor.

(3) "Airport Noise Abatement Program" means a Commission-approved program designed to achieve noise compatibility between an airport and its environs.

(4) "Airport Proprietor" means the person who holds title to an airport.

[(1)] (5) "Ambient Noise" means the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far.

(6) "Annual Average Day-Night Airport Noise Level" means the average, on an energy basis, of the daily Day-Night Airport Noise Level of a 12-month period.

[(2)] (7) "Any one hour" means any period of 60 consecutive minutes during the 24-hour day.

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

[(4)] (9) "Construction" shall mean building or demolition work and shall include all activities thereto such as clearing of land, earthmoving, and landscaping, but shall not include the production of construction materials.

(10) "Day-Night Airport Noise Level (Ldn)" means the Equivalent Noise Level produced by airport/aircraft operations during a 24-hour time period, with a 10 decibel penalty applied to the level measured during the nighttime hours of 10 pm to 7 am.

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

[(6)] (12) "Director" means the Director of the Department.

[(7)] (13) "Emergency Equipment" means noise emitting devices required to avoid or reduce the severity of accidents. Such equipment includes, but is not limited to, safety valves and other pressure relief devices.

(14) "Equivalent Noise Level (Leq)" means the equivalent steady state sound level in A-weighted decibels for a stated period of time which contains the same acoustic energy as the actual time-varying sound level for the same period of time.

[(8)] (15) "Existing Industrial or Commercial Noise Source" means any Industrial or Commercial Noise Source for which installation or construction was commenced prior to January 1, 1975.

[(9)] (16) "Farm Tractor" means any Motor Vehicle designed primarily for use in agricultural operations for drawing or operating plows, mowing machines, or other implements of husbandry.

[(10)] (17) "Impulse Sound" means either a single pressure peak or a single burst (multiple pressure peaks) for a duration of less than one second as measured on a peak unweighted sound pressure measuring instrument.

[(11)] (18) "In-Use Motor Vehicle" means any Motor Vehicle which is not a New Motor Vehicle.

[(12)] (19) "Industrial or Commercial Noise Source" means that source of noise which generates Industrial or Commercial Noise Levels.

[(13)] (20) "Industrial or Commercial Noise Levels" means those noises generated by a combination of equipment, facilities, operations, or activities employed in the production, storage, handling, sale, purchase, exchange, or maintenance of a product, commodity, or service and those noise levels generated in the storage or disposal of waste products.

[(14)] (21) "Motorcycle" means any Motor Vehicle, except Farm Tractors, designed to travel on not more than three wheels which are in contact with the ground.

[(15)] (22) "Motor Vehicle" means any vehicle which is, or is designed to be self-propelled or is designed or used for transporting persons or property. This definition excludes airplanes, but includes water craft.

(23) "New Airport" means any airport for which installation, construction, or expansion of a runway commenced after January 1, 1980.

[(16)] (24) "New Industrial or Commercial Noise Source" means any Industrial or Commercial Noise Source for which installation or construction was commenced after January 1, 1975 on a site not previously occupied by the industrial or commercial noise source in question.

[(17)] (25) "New Motor Vehicle" means a Motor Vehicle whose equitable or legal title has never been transferred to a Person who in good faith purchases the New Motor Vehicle for purposes other than resale. The model year of such vehicle shall be the year so specified by the manufacturer, or if not so specified, the calendar year in which the new motor vehicle was manufactured.

(26) "Noise Impact Boundary" means a contour around the airport, any point on which is equal to the airport noise criterion.

[(18)] (27) "Noise Level" means weighted Sound Pressure Level measured by use of a metering characteristic with an "A" frequency weighting network and reported as dBA.

[(19)] (28) "Noise Sensitive Property" means real property [on, or in, which people normally sleep, or on which exist facilities] normally used for sleeping, or normally used [by people] as schools, churches, hospitals or public libraries. Property used in industrial or agricultural activities is not [defined to be] Noise Sensitive Property unless it meets the above criteria in more than an incidental manner.

[(20)] (29) "Octave Band Sound Pressure Level" means the sound pressure level for the sound being measured within the specified octave band. The reference pressure is 20 micropascals (20 micronewtons per square meter).

[(21)] (30) "Off-Road Recreational Vehicle" means any Motor Vehicle, including water craft, used off Public Roads for recreational purposes. When a Road Vehicle is operated off-road, the vehicle shall be considered an Off-Road Recreational Vehicle if it is being operated for recreational purposes.

[(22)] (31) "One-Third Octave Band Sound Pressure Level" means the sound pressure level for the sound being measured within the specified one-third octave band at the Preferred Frequencies. The reference pressure is 20 micropascals (20 micronewtons per square meter).

[(23)] (32) "Person" means the United States Government and agencies thereof, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity whatever.

[(24)] (33) "Preferred Frequencies" means those mean frequencies in Hertz preferred for acoustical measurements which for this purpose shall consist of the following set of values: 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10,000, 12,500.

[(25)] (34) "Previously Unused Industrial or Commercial Site" means property which has not been used by any industrial or commercial noise source during the 20 years immediately preceding commencement of construction of a new industrial or commercial source on that property. Agricultural activities and silvicultural activities of an incidental nature shall not be considered as industrial or commercial operations for the purposes of this definition.

[(26)] (35) "Propulsion Noise" means that noise created in the propulsion of a Motor Vehicle. This includes, but is not limited to, exhaust system noise, induction system noise, tire noise, cooling system noise, aerodynamic noise and, where appropriate in the test procedure, braking system noise. This does not include noise created by Road Vehicle Auxiliary Equipment such as power take-offs and compressors.

[(27)] (36) "Public Roads" means any street, alley, road, highway, freeway, thoroughfare, or section thereof in this state used by the public or dedicated or appropriated to public use.

[(28)] (37) "Quiet Area" means any land or facility designated by the Commission as an appropriate area where the qualities of serenity, tranquility, and quiet are of extraordinary significance and serve an important public need, such as, without being limited to, a wilderness area, national park, state park, game reserve, wildlife breeding area or amphitheater. The Department shall submit areas suggested by the

public as Quiet Areas, to the Commission, with the Department's recommendation.

[(29)] (38) "Racing Events" means any competition using Motor Vehicles, conducted under a permit issued by the governmental authority having jurisdiction, or, if such permit is not required, under the auspices of a recognized sanctioning body. This definition includes, but is not limited to, events on the surface of land and water.

[(30)] (39) "Racing Vehicle" means any Motor Vehicle that is designed to be used exclusively in Racing Events.

[(31)] (40) "Road Vehicle" means any Motor Vehicle registered for use on Public Roads, including any attached trailing vehicles.

[(32)] (41) "Road Vehicle Auxiliary Equipment" means those mechanical devices which are built in or attached to a Road Vehicle and are used primarily for the handling or storage of products in that Motor Vehicle. This includes, but is not limited to, refrigeration units, compressors, compactors, chippers, power lifts, mixers, pumps, blowers, and other mechanical devices.

[(33)] (42) "Sound Pressure Level" (SPL) means 20 times the logarithm to the base 10 of the ratio of the root-mean-square pressure of the sound to the reference pressure. SPL is given in decibels (dB). The reference pressure is 20 micropascals (20 micronewtons per square meter).

[(34)] (43) "Statistical Noise Level" means the Noise Level which is equalled or exceeded a stated percentage of the time. An $L_{10} = 65$ dBA implies that in any hour of the day 65 dBA can be equalled or exceeded only 10% of the time, or for 6 minutes.

[(35)] (44) "Warning Device" means any device which signals an unsafe or potentially dangerous situation.

All New Material

35-045 NOISE CONTROL REGULATIONS FOR AIRPORTS.

(1) Statement of Purpose. The Commission finds that noise pollution caused by Oregon airports threatens the public health and welfare of citizens residing in the vicinity of airports. To mitigate airport noise impacts a coordinated statewide program is desirable to ensure that effective Airport Noise Abatement Programs are developed and implemented where needed. An abatement program includes measures to prevent the creation of new noise impacts or the expansion of existing noise impacts to the extent necessary and practicable. Each abatement program will primarily focus on airport operational measures to prevent increased, and to lessen existing, noise levels. The program will also analyze the effects of aircraft noise emission regulations and land use controls.

The principal goal of an airport proprietor who may be required to develop an Airport Noise Abatement Program under this rule should be to reduce noise impacts caused by aircraft operations, and to address in an appropriate manner the conflicts which occur within the higher noise contours.

The Airport Noise Criterion is established to define a perimeter for study and for noise sensitive use planning purposes. It is recognized that some or many means of addressing aircraft/airport noise at the Airport Noise Criterion Level may be beyond the control of the airport proprietor. It is therefore necessary that abatement programs be developed with the cooperation of federal, state and local governments to ensure that all potential noise abatement measures are fully evaluated.

This rule is designed to cause the airport proprietor, aircraft operator, and government at all levels to cooperate to prevent and diminish noise and its impacts. These ends may be accomplished by encouraging compatible land uses and controlling and reducing the airport/aircraft noise impacts on communities in the vicinity of airports to acceptable levels.

(2) Airport Noise Criterion. The criterion for airport noise is an Annual Average Day-Night Airport Noise Level of 55 dBA. The Airport Noise Criterion is not designed to be a standard for imposing liability or any other legal obligation except as specifically designated within this Section.

(3) Airport Noise Impact Boundary.

(a) Existing Air Carrier Airports. Within twelve months of the adoption of this rule, the proprietor of any existing Air Carrier Airport shall submit for Department approval, the airport Noise Impact Boundary.

(b) Existing Non-Air Carrier Airports. After an unsuccessful effort to resolve a noise problem pursuant to Section (5), the Director may require the proprietor of any existing non-air carrier airport to submit for Department approval, all information reasonably necessary for the calculation of the airport Noise Impact Boundary. This information is specified in the Department's Airport Noise Control Procedure Manual (NPCS-37), as approved by the Commission. The proprietor shall submit the required information within twelve months of receipt of the Director's written notification.

(c) Airport Master Planning. Any airport proprietor who obtains funding to develop an Airport Master Plan shall analyze the noise impact of the airport using the Airport Noise Criterion and shall submit the analysis for Department approval.

(d) Impact Boundary Approval. Within 60 days of the receipt of a completed airport noise impact boundary, the Department shall either consider the boundary approved or provide written notification to the airport proprietor of deficiencies in the analysis.

(4) Airport Noise Abatement Program and Methodology.

(a) New Airports. The proprietor of any New Airport shall, prior to construction or operation, submit a proposed Airport Noise Abatement Program for Commission approval.

(b) Existing Airports. The proprietor of an existing airport whose airport Noise Impact Boundary includes Noise Sensitive Property, or may include Noise Sensitive Property, shall submit a proposed Airport Noise Abatement Program for Commission approval within 12 months of notification, in writing, by the Director. The Director shall give such notification when he has reasonable cause to believe that an abatement program is necessary to protect the health, safety or welfare of the public following a public informational hearing on the question of such necessity. Reasonable cause shall be based upon a determination that: 1) Present or planned airport operations cause or may cause noise impacts that interfere with noise sensitive use activities such as communication and sleep to the extent that the public health, safety or welfare is threatened; and 2) These noise impacts will occur on property presently used for noise sensitive purposes, or where noise sensitive use is permitted by zone or comprehensive plan.

(c) Program Elements. An Airport Noise Abatement Program shall consist of all of the following elements, but if it is determined by the Department that any element will not aid the development of the program, it may be excluded.

(A) Maps of the airport and its environs, and supplemental information, providing:

(i) Projected airport noise contours from the Noise Impact Boundary to the airport property line in 5 dBA increments under current year of operations and at periods of five, ten, and twenty years into the future with proposed operational noise control measures designated in subsection (4)(c)(B);

(ii) All existing Noise Sensitive Property within the airport Noise Impact Boundary;

(iii) Present zoning and comprehensive land use plan permitted uses and related policies;

(iv) Physical layout of the airport including the size and location of the runways, taxiways, maintenance and parking areas;

(v) Location of present and proposed future flight tracks;

(vi) Number of aircraft flight operations used in the calculation of the airport noise levels. This information shall be characterized by flight track, aircraft type, flight operation, number of daytime and nighttime operations, and takeoff weight of commercial jet transports.

(B) An airport operational plan designed to reduce airport noise impacts at Noise Sensitive Property to the Airport Noise Criterion to the greatest extent practicable. The plan shall include an evaluation of the appropriateness and effectiveness of the following noise abatement operations by estimating potential reductions in the airport Noise Impact Boundary and numbers of Noise Sensitive

Properties impacted within the boundary, incorporating such options to the fullest extent practicable into any proposed Airport Noise Abatement Program:

- (i) Takeoff and landing noise abatement procedures such as thrust reduction or maximum climb on takeoff;
- (ii) Preferential and priority runway use systems;
- (iii) Modification in approach and departure flight tracks;
- (iv) Rotational runway use systems;
- (v) Higher glide slope angles and glide slope intercept altitudes on approach;
- (vi) Dispaced runway thresholds;
- (vii) Limitations on the operation of a particular type or class of aircraft, based upon aircraft noise emission characteristics;
- (viii) Limitations on operations at certain hours of the day;
- (ix) Limitations on the number of operations per day or year;
- (x) Establishment of landing fees based on aircraft noise emission characteristics or time of day;
- (xi) Rescheduling of operations by aircraft type or time of day;
- (xii) Shifting operations to neighboring airports;

(xiii) Location of engine run-up areas;

(xiv) Times when engine run-up for maintenance can be done;

(xv) Acquisition of noise suppressing equipment and construction of physical barriers for the purpose of reducing aircraft noise impact;

(xvi) Development of new runways or extended runways that would shift noise away from populated areas or reduce the noise impact within the Airport Noise Impact Boundary.

(C) A proposed land use and development control plan, and evidence of good faith efforts by the proprietor to obtain its approval, to protect the area within the airport Noise Impact Boundary from encroachment by non-compatible noise sensitive uses and to resolve conflicts with existing unprotected noise sensitive uses within the boundary. The Plan is not intended to be a community-wide comprehensive plan; it should be airport-specific, and should be of a scope appropriate to the size of the airport facility and the nature of the land uses in the immediate area. Affected local governments shall have an opportunity to participate in the development of the plan, and any written comments offered by an affected local government shall be made available to the Commission. The Department shall review the comprehensive land use plan of the affected local governments to ensure that reasonable policies have been adopted recognizing the local government's responsibility to support the proprietor's efforts to protect the public from excessive airport noise. Appropriate actions under the plan may include:

(i) Changes in land use through non-noise sensitive zoning and revision of comprehensive plans, where appropriate;

(ii) Influencing land use through the programming of public improvement projects;

- (iii) Purchase assurance programs;
- (iv) Voluntary relocation programs;
- (v) Soundproofing programs;
- (vi) Purchase of land for airport use;
- (vii) Purchase of land for airport related uses;
- (viii) Purchase of land for non-noise sensitive public use;
- (ix) Purchase of land for resale for airport noise compatible purposes;
- (x) Noise impact disclosure to purchaser.
- (xi) Modifications to Uniform State Building Code for areas of airport noise impact.

(d) Federal Aviation Administration Concurrence. The proprietor shall use good faith efforts to obtain concurrence or approval for any portions of the proposed Airport Noise Abatement Program for which the airport proprietor believes that Federal Aviation Administration concurrence or approval is required. Documentation of each such effort and a written statement from FAA containing its response shall be made available to the Commission.

(e) Program Renewal. No later than six (6) months prior to the end of a five year period following the Commission's approval, each current airport Noise Abatement Program shall be reviewed and revised by the proprietor, as necessary, and submitted to the Commission for consideration for renewal.

(f) Program Revisions. If the Director determines that circumstances warrant a program revision prior to the scheduled five (5) year review, the Airport Proprietor shall submit to the Commission a revised program within twelve (12) months of written notification by the Director. The Director shall make such determination based upon an expansion of airport capacity, increase in use, or change in the types or mix of various aircraft utilizing the airport. Any program revision is subject to all requirements of this rule.

(5) Consultation. The Director shall consult with the airport proprietor, members of the public, the Oregon departments of Transportation, Land Conservation and Development and any affected local government in an effort to resolve informally a noise problem prior to issuing a notification under Subsection (3)(b), (4)(b) and (4)(f) of this section.

(6) Noise Sensitive Use Deviations. The airport noise criterion is designed to provide adequate protection of noise sensitive uses based upon out-of-doors airport noise levels. Certain noise sensitive use classes may be acceptable within the airport Noise Impact Boundary if all measures necessary to protect interior activities are taken.

(7) Airport Noise Monitoring. Every mathematical model used to calculate a noise contour or Noise Impact Boundary shall be verified by field measurements.

(8) Exceptions. Upon written request from the Airport Proprietor the Department may authorize exceptions to this Section, pursuant to rule 340-35-010, for:

- (a) unusual or infrequent events;
- (b) noise sensitive property owned or controlled by the airport;
- (c) noise sensitive property located on land zoned exclusively for industrial or commercial use.

(Existing Materials)

35-100 VARIANCES.

(1) Conditions for Granting. The Commission may grant specific variances from the particular requirements of any rule, regulation, or order to such specific persons or class of persons or such specific noise source upon such conditions as it may deem necessary to protect the public health and welfare, if it finds that strict compliance with such rule, regulation, or order is inappropriate because of conditions beyond the control of the persons granted such variance or because of special circumstances which would render strict compliance unreasonable or impractical due to special physical conditions or cause, or because strict compliance would result in substantial curtailment or closing down of a business, plant, or operation, or because no other alternative facility or method of handling is yet available. Such variances may be limited in time.

(2) Procedure for Requesting. Any person requesting a variance shall make his request in writing to the Department for consideration by the Commission and shall state in a concise manner the facts to show cause why such variance should be granted.

(3) Revocation or Modification. A variance granted may be revoked or modified by the Commission after a public hearing held upon not less than 20 days notice. Such notice shall be served upon the holder of the variance by certified mail and all persons who have filed with the Commission a written request for such notification.



AIRPORT
NOISE CONTROL
PROCEDURE
MANUAL

PROPOSED
JULY 1979

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CHAPTER 1

INTRODUCTION

1.1 Policy

1.1.1 This manual contains the procedural information required for compliance with OAR 340-35-045, Noise Control Regulations for Airports.

1.1.2 Chapter 2 describes the information required by the Department for calculating a Noise Impact Boundary for non air carrier airports. The chapter identifies the amount and nature of information that will normally be needed by the Department for making accurate calculations. In unusual circumstances additional information may be required. It is the Department's policy to perform the Noise Impact Boundary calculations to avoid placing an onerous burden upon smaller airport facilities or proprietors, and any additional information will be requested with cognizance of this policy.

1.2 Authority

1.2.1 This procedure manual is to be used pursuant to ORS chapter 467 and OAR 340-35-045.

CHAPTER 2

AIRPORT NOISE CONTOURS

- 2.1 Scope. This Chapter describes the information needed by the Department for calculating an airport noise impact boundary pursuant to OAR 340-35-045(4)(b). The Chapter applies to general aviation airports that have the following characteristics:
1. Primarily used by small single and twin engine propeller aircraft;
 2. May have small numbers of business jets using the airport;
 3. May have occasional large propeller or jet aircraft operating at the airport;
 4. No helicopter or military aircraft activity.
- 2.1.1 For complex airport situations that differ from the above description, it may be necessary to use alternate programs to predict airport noise levels. The information needed for these programs may be in addition to the information discussed in this Chapter.
- 2.2 Definition of Terms.
- 2.2.1 Day Time Hours - 7 am to 10 pm local time.
- 2.2.2 Flight Operation - A takeoff or landing.
- 2.2.3 Flight Track - An aircraft flight pattern projected onto the ground. A runway may have one or more flight tracks which may vary with the type of aircraft.
- 2.2.4 Night Time Hours - 10 pm to 7 am local time.
- 2.2.5 Runway Landing Threshold - The first point on the runway available or suitable for landings. For most runways the landing threshold coincides with the physical beginning of the runway.
- 2.2.6 Start of Takeoff Roll - The point on the runway from which an aircraft starts its departure down the runway for takeoff, sometimes called the brake release point.
- 2.3 Maps. Airport maps containing the following information are needed:
- 2.3.1 The physical layout of the airport including the lengths of the runways and location of taxi-ways, maintenance and parking areas. Maps should be accurately scaled.

- 2.3.2 The location of all Start of Take Off Roll points and Runway Landing Thresholds.
- 2.3.3 Terrain contours for all major features (i.e., mountains, hills, canyons) within 1 mile radius of ends of runways.
- 2.3.4 Location of all flight tracks.
- 2.3.5 Location and type of all noise sensitive properties within 1 mile radius of ends of runways.
- 2.3.6 Location and type of land use zones within 1 mile radius of ends of runways.
- 2.4 Flight Operational Data. The number of flight operations averaged on a yearly basis shall be provided, broken down by the following characteristics:
 - 2.4.1 Flight track;
 - 2.4.2 Aircraft type;
 - 2.4.3 Type of flight operation;
 - 2.4.4 The average number of daytime operations per day;
 - 2.4.5 The average number of nighttime operations per day.
- 2.5 Special Information. Depending on the complexity of the airport, additional special information may be needed, such as:
 - 2.5.1 For take off of large commercial jet transports, the average distance to next aircraft fuel stop (this will relate to take off weight);
 - 2.5.2 Description of special take off or landing procedures;
 - 2.5.3 The ratio of turbo jet to turbo fan business jets.
- 2.6 Sources of Information. The following sources of information may help in locating the needed airport data:
 - 2.6.1 Maps:
 - a. FAA Form 5010 or replacement "FAA Airport Master Record".
 - b. Instrument approach procedures published by National Ocean Survey C 44, Riverdale, MD 20840, and by Jeppesen and Company, 3025 E. 40th Ave., Denver, Colorado 80207.
 - c. U.S. Coast and Geodetic Survey Maps.

2.6.2 Flight Tracks (For the typical light aircraft flight pattern see the FAA model.)

2.6.3. Aircraft Operations:

- a. FAA tower records;
- b. "Official Airline Guide" published by Reubin H. Donnelly Corp., 2000 Clearwater Drive, Oak Brook, Illinois 60521.



Environmental Quality Commission

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

To: Environmental Quality Commission
From: Hearing Officer
Subject: Hearing Report: Hearings Regarding Proposed Adoption of Noise Control Regulations for Airports.

Background

OR. REV. STAT. 467.030 authorizes the Environmental Quality Commission to promulgate regulations to control aircraft noise, but some sounds generated by aircraft operations are exempt from existing Commission regulations (OAR 340-35-035(j)).

At its meeting of May 25, 1979, the Commission authorized the Department to hold public hearings on a proposed rule that would increase the scope of the Department's regulations. Hearings were held at the following times and locations:

Bend	August 7	7 pm
Eugene	August 9	7 pm
Portland	August 16	7 pm

The record for these hearings was held open until September 1. Testimony received at the hearings, and written testimony submitted before that date is summarized below. Written testimony submitted subsequent to September 1 is attached.

Summary of Testimony

General comments subscribed to by several persons are set out in paragraph form below.

1. The various elements of the rule are to be applied when the Director has reasonable cause to believe that the elements are necessary to protect the public health, safety and welfare. Standards need to be set, and guidelines for the Director to use in applying the standards need to be determined.

Edward Rhodes (Pendleton Planning and Public Works Director)
Clifford Hudsick (The Port of Portland)
Michael M. Randolph (for the Corvallis Airport Commission)
John O'Brien (Manager, Sunriver Airport)
Ronald Patton (Menasha Corp.)



2. The Federal Aviation Administration and the Oregon Aeronautics Administration have guidelines for aircraft noise that are adequate. Present programs under their auspices, including masterplan development for many airports, make the proposed rule redundant. DEQ should not intervene in an area already heavily regulated.

Michael M. Randolph (Corvallis Airport Commission)
James T. Lussier (St. Charles Medical Center)
Thomas Benedict (Willamette Seaplane Base)
Ronald Patton (Menasha Corp.)
Doug Rosenberg (Port of Tillamook Bay)
Jerry Dilling (Flightcraft)
John S. Yodice (Aircraft Owners and Pilots Assn., Washington Counsel)
R. W. Shelby (Oregon Airport Managers Assn.)
John O'Brien (Manager, Sunriver Airport)

3. The Ldn 55 criterion of the proposed rule is too low; Ldn 65 would be more appropriate and would be more consistent with already completed planning efforts.

Michael Randolph (Corvallis Airport Commission)
John S. Yodice (AOPA, Washington Counsel)
Paul Burket (Administrator, Aeronautics Division, ODOT)
C. Gilbert Sperry (Oregon Pilots Assn. & Corvallis Airport Commission)

4. Smaller airport facilities are already aware of noise problems and are addressing the problems in a responsible manner. Noise from these facilities is a local problem and should be handled at the local level. The proposed rule does not distinguish between sizes of airports, and excessive regulation already places a significant economic burden on small facilities. The real noise problem is at Portland International Airport, and perhaps a few other large facilities.

Doug Rosenberg (Port of Tillamook Bay)
Donald R. and Jeanette Gabbert
Jerry Dilling (Flightcraft)
John S. Yodice (AOPA Washington Counsel)
James T. Lussier (St. Charles Medical Center)
H. E. Hollowell, Jr. (Willamette Falls Community Hospital)
Umatilla County Board of Commissioners
John O'Brien (Manager, Sunriver Airport)
Thomas Benedict (Willamette Seaplane Base)
Rod Stevens (Ashland Airport Commission)
R. W. Shelby (Oregon Airport Managers Assn.)
C. Gilbert Sperry (Oregon Pilots Assn. & Corvallis Airport Comm.)
Terry Connell (Manager, North Bend Municipal Airport)
Ronald Patton (Menasha Corp.)

5. Land use planning requirements for airport proprietors as described in the proposed rule are inappropriate. This activity should be left within the province of local governments.

Clifford Hudsick (The Port of Portland)
C. Gilbert Sperry (Oregon Pilots Assn. & Corvallis Airport Comm.)
Paul Burket (Administrator, Aeronautics Division, ODOT)

6. The proposed rule shows no cognizance of the economic issues that it raises and has not been accompanied by any cost/benefit analysis. The rule does not determine who has responsibility for paying the costs of the various proposed mitigation measures.

Clifford Hudsick (The Port of Portland)
Paul Burket (Administrator, Aeronautics Division, ODOT)
John O'Brien (Manager, Sunriver Airport)
Rod Stevens (Ashland Airport Commission)
R. W. Shelby (OAMA)

7. Mitigation measures proposed by the rule fall within the scope of the Federal Aviation Administration's preemptive regulatory authority. DEQ may find its rule legally invalid or the airport proprietors may be placed between two agencies with conflicting requirements.

Clifford Hudsick (The Port of Portland)
Paul Burket (Administrator, Aeronautics Division, ODOT)
C. Gilbert Sperry (OPA and Corvallis Airport Comm.)
John O'Brien (Manager, Sunriver Airport)
Thomas Benedict (Willamette Seaplane Base)

8. The Department stated in its staff report of May 25, 1979 that the procedure manual for the proposed rule would be available 30 days before public hearings on the rule. The procedure manual was distributed 2-3 weeks before the first scheduled hearing, and the complexity of the procedure manual does not allow adequate review in that time.

Paul Burket (Administrator, Aeronautics Division, ODOT)
Rod Stevens (Ashland Airport Comm.)
John O'Brien (Manager, Sunriver Airport)

9. The soundproofing guidelines are unclear, too complex, or inconsistent with existing guidelines. Soundproofing generally will not solve the noise problem [This viewpoint was offered by those who supported and those who opposed the proposed rule].

Ray Simonson (Home Builders Assn. of Metro Portland, and Oregon
State Home Builders Assn.)
Clifford Hudsick (The Port of Portland)
Paul Burket (Administrator, Aeronautics Division, ODOT)
Jean Baker (Oregon Environmental Council)
Tim Farley, Redland
Annette Farmer, Portland

10. The proposed rule includes options that are unsafe operational practices, or that allow the pilot no margin of error.

Ronald Patton (Menasha Corp.)
Clifford Chaney (Chairman, Ashland Airport Comm.)

11. Noise impacts caused by aircraft significantly deteriorate the living environment of citizens and result in various kinds of effects, including awakening, speech interference, and interference with leisure activities, such as listening to television.

Gary Gregory, Portland
Jean Baker, Oregon Environmental Council
Lorna VanderZanden, Hillsboro
Mrs. Agnes Pratt, Portland
D. R. Mandich, Portland
Bruce Roberts (Argay Downs Homeowners Assoc.)
Richard Paul, Portland
Mrs. C. R. Hackworth, Portland
Dorothy C. Hensel, Portland
Mr. and Mrs. Craig Bodenhausen, Sunriver
Cecil A. Hall, Portland
Opal Payne, Portland
Elizabeth Moss, Portland
Lorene LaFave, Portland
Lenore F. Prior, Sherwood

12. The flight paths of PIA flights have changed in recent years to cause an increased noise problem. If overflights occurred at the locations the flight tracks indicate, the problem would be lessened.

Bruce Roberts (Argay Downs Homeowners Assoc.)
Richard Paul, Portland
Cecil A. Hall, Portland
Dorothy C. Hensel, Portland

13. Agencies contacted concerning noise problems from aircraft have been unresponsive.

Bruce Roberts (Argay Downs Homeowners Assoc.)
Mrs. C. R. Hackworth, Portland
Cecil A. Hall, Portland
Dorothy C. Hensel, Portland

Other comments received are set out below:

Edward Rhodes (Director, Planning and Building, City of Pendleton) It will cost the City of Pendleton between \$25,000 and \$40,000 to do an Ldn 55 boundary. If DEQ has the expertise to develop a boundary for non-air carrier airports, that service should be made available to air carrier airports as well. The City of Pendleton would consider the rule acceptable if:

1. There were grant funds for boundaries.
2. The requirement for boundary submittal were extended to 24 months.
3. The exceptions listed under section 35-015 are considered independent.
4. Agricultural/industrial land surrounding an airport is granted an exception from the requirements of the rule.

Clifford Hudsick (The Port of Portland) The rule does not prevent encroachment of noise sensitive uses onto noise impacted property, yet makes the proprietor responsible for developing abatement techniques.

Paul Burket (Aeronautics Division, ODOT) The rule contains drafting flaws, including problems with clarity, redundancy, inconsistency and extraneous information.

Ronald Patton (Menasha Corp.) The Department chose to ignore the results of the previous hearings and is wasting taxpayers money. This seems to be a power play by DEQ to get more control. DEQ's track record for consistency and fairness has been extremely poor. The agency is interested in self-promotion, not the good of the people.

C. Gilbert Sperry (Oregon Pilots Assn.) [The proposed rule hasn't] changed since the last hearing. The problem that the rule tries to address doesn't exist.

R. W. Shelby (OAMA) OAMA would like groups to work together where problems exist. LCDC should ensure that proprietors get the protection they deserve from encroaching uses. Land banking should be revised and building codes should require soundproofing of new construction near airports. Those who reside near airports should share in the costs of solving noise problems. Wants staff response to some of the major issues raised at the hearings. (Preemption, cost of abatement, soundproofing feasibility, administration of the rule.)

Rod Stevens (Ashland Airport Comm.) Testimony at the earlier hearings was overwhelmingly against the rule, yet the Director put the rule forward without significant modifications. The Director's ability to make a reasonable determination is highly questionable. The existence of a problem should be determined on the basis of fact, not complaints. The DEQ should sustain the burden of proof for the need of this regulation.

Thomas Benedict (Willamette Seaplane Base) Objects to the apparent lack of aviation expertise in the rules.

John O'Brien (Sunriver Airport) The procedure manual should have had the input of an aviation expert. Was the procedure manual adopted from highway standards? The U.S. District Court in California indicated the Santa Monica jet ban was unconstitutional. DEQ could be facing the same problem.

Terry Connell (North Bend Municipal Airport) Past testimony has had no effect. Feels like he is talking to a wall. The airport managers would like to be part of the community and work to help solve a noise problem and this approach doesn't allow that.

Clifford Chaney (Chairman, Ashland Airport Comm.) Has been familiar with noise abatement procedures since their inception, and many are unsafe. No one without expertise can say that a change in aircraft pattern is within the capabilities of the aircraft.

Jerry Dilling (Flightcraft) There has been little demonstrated need for the rule; complaints will always accompany aircraft operations. The military operations are outside the scope of the rules. Airports are vital to Oregon commerce and the proposed rule would inhibit that commerce.

Michael Randolph (Corvallis Airport Commission) Regulation at airports where there is no problem may result in a self-fulfilling prophesy that a problem is perceived when it did not exist before.

Rodney A. Aho (East Central Oregon Association of Counties - Transportation Committee) The Committee's primary concern is development of land use controls which would avoid land use conflicts. Also concerned that agricultural practices, such as crop dusting, may be curtailed. The Committee would support a rule that addresses problems after they exist.

John Brown (Ellingson Lumber) If the rules require expense to airport proprietors, the Company will be forced to deny the public use of the two airports it now owns serving Unity and Halfway.

Gary Gregory, Portland. The criteria of the Port of Portland's Masterplan are not quite being used. The Aeronautics Division and the Port deny having the authority to resolve the problem; DEQ deserves a chance to try. The proposed rule gives immediate relief to Portland and preventative relief for other airports.

Jean Baker (Oregon Environmental Council) The advisory voice of DEQ is insufficient to achieve the noise reduction goal. It should be made clear that the procedure manual refers to all airports and the exemption clause should be deleted. Provisions that allow delays and elimination of the regulations with political pressure should be deleted. Standards for abatement options should be added.

Deborah Yamamoto (U.S. Environmental Protection Agency) The proposed rule is similar to EPA's proposed rule. The rule is necessary because there is no history of voluntary reduction of noise by airport proprietors or success in noise control by federal agencies. Small airports also have problems that do not get addressed. The rule should provide for more public participation.

Annette Farmer, Portland. Disappointed that the first people to speak at the Portland public hearing were opposed to the rule. They got all the media coverage, and people watching the news programs will think no one is in favor of the rule. Many thousands of people in Oregon are affected by airport noise.

Cecil A. Hall, Portland. Noise reduction is a lower priority to FAA than reduction of fuel consumption.

David R. Seigneur (Director, Planning Division, Clackamas County) Specific provisions ensuring that local governments are adequately notified early on in any abatement process are needed. Interior noise levels criteria should assume open windows.

Richard Daniels (Multnomah County Planning Division) The responsibility given the proprietor in the proposed rule is appropriate. The rule should include provisions suggesting amendments to the Uniform Building Code that would alter soundproofing specifications.

Tim Farley, Redland. Jets at commercial facilities should be able to stay right on the flight tracks.

Hugh Parry of the Parry Company (representing the Port of Portland) The procedure manual dealing with soundproofing is not applicable to existing structures because much of the information required for calculations cannot be obtained. The calculations assume ideal absorption and other improper conditions.

Lorna VanderZanden, Hillsboro. Some suggestions for minimizing noise at Hillsboro include:

1. Eliminating military craft training flights at the facility.
2. No training instrument approaches should be allowed at night.
3. Aircraft should be required to take off from the end of the runway to keep as much noise as possible on the airport property.
4. Nighttime flights could be limited to single engine craft, or there could be a nighttime curfew.
5. Takeoffs should be fanned out so that the noise exposure is not borne by one area near the airport.

Terry Smith, Environmental Analyst, City of Eugene. A coordinated effort is needed to safeguard the public from excessive airport noise, but the rule does not meet that need. The rule should use a two-level approach, such as a primary standard of 65 Ldn to be attained at all noise sensitive property as rapidly as possible. A secondary level of Ldn 55 should be attained, if at all, after further research has shown a need.

An objective procedure for identification is needed, such as a non-attainment designation for airports with noise sensitive property exposed to projected Ldn 65 for years 1990 or 2000. This time differential would allow for adequate planning.

A body representing all facets of government and interested parties should be brought together by this process to develop the most cost-effective abatement strategy. This strategy would be presented for review, public hearings, and final approval by the Commission.

Cassette tape recordings of the hearings and all written testimony received prior to September 1 are available to the Commission. Written testimony submitted subsequent to September 1 and not summarized above is contained in Attachment 1.

Recommendation

Your Hearing Officer makes no recommendations in this matter.

Respectfully Submitted,



Wayne Cordes, Hearing Officer for
Portland Hearing, August 16, 1979



Jerry Jensen, Hearing Officer for
Bend Hearing, August 7, and Eugene
Hearing, August 9, 1979



AIR LINE PILOTS ASSOCIATION

1625 MASSACHUSETTS AVENUE, N.W. □ WASHINGTON, D.C. 20036 □ (202) 797-4000

September 18, 1979

Mr. Paul E. Burket
Aeronautics Administrator
State of Oregon Aeronautics Division
3040 25th Street, S. E.
Salem, Oregon 97310

Dear Mr. Burket:

I appreciate your informing me of pending Oregon Department of Environmental Quality rulemaking on the subject of noise abatement, since this matter is of direct interest to the membership of the Air Line Pilots Association.

This Association has serious concern that the proposal is aimed at minimizing community noise through modification of aircraft operating techniques. Such an approach is unwise and can be unsafe due to imposition of requirements beyond the capabilities of the aircraft and crews. No mechanisms, other than arbitrary judgement, to assure analysis of noise abatement procedures for factors such as terrain clearance, noise benefits, and stall speed margins are included in this proposal. It is our experience that many jurisdictions have attempted to impose unrealistic performance limitations and have misled the public in promising significant noise benefits. Such actions have only created further discontent in communities and opposition from aircraft operators when the benefits proved to be impossible to bring about. All involved should understand that, until improved technology is generally available, there are only two FAA noise measures that are acceptable for transport aircraft:

- 1) FAR 91.85(c) describing flap usage limitations.
- 2) Advisory Circular 91-53 describing a takeoff noise abatement procedure.

RECEIVED

SEP 21 1979

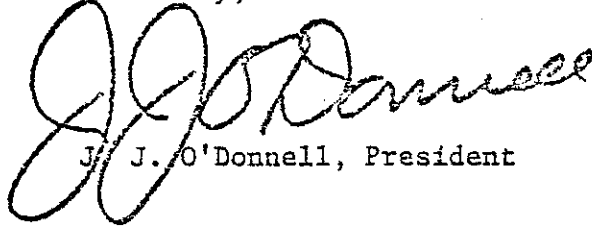
Noise Pollution Control

Paul E. Burket
Page Two

To go beyond these measures involves pre-emption of Federal control of the National Air Transportation System, an action to which this Association is strongly opposed. Any state or local operating proposal must be carefully screened by pilots and the FAA for its safety implications.

The Air Line Pilots Association encourages local and state governments to intelligently utilize land surrounding airports to achieve noise compatibility and to carefully guard against the temptation to require unsafe maneuvers by aircraft as a means of controlling aircraft noise. Further actions taken by state and local jurisdictions to restrict airport usage must be regarded as restrictions to air commerce and will undoubtedly bring about legal tests and diminution of air service within the state.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. J. O'Donnell". The signature is written in dark ink and is positioned above the typed name.

J. J. O'Donnell, President

JJO'D/jc



SEP 27 1979

Mr. William H. Young
Director, Oregon Department of
Environmental Quality
P.O. Box 1760
Portland, Oregon 97207

Dear Mr. Young:

We have completed our review of the proposed airport noise rule including formal coordination with the U.S. Environmental Protection Agency (EPA). This letter reflects substantial agreement but not an absolute consensus between the two agencies. As discussed with Mr. Hector on September 13, 1979, we offer the following comments to supplement our letter of August 31, 1979.

We encourage the State of Oregon to take an active role in planning for noise abatement at airports. EPA believes mandatory planning is necessary, although no decision has been made on this at the federal level. The requirement for such planning should be closely tailored to match the complexity of problems at any given airport. Likewise, the noise abatement plans which result should vary significantly depending on the type of airport and its problems.

The proposed rule should be rewritten to clarify the responsibilities of federal, state, and local agencies and the specific interagency coordination needed to effectively carry out noise reduction efforts. State and local agencies mandate most land use regulations. The Federal Aviation Administration (FAA) mandates most operational regulations. The proposed rule should detail a formal procedure through which all jurisdictions work together on noise abatement plans. The plans should incorporate both the land use and operational elements, and the necessary approvals at the federal, state, and local levels prior to adoption.

RECEIVED
OCT 1 1979

Noise Pollution Control

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
OCT 2 1979

OFFICE OF THE DIRECTOR

Of particular concern is that any operational procedures under FAA authority be approved by the FAA prior to adoption of the noise abatement plans.

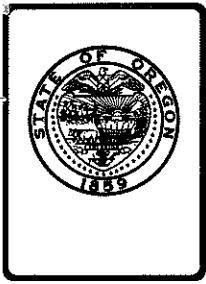
If you have any questions on our comments, please feel free to contact this office.

Sincerely,

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

ROBERT O. BROWN
Chief, Airports Division, ANW-600

cc: Paul Burket, Aeronautics Administrator, Oregon State DOT
Bill Shea, Director of Aviation, Port of Portland
Debbie Yamamoto, EPA
Chuck Stevens, Oregon State DOT
Robert Shelby, Airport Manager, Eugene, Oregon
Al Hampton, Airport Manager, Salem, Oregon
John Vlastelicia, EPA
Steve Starley, EPA, Washington, D.C.



Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Hearings Section
Subject: Agenda Item K, October 19, 1979, EQC Meeting

Contested Case Review: DEQ v. JONES, Howard
Case No. 01-SS-SWR-77-57
Exceptions and Arguments & Department's Reply

The Commission will have before it at the October 19, 1979, meeting, a review of the above referenced contested case and the Motion of Respondent to allow further evidence. I have enclosed Amended Proposed Findings of Fact, Conclusions of Law and Order of the Hearing Officer previously filed in the matter. Also enclosed are Respondent's Exceptions and Arguments, Proposed Alternative Findings of Fact, Conclusions of Law and Final Order, together with Department's Reply thereto. Respondent's Motion to allow submission of further evidence relates to approval of the subdivision in which Respondent's lot is located. A copy of the Motion and accompanying documents is included. For your convenience, a copy of OAR 340-71-030(1) is also enclosed. This section is referred to in Respondent's Alternative Findings of Fact, Conclusions of Law and Final Order, as well as the hearing officer's Order.

Respectfully submitted,


Wayne Cordes
Hearings Officer

W.Cordes:ahe
10-05-79
229-6120

Enclosures

cc: Michael Henderson (Certified Mail/Return Receipt Requested)
Department of Justice, Portland Office
Fred Bolton, Regional Operations, DEQ
Larry M. Schurr, Investigation & Compliance Section, DEQ
Southwest Region, DEQ
Curry County Department of Environmental Sanitation



Contains
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Materials

Zucker
MICHAEL HENDERSON

ATTORNEY AT LAW
111 N.E. "A" STREET
GRANTS PASS, OREGON 97526
TELEPHONE: (503) 479-9788

September 28, 1979

EAC
Hearing Section

OCT 04 1979

Environmental Quality Commission
P. O. Box 1760
Portland, Oregon 97207

RE: DEQ v. JONES, Howard
Case No. SS-SWR-77-57
Curry County

Gentlemen:

Enclosed please find a motion to be ruled upon concerning the
above referenced matter.

Very truly yours,

Michael Henderson

Michael Henderson

MH/vf

Enc.

copy of letter and enc.:

Mr. Richard P. Reiter, S.W. Regional Manager
Mr. Fred Bolton, Regional Operations Division, DEQ
Mr. Robert Haskins, Assistant Attorney General
Mr. Wayne Cordes, Hearing Officer
Mr. Larry Schurr, Investigation & Compliance Section, DEQ
Mr. Howard Jones

1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
2 OF THE STATE OF OREGON

EGC
Hearing Section

3 DEPARTMENT OF ENVIRONMENTAL QUALITY,)
4 OF THE STATE OF OREGON,,)

OCT 04 1979

5 Department,)

No. SS-SWR-77-57

6 vs.)

M O T I O N A N D

7 HOWARD JONES,)

O R D E R

8 Respondent.)
9

10 Respondent moves the Commission for an Order allowing Respon-
11 dent to submit further evidence of the approval of the subdivision
12 in which the lot in question is located for septic and which approval
13 includes the lot in question.

14 Respondent further moves the Commission for an Order appropriate
15 in the Commissions judgment to accommodate the receiving of such
16 evidence by hearing before the commission or referee.

17 These motions are made and based upon the files and records
18 herein, the annexed affidavit and the subjoined memorandum of points
19 and authorities, all of which are incorporated herein by this reference.

20
21 
Attorney for Respondent

22 POINTS AND AUTHORITIES

23 Respondent relies on OAR 340-11-132(8)
24

25 IT IS SO ORDERED

26 DATED this ____ day of _____, 1979.

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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY,)
OF THE STATE OF OREGON,)
Department,)
vs.)
HOWARD JONES,)
Respondent.)

No. SS-SWR-77-57
A F F I D A V I T

EEO
Hearing Section

OCT 04 1979

STATE OF OREGON, County of Josephine)ss.

I, MICHAEL HENDERSON, being first duly sworn, depose and say that:

I am attorney for Respondent herein;

Respondent had knowledge of the subdivisions prior approval for septic and
as a subdivision and so testified;

Without official records respondent knew that his testimony of the prior
approval would have little effect;

Respondent attempted several times to obtain copies of the official documents
prior to the hearing but was unsuccessful;

Subsequent to the hearing Respondent continued his efforts to obtain copies
of and locate the official records. He ultimately was successful. Attached is a
copy of the official records of the approval of the subdivision which is in-
corporated herein by this reference;

I make this affidavit in support of the motion to the commission to accept
this evidence.

Michael Henderson
MICHAEL HENDERSON

SUBSCRIBED AND SWORN TO before me this 28 day of September, 1979.

VICKI L. FRAZIER
NOTARY PUBLIC-OREGON
My Commission Expires

Vicki L. Frazier
Notary Public for Oregon
My commission expires: 4-26-83

MICHAEL HENDERSON
ATTORNEY AT LAW
111 N.E. "A" STREET
POST OFFICE BOX 1416
GRANTS PASS,
OREGON 97526
TELEPHONE:
(503) 479-9788

1000 E. Measure from school grounds
27 July 1970

ADDRESS PO Box 1184 Brookings, Oregon SUB-DIVISION Rawbon Reck Hpts

OWNSHIP 9-00 RANCE A-5 SECTION 14 W SUB-SECTION 25 GRID-SECTION 11-20 NEW-NEW 12-00 PAY LOT NO. 705

DIAS: NO.	P S	" 6'	1 st W	301	1 st W	1 st W	1 st W	1 st W	1 st W	1 st W	1 st W	1 st W	1 st W	1 st W	1 st W	1 st W	1 st W		
1	0"	24"	34"	24 3/4"	1 1/4"	26"	1/2"	26 1/2"	1/2"	27"	1/2"	27 1/2"	3/4"	28 1/4"	1/2"	28 1/4"	1"	29"	140 P-6E
2	5"	30"	3/2"	30 1/2"	1/2"	30 3/4"	1 1/4"	31"	1/2"	28 3/4"	1/2"	29"	1/4"	29 1/4"	3/4"	29 1/4"	3/4"	30 3/4"	55 P-6E
3	0"	29 1/4"	3 1/4"	29 1/2"	1 1/2"	29 3/4"	1 1/2"	30 1/2"	1 1/2"	31 1/2"	1 1/2"	32 1/2"	1 1/2"	33 1/2"	1 1/2"	34 1/2"	1 1/2"	35 1/2"	16 P-6E
4	0"	24 1/4"	1 1/2"	25 1/2"	2 3/4"	25"	2"	27"	2"	25"	1 1/2"	27 1/4"	1"	28 1/4"	1 1/2"	29 1/4"	1 1/2"	30 1/4"	30 P-6E
5	0"	26 1/4"	1 3/4"	26 3/4"	1 1/2"	27 1/4"	1 1/2"	28 1/4"	1 1/2"	29 1/4"	1 1/2"	30 1/4"	1 1/2"	31 1/4"	1 1/2"	32 1/4"	1 1/2"	33 1/4"	18 P-6E
6	0"	23 3/4"	2 3/4"	24 1/2"	1 3/4"	25 1/4"	1 3/4"	26 1/4"	1 3/4"	27 1/4"	1 3/4"	28 1/4"	1 3/4"	29 1/4"	1 3/4"	30 1/4"	1 3/4"	31 1/4"	18 P-6E
7	0"	27 1/2"	5 1/2"	27 3/4"	5 3/4"	28 1/2"	5"	29 1/2"	5 1/4"	30 1/2"	5 1/4"	31 1/2"	5 1/4"	32 1/2"	5 1/4"	33 1/2"	5 1/4"	34 1/2"	15 P-6E
8	0"	28 1/2"	1"	29 1/2"	1 1/2"	30"	1 1/2"	31"	1 1/2"	32"	1 1/2"	33"	1 1/2"	34"	1 1/2"	35"	1 1/2"	36"	20 P-6E
9	3 3/4"	23 3/4"	1 3/4"	23 1/2"	1 1/4"	23 3/4"	3/4"	24 1/4"	1/2"	25"	1/2"	25 1/4"	3/4"	26 1/4"	1/2"	27 1/4"	3/4"	28 1/4"	160 P-6E

GENERAL WEATHER CONDITIONS

7-26 Ht 75°F breezy

GENERAL SOIL CHARACTERISTICS

lots 1, 2 & 3: some clay in wet sand

PS - Pro-soaked *standing water day for 10.1 mg pre-soak. P

7-27 (Tests made) overcast

lots 4, 5 & 6: loose clay loam, somewhat

lots 7 & 9: pebble in 1/4" sand MPI

T - Time

* Holes dry after 0'30" next time, final reading hard on 14" permeant water in hole.

55°F, calm

lots 7 & 9: pebble in 1/4" sand MPI

lots 7 & 9: pebble in 1/4" sand MPI

IF - Inches fall

Time, final reading hard on 14" permeant water in hole.

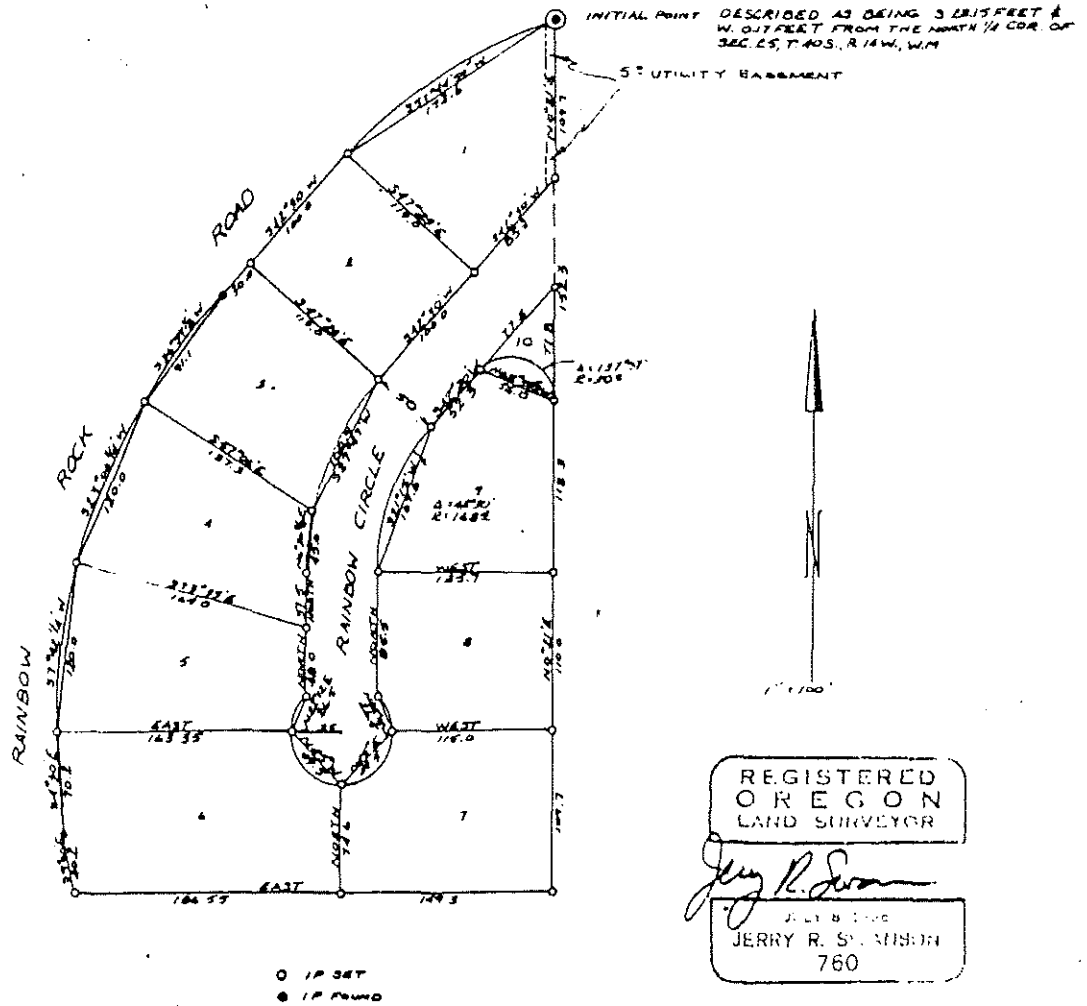
2-77 Wren - heavy sky scattered

65°F

Upper 10" hard loam 2' soft loam

MIN - Minutes per inch

WATER PERMEABILITY TESTS



APPROVED FOR CITY OF BROOKINGS, OREGON

APPROVED BY THE PLANNING COMMISSION OF THE CITY OF BROOKINGS, OREGON, AS REQUIRED BY LAW ORS 92.042 AND RECORDED IN THE MINUTES OF REGULAR COMMISSION MEETING THIS 24TH DAY OF SEPT. 1968.

Wendell O. Hault CHAIRMAN
Maxine & McVernan SECRETARY

APPROVED FOR CURRY COUNTY, OREGON

[Signature] JUDGE
Alan R. Hult COMMISSIONER
James Colegrove COMMISSIONER
Charles R. Fitzhugh ASSESSOR
H. J. Newhouse COUNTY SURVEYOR
 COUNTY CLERK FILED-
Lorna Myrick, Deputy TAX COLLECTOR TAXES PAID UNTIL - June 3

RAINBOW HEIGHTS SUBDIVISION

LOCATED WITHIN

SECTION 25, T 40 S, R 14 W, WM
CURRY COUNTY, OREGON

DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT WE, JAMES HORN & D FLORENE HORN, HUSBAND AND WIFE, ARE OWNERS IN FEE SIMPLE OF THE LANDS DESCRIBED HEREIN THE SURVEYOR'S CERTIFICATE, THAT WE HAVE CAUSED SAID LANDS TO BE SUBDIVIDED AND PLATTED AS RAINBOW HEIGHTS SUBDIVISION AND HEREBY DEDICATED TO THE PUBLIC, FOREVER, THE STREET SHOWN HEREON IN TESTIMONY WHEREOF, WE HAVE SET OUR HANDS AND SEALS THIS 8TH DAY OF April 1969

James Horn
D Florene Horn

STATE OF OREGON SS
COUNTY OF CURRY

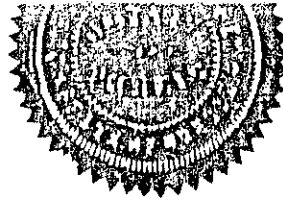
BE IT REMEMBERED THAT ON THIS 8TH DAY OF April 1969 BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC, IN AND FOR SAID COUNTY AND STATE, APPEARED JAMES HORN & D FLORENE HORN, TO ME PERSONALLY KNOWN TO BE THE IDENTICAL INDIVIDUALS NAMED AND DESCRIBED IN AND WHO EXECUTED THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT THEY EXECUTED SAME FREELY AND VOLUNTARILY. IN TESTIMONY WHEREOF, I HAVE SET MY HAND AND SEAL THE DAY AND YEAR LAST ABOVE WRITTEN



Edward Murphy
MY COMMISSION EXPIRES April 14, 1970

SURVEYOR'S CERTIFICATE

STATE OF OREGON SS
COUNTY OF CURRY



I, JERRY R SWANSON, BEING DULY SWORN SAY THAT I AM A SURVEYOR BY OCCUPATION THAT I HAVE SURVEYED THE LAND EMBRACED IN THE ACCOMPANYING PLAT AND MARKED THEREON THAT I PLANTED A 2" GALVANIZED IRON PIPE MONUMENT INDICATING THE INITIAL POINT OF SAID SUBDIVISION AT A POINT SOUTH 28.15 FEET AND WEST 0.17 FEET FROM THE QUARTER SECTION CORNER BETWEEN SECTIONS 24 & 25 TOWNSHIP 40 SOUTH, RANGE 4 WEST, W.M., CURRY COUNTY, OREGON. THENCE, SOUTHERLY ON THE ARC OF A 328.10 FOOT RADIUS CURVE LEFT (THE LONG CHORD OF SAID CURVE BEARS S 57°44'50" W A DISTANCE OF 172.57 FEET) A DISTANCE OF 174.61 FEET TO AN IRON PIPE THENCE, S 42°30' W ALONG THE EASTERLY RIGHT-OF-WAY LINE OF RAINBOW ROCK ROAD A DISTANCE OF 130.00 FEET TO AN IRON PIPE THENCE, ALONG THE EASTERLY RIGHT-OF-WAY OF SAID COUNTY ROAD ON THE ARC OF A 447.50 FOOT RADIUS CURVE LEFT (THE LONG CHORD OF SAID CURVE BEARS S 16°45' W A DISTANCE OF 388.83 FEET) A DISTANCE OF 402.20 FEET TO AN IRON PIPE THENCE, S 9°00' E ALONG SAID EASTERLY RIGHT-OF-WAY LINE A DISTANCE OF 40.19 FEET TO AN IRON PIPE. THENCE, EAST A DISTANCE OF 335.88 FEET TO AN IRON PIPE THENCE, NORTH 0°21' EAST A DISTANCE OF 600.00 FEET TO THE POINT OF BEGINNING.

SUBSCRIBED AND SWORN TO BEFORE ME THIS 11th DAY OF Dec 1968.

Jerry R Swanson

Edward R. Hendry
NOTARY PUBLIC OF OREGON

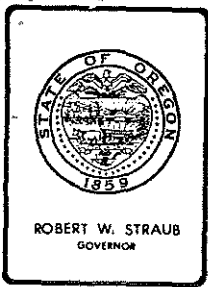
MY COMMISSION EXPIRES My Commission Expires



NOTE

LOT RESTRICTIONS ARE AS SHOWN ON THE REVERSE SIDE OF THIS PLAT.

270



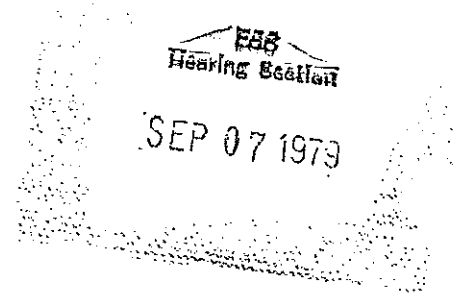
Department of Environmental Quality

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-6932

September 7, 1979

Environmental Quality Commission
Hearings Section
P. O. Box 1760
Portland, Oregon 97207

RE: DEQ v. Jones, Howard
Case No. 01-SS-SWR-77-57
Curry County



Enclosed for filing in the above referenced case is Department's Reply to Respondent's Exceptions and Arguments.

If you have any questions, please call 229-6932.

Sincerely,

Larry M. Schurr
Special Investigator
DEQ Regional Operations

LMS:hk

Enclosure

cc: DEQ Director William H. Young
Michael Henderson, Attorney for Respondent
DEQ Regional Operations, Fred M. Bolton
DEQ Southwest Regional Office
DEQ Subsurface Sewage Program, Jack Osborne
Curry County Health Dept.



Contains
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Materials

1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
2 OF THE STATE OF OREGON

DEQ
Hearing Section

SEP 07 1973

3 DEPARTMENT OF ENVIRONMENTAL QUALITY,)
4 OF THE STATE OF OREGON,)
5 Department,)
6 v.)
7 HOWARD JONES,)
8 Respondent.)
9 No. SS-SWR-77-57)
10 DEPARTMENT'S)
11 REPLY TO RESPONDENT'S)
12 EXCEPTIONS AND ARGUMENTS

9 I

10 Department's reply to Respondent's Exception No. 1 (that the
11 revocation of Respondent's Permit was arbitrary) is as follows:

12 Respondent admitted that he knew prior to his purchase of the
13 property, that a subsurface permit had been denied for Tax Lot No. 700
14 because of the occurrence of springs on the property.

15 Curry County notified respondent, after he applied, Mr. Jones that
16 a permit could not be issued (first denial).

17 Respondent asked for review by Department's regional staff. Mr. Baker
18 made that review on April 8, 1975 and notified Respondent by letter
19 (Department's Exhibit No. 1) of several deficiencies on Respondent's
20 property, as well as on adjacent property, including Respondent's Tax Lot
21 No. 600, that prevented the Department from issuing a permit (second
22 denial). At the request of Respondent, Mr. Baker conducted yet another
23 review of the area on June 3, 1975, and found essentially the same
24 deficiencies which prohibited the issuance of a permit. Mr. Baker notified
25 Respondent of his findings by letter of June 9, 1975, (Department's Exhibit
26 No. 3; the third denial).

1 On February 18, 1977, Mr. Henderson, of Curry County, incorrectly
2 issued a permit to Respondent. He did so after Respondent represented
3 to Mr. Henderson that the spring to the south of Tax Lot No. 700 was
4 actually a pipe carrying water from far up the hill. The fact that a
5 spring does occur south of Tax Lot No. 700 was well established through
6 the testimony of Mr. Harrell. Also, Mr. Henderson was not aware that a
7 well on adjacent property was within 100 feet of the proposed subsurface
8 system. Respondent was required to show any well on adjacent property
9 on his application. Respondent failed to do so.

10 Regardless, within 10 days of issuance, Mr. Baker, who had review
11 authority over Mr. Henderson's work, notified Respondent that Curry County
12 had issued the permit in error and that the Department may have to revoke
13 Respondent's permit. Mr. Baker further advised Respondent not to proceed
14 with the construction of Respondent's system until the matter could be
15 settled. Respondent suffered no damage or expense during the period
16 between issuance of the permit and notification by Mr. Baker that the
17 permit may have to be revoked.

18 In summary, Respondent had prior knowledge, and was otherwise notified
19 on at least three (3) separate occasions that his property was not suitable
20 for the subsurface disposal of sewage. A permit was issued in error.
21 Within ten (10) days of permit issuance, Mr. Baker notified Respondent
22 that the Department would seek revocation. Respondent suffered no loss
23 in the interim period.

24 Conclusion: Considering the history of prior site denials as is
25 established in the record, the Department's action to revoke an incorrectly
26 issued permit certainly cannot be deemed to be arbitrary. Mr. Baker

1 testified that in his expert opinion, a subsurface sewage disposal system
2 could not function properly on Respondent's property. If installed, the
3 system would violate several of the Commissions rules as specified in the
4 record. (Mr. Baker's testimony and Department's Exhibits No. 1 and No. 3).
5 Pursuant to ORS 468.070(1), the Department, at any time, may revoke a
6 permit if it finds a violation of even a single rule or standard of the
7 Commission. To allow a system to be installed on Respondent's property,
8 with the strong likelihood that it would create a public health hazard
9 and/or impair the quality of public and private waters, would be
10 irresponsible, and a disservice to all involved.

11 II

12 Department's reply to Respondent's Exception No. 2 (that a restrictive
13 layer exists within thirty (30) inches of the surface) is as follows:

14 OAR 340-71-030(1)(b) - Prohibits a disposal area where there is a
15 restrictive layer less than 30 inches below the surface of the ground:

16 Mr. Baker testified as to his expertise and training in soil science
17 as applied to subsurface sewage disposal systems. He observed that the
18 soil was cut down to cemented sandstone (bedrock) and that it was
19 restrictive. Respondent testified that there was trouble on the lot;
20 standing water and swampgrass. Respondent also testified that the soil
21 was "dry dirt" at depth, while wet at the surface. The conditions that
22 Respondent observed are characteristic of restrictive soils.

23 Respondent offered no expert testimony to contradict Mr. Baker's
24 testimony. Although Mr. Baker did not see the test pits or the open
25 trenches, he could see the restrictive bedrock (sandstone) exposed in tthe
26 "cut" portion of Respondent's property and also was able to examine and

1 sample the soil with auger and probe. Mr. Baker was able to testify in
2 detail on the record regarding his observations including relationship
3 of the "slope to the depth to restrictive layer" on Respondent's property.

4 Conclusion: Respondent has failed to present any substantial argument
5 to warrant a reversal of the Hearing Officer's finding and conclusion with
6 regards to restrictive soil.

7 III

8 Department's reply to Respondent's Exception No. 3 (that the soil
9 in the area of the drainfield was modified) is as follows:

10 OAR 340-71-030 (1) (h) - Prohibits a disposal area in any area that
11 has been filled or where the soil has been modified: Respondent admits
12 cutting and filling the drainfield area. The cut is clearly pictured in
13 Respondent's Exhibit No. 2. Mr. Baker testified that in his expert
14 opinion, a subsurface sewage disposal system would not function
15 satisfactorily in the cut area because of the loss of soil structure and
16 organisms.

17 Respondent has presented no expert testimony or evidence to contradict
18 Mr. Baker's testimony, nor has Respondent demonstrated that the effects
19 of the soil modification were so inconsequential as to warrant a variance
20 from OAR 340-71-030 (1) (h).

21 Conclusion: Respondent has failed to present any substantial argument
22 to warrant a reversal of the Hearing Officer's finding and conclusion with
23 regards to soil modification.

24 IV

25 Department's reply to Respondent's Exception No. 4 is as follows:
26

1 Those issues raised in Respondent's Exception No. 4 have already been
2 adjudicated in favor of Respondent, with regards to Department's use of
3 those issues as additional grounds for permit revocation. However, much
4 testimony was taken on those issues which is relevant to Department's
5 inspections and subsequent denials of a permit to Respondent; in that
6 limited scope, the record and those certain references in the Hearing
7 Officer's findings should be preserved.

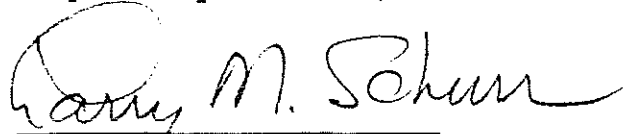
8 V

9 Department's reply to Respondent's Exception No. 5 (degree of proof
10 required) is as follows:

11 It is well established that the degree of proof required in
12 administrative hearings before the Environmental Quality Commission or
13 it's Hearing Officer will be by a preponderance of the evidence.
14 Department has met it's required burden of proof.

15 For all of the above reasons, the commission should adopt the
16 Recommendations of the Hearings Officer. Respondents permit should be
17 revoked.

18 Respectfully Submitted,

19 

20 Larry M. Schurr
21 Special Investigator
22 Regional Operations, DEQ
23
24
25
26

CERTIFICATE OF SERVICE

(Mail)

STATE OF OREGON)
COUNTY OF MULTNOMAH) ss

ESS
Hearing Section
SEP 11 1979

I, Hallie Kraetsch, being a competent person over the age of eighteen (18) years, do hereby certify that I served Michael Henderson, Attorney at Law by mailing by certified mail to Name of Party (Name of Person to whom Document addressed)

RE: Howard Jones Case No. 01-SS-SWR-77-57
(and if not the party, their relationship)

Department's Reply to Respondent's Exceptions and Arguments Cert No 348205
(Identify Document Mailed)

I hereby further certify that said document was placed in a sealed envelope addressed to said person at 111 N. E. "A" Street, Grants Pass,
Oregon 97526.

his last known address, and deposited in the Post Office at Portland, Oregon, on the 10th day of September, 1979, and that the postage thereon was prepaid.

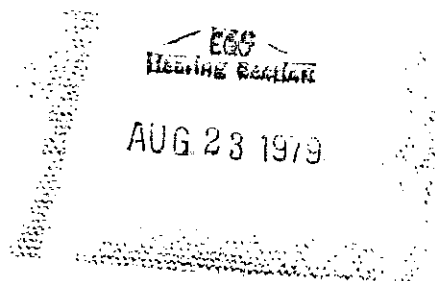
Hallie Kraetsch
Signature

MICHAEL HENDERSON

ATTORNEY AT LAW
111 N.E. "A" STREET
GRANTS PASS, OREGON 97526
TELEPHONE: (503) 479-9788

August 21, 1979

Environmental Quality Commission
P. O. Box 1760
Portland, Oregon 97207



Re: DEQ v. JONES, Howard
Case No. 01-SS-SWR-77-57
Curry County

Gentlemen:

On the Amended Proposed Findings of Fact, Conclusions of Law and Final Order SS-SWR-77-57 Curry County of which you received from my office, please correct an error made under Conclusions of Law; #2 should read "Respondent did not violate ----" rather than "Respondent did violate -----".

Very truly yours,

Michael Henderson

Michael Henderson

ME/vf

c: Mr. Richard P. Reiter
Mr. Fred Bolton
Mr. Robert Haskins
Mr. Wayne Cordes
Mr. Larry Schurr
Mr. Howard Jones

MICHAEL HENDERSON

ATTORNEY AT LAW
111 N.E. "A" STREET
GRANTS PASS, OREGON 97526
TELEPHONE: (503) 479-9788

ECC
Hearing Section

AUG 09 1979

August 3, 1979

Environmental Quality Commission
P.O. Box 1760
Portland, Oregon 97207

Re: DEQ v. JONES, Howard
Case No. 01-SS-SWR-77-57
Curry County

Gentlemen:

Enclosed please find my Amended Proposed Findings of Fact,
Conclusions of Law and Final Order and my Exceptions and
Arguments in the above matter.

Very truly yours,



Michael Henderson

MH/vf

Enc.

copy of letter and enclosures:

Mr. Richard P. Reiter, S.W. Regional Manager
Mr. Fred Bolton, Regional Operations Division, DEQ
Mr. Robert Haskins, Assistant Attorney General
Mr. Wayne Cordes, Hearing Officer
Mr. Larry Schurr, Investigation & Compliance Section, DEQ
Mr. Howard Jones

AUG 09 1979

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY)
OF THE STATE OF OREGON,)

EXCEPTIONS AND ARGUMENTS

Department,

vs.

HOWARD JONES,

Respondent.

EXCEPTIONS

Respondent excepts to the Hearing Officer not sustaining his affirmative defense that the revocation was capricious and arbitrary.

1) ARBITRARY because:

Mr. Baker inspected prior to issuance of permit.

Mr. Henderson inspected prior to permit.

Department did not deny what Respondent testified of those sequence of events including that Mr. Henderson stated Mr. Endicott was afraid of a law suit and that is why he denied the permit. Mr. Henderson attended the hearing and in fact testified but did not deny or explain the above.

According to Mr. Baker's testimony there were tests run of the soil for restrictive layers prior to the issuance of the permit. The soil modification was established well in advance of the issuance of the permit. The permit was issued by the Department after both Mr. Baker and Mr. Henderson inspected the property and tested the soils.

1 Respondent hereby incorporates by reference into this argument
2 the arguments set forth under the exceptions relating to the re-
3 strictive ground layer and soil modification.

4 Once a permit is issued the department has committed itself and
5 should be allowed to revoke the permit only for violation of the
6 rules which develop subsequent to the issuance of the permit.

7 2. Respondent excepts to the Hearing Officers find that a Restrictive
8 layer existed within thirty (30) inches of ground level.

9 Department's only witness about any restrictive layer was Mr.
10 Baker who did not see the trenches when open. Mr. Henderson did
11 see the open trenches but did not testify that there was a restric-
12 tive layer within thirty (30) inches of ground level. Quite the
13 contrary, Mr. Henderson had approved the issuance of the permit and
14 never made any comment concerning a restrictive layer, even at the
15 hearing.

16 3. Respondent excepts to the Hearing Officer finding that the soil
17 was Modified.

18 Mr. Henderson assisted Respondent throughout Mr. Jones' endeavors
19 to gain septic approval including location of the drainfield. The
20 soil modification had occurred approximately 4 years earlier. The
21 extent to which the area in which the drainfield was installed was
22 so minimally affected by the soil modification that it would not
23 have any affect on the functioning of the septic system. In addition,
24 such condition was known at the time of the issuance of the permit.

25 4. Respondent excepts to the Inclusion of any reference to:

26 -----

1 1) The disposal area is within 100 feet of a groundwater supply
2 in violation of OAR 340-71-020(2)(a);

3 2) A spring exists within 100 feet downslope from the effective
4 sidewall of the sewage disposal area in violation of OAR 340-71-020
5 (2)(b); and

6 3) An intermittent stream exists within 50 feet of the sewage
7 disposal area in violation of OAR 340-71-020(2)(c)
8 is objected to because, as the hearings officer set forth in his
9 findings of fact and conclusions of law Respondent was denied due
10 process.

11 To move to amend the notice of revocation to include more items
12 when the matter is called for hearing deprives Respondent any
13 opportunity to investigate and reflect upon the additional grounds
14 and to gather evidence in preparation to refute such grounds.

15 Respondent would have absolutely no time to prepare to meet such
16 charges. Opportunity to prepare and defend is so basic to American
17 jurisprudence that a denial of the opportunity is a denial of due
18 process. Denial of such an opportunity denies due process even if
19 Respondent was able to present some evidence to refute the charges.

20 5. Respondent objects that the department's burden of proof was by
21 a preponderance of the evidence rather than beyond a reasonable
22 doubt to a moral certainty. See ORS 41.250

23
24
25
26

Michael Henderson
Attorney for Respondent

AUG 09 1979

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY
of the STATE OF OREGON,

Department,

vs.

HOWARD JONES,

Respondent.

AMENDED PROPOSED FINDINGS OF
FACT, CONCLUSIONS OF LAW, AND
FINAL ORDER SS-SWR-77-57
CURRY COUNTY

BACKGROUND

This contested case proceeding involves a Notice of Intent to Revoke a Subsurface Sewage Disposal System Permit, called "Notice."

The Notice alleges that on February 17, 1977, Respondent filed with Department an application for a construction permit for a subsurface sewage disposal system on Respondent's lot (Tax Lot 700 in Curry County, Oregon; also sometimes described as Lot 7). Department, through its contract agent, Curry County Health Department, issued Respondent a permit on February 18, 1977.

Department alleges in its Notice that at the time of application there were, and now are, conditions on Respondent's property which violate Department subsurface sewage disposal rules as follows:

- A. Inadequate area for a full replacement disposal area in violation of OAR Section 340-71-020(3)(a);
- B. A restrictive layer occurs less than thirty (30) inches below the surface of the ground in violation of OAR Section 340-71-030(1)(b);
and
- C. The area of the sewage disposal system has been modified in violation

1 of OAR Section 340-71-030(1)(h).

2 In answer, Respondent denies the above three allegations. Respondent
3 alleges that he has, at the insistence and request of Department officials and
4 at considerable expense to himself, made improvements required in order to
5 obtain a permit; and the certificate of approval has been granted pursuant to
6 Respondent's compliance with requirements of the official requiring the improve-
7 ments. Respondent also contends that the attempt to revoke the described permit
8 is arbitrary and capricious, and not based upon fact.

9 EVIDENTIARY AND OTHER RULINGS AND "OFFICIAL NOTICE"

10 During the hearing certain rulings were made, but certain rulings with re-
11 spect to pleadings and other matters were reserved.

12 Prior to the taking of testimony, Department moved for authorization to
13 amend its Notice by adding three additional grounds for revocation, including the
14 following:

- 15 A. The disposal area is within 100 feet of a groundwater supply in
16 violation of OAR 340-71-020(2)(a).
17 B. A spring exists within 100 feet downslope from the effective sidewall
18 of the sewage disposal area in violation of OAR 340-71-020(2)(b).
19 C. An intermittent stream exists within 50 feet of the sewage disposal
20 area in violation of OAR 340-71-020(2)(c).

21 Additionally, Department moved to revoke Respondent's permit pursuant to
22 ORS 468.070(1)(a). (A material misrepresentation or false statement in the
23 application for permit.)

24 Respondent's counsel resisted the motion to amend the Notice, by additions,
25 contending that this would violate Respondent's rights with respect to "due pro-
26 cess." The additional grounds were stated to have been confirmed the day prior

1 to the hearing. Ruling was reserved on the motion to add grounds for revocation,
2 but at this time the motion is denied.

3 Department also moved to strike paragraphs 4 and 5 of Respondent's request
4 for hearing, on the ground that the same constituted the pleading of evidence,
5 and ruling was reserved. The motion is now denied, based on the provisions of
6 OAR 340-11-107(2), which requires a Respondent to affirmatively allege any and all
7 affirmative "claims" or "defenses."

8 Request was also made by Department that "official notice" be taken that
9 "pace and compass" is a recognized method of linear measurement. Such notice
10 has not been taken, since no citation or other authority has been found support-
11 ing that proposition. The policy behind use of "judicial notice," and thus
12 "official notice," is that the fact is so commonly known that it is unprofitable
13 to require proof, and it is so certainly known that it is undisputable among
14 reasonable men. It may be commonly used and accepted in various professions and
15 occupations, but that fact alone does not make it subject to "official notice."
16 Department objected to admission of Respondent's Ex. 3, which purported to be a
17 "partial topography" of Respondent's Lots 6 and 7, in Rainbow Heights Subdivision,
18 prepared by an engineering and surveying firm. The objection is now sustained,
19 for the reasons that the document is undated, unsigned, uncertified, and no wit-
20 ness sponsored the document who could testify as to its authenticity and method
21 of preparation.

22 At the start of his case in chief, Respondent's counsel moved to strike
23 Department's allegations with respect to "modification" of the area of the dis-
24 posal system. The motion was based in large part on Respondent's Ex. 1, which
25 purported to be an approval of a subdivision containing Respondent's property by
26 the City Planning Commission of the City of Brookings in September, 1968.

1 Respondent claims that the property involved falls within the provisions of OAR
2 340-71-030(1)(h), which provide an exception to the prohibition against install-
3 ation of disposal trenches in filled or modified areas, where a subdivision or lot
4 has been approved by an appropriated governing body prior to January 1, 1974.
5 While Respondent's Ex. 1 was admitted, and was used by witnesses to explain
6 portions of their testimony, the motion to strike is now denied, for the reasons
7 that the exhibit is not certified by the legal custodian, and later testimony by
8 Respondent himself demonstrated that his property was not within the limits of
9 any city.

10 FINDING OF FACT

11 1) At all times material herein, Respondent and his wife were the owners
12 of Tax Lot 700 (or 7), the premises containing the sewer system, and adjoining
13 lot, Tax Lot 600 (or 6). Ownership was stipulated by the parties.

14 2) Respondent's premises were not within the city limits of the City of
15 Brookings, Oregon , nor had the lots, or a subdivision containing said lots, been
16 approved by an appropriate governing body prior to January 1, 1974.

17 3) In or about February and March 1974, Respondent bulldozed or scraped
18 away a portion of the premises and soils on Lot 7, and caused fill material to be
19 placed on said lot.

20 4) On or about April 8 and June 3, 1975, Department representatives ex-
21 amined Respondent's premises to determine suitability for installation of a
22 subsurface sewage disposal system.

23 5) On said dates (April 8 and June 3, 1975), Respondent's premises met
24 Department rules in the following respects: there existed 4 feet of top soil;
25 the soil in the area for the disposal system had been inconsequentially modified
26 by fill which was of a minimal amount in a small area of the area
occupied by the drainfield. Respondent's testimony.

1 6) On or about February 17, 1977, Respondent applied for a construction
2 permit for a system to serve a two-bedroom mobile home on Lot 7. On February 18,
3 1977, Department's agent (a Curry County Sanitarian) approved the application.
4 Department's Ex. 2. The date of approval was stipulated by the parties.

5 7) On or about March 1, 1977, Department notified Respondent in writing
6 that the construction permit "may have to be revoked." Department's Ex. 5. The
7 system on Respondent's property had not yet been constructed on March 1, 1977.

8 8) Department's Notice dated March 28, 1977, was received by Respondent
9 on April 5, 1977.

10 9) The subsurface sewage disposal system was constructed by Respondent's
11 contractor in or about the month of June, 1977, on Lot 7.

12 10) The system, although constructed, has not been connected or used by
13 Respondent.

14 11) Respondent affirmatively alleged in his Request for Hearing that the
15 attempt to revoke the permit by Department was arbitrary and capricious, and not
16 based upon fact.

17 ISSUES

18 1) Does Respondent's property fall within the exemption of subsection (h)
19 of OAR 340-71-030(1), as to filling or soil modification approved prior to
20 January 1, 1974?

21 2) Did Respondent violate the provisions of OAR 340-71-030(1)(h) by in-
22 stalling his system in an area which has been filled or the soil modified?

23 3) Did Respondent violate the provisions of OAR 340-71-030(1)(b) by in-
24 stalling his system in an area where a restrictive layer exists within thirty
25 (30) inches of the ground surface?

26 4) Does Respondent have the burden of proving alleged arbitrary and

AMENDED PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND FINAL ORDER - Page 5

1 capricious actions by Department in revoking a permit, if such claims are
2 affirmatively alleged by Respondent?

3 5) Can Department revoke a permit after issuance, and actual construction
4 of a system, if violations of any applicable rule or standard of the Commission
5 are found to exist?

6 CONCLUSIONS OF LAW

7 1) The Commission has jurisdiction over the parties and the subject
8 matter of this proceeding.

9 2) Respondent did violate the provisions of OAR Section 340-71-030(1)(b)
10 by constructing a system in soils where there exists a restrictive layer within
11 thirty (30) inches of the ground surface.

12 3) Respondent did not violate the provisions of OAR 340-71-030(1)(h) by
13 constructing a system in an area which had been filled because such fill was so
14 minimal as to have no impact on the functioning of the system.

15 4) Department has failed to prove by preponderance of the evidence that
16 there is no adequate replacement or repair area, since Respondent could use
17 portions of both Lot 7 and adjoining Lot 6 which he also owns.

18 5) Respondent has the burden of proving his affirmative allegations that
19 Department's action in revoking Respondent's permit are arbitrary and capricious,
20 and has by a preponderance of the evidence proved such allegations.

21 6) Department may revoke a permit at any time, even after construction,
22 if it finds a violation of any applicable rule, standard, or order of the
23 Commission, pursuant to the provisions of ORS 468.070(1)(d).

24 OPINION

25 On or about March 1, 1977, Department notified Respondent in writing that
26 the construction permit may have been issued incorrectly, and requested that

1 installation not proceed until further site review. Department's Ex. 5. The
2 disposal system had not yet been installed at that time. Respondent testified
3 that he then engaged an attorney to contact Department concerning the matter,
4 but for approximately three months no response was received. The correspondence
5 is not in evidence, but there is no reason to doubt that this occurred. After
6 waiting for this period, Respondent hired a contractor to excavate a hole for
7 the system's septic tank, but Department's agent halted construction when the
8 excavation was almost complete. After further discussion, Respondent testified
9 that Department's agent stated that he could not stop Respondent from installing
10 his system, but that it could be "condemned" after installation. Respondent
11 stated that this was the procedure he would take, that is, to install the system
12 and then have it checked. If the system did not then comply with rules and
13 regulations, then "condemn." Presumably, the parties were referring to permit
14 revocation, rather than "condemnation" in the usual sense. Respondent, through
15 counsel, attempted to bring Respondent's property within the exception in OAR
16 340-71-030(1)(h), authorizing presently prohibited disposal trenches within
17 areas approved prior to January 1, 1974. However, Respondent, in answer to a
18 question posed by his own counsel, stated that his property was not within a
19 city, but was rural in character, and within the County of Curry. There was no
20 satisfactory evidence that a subdivision, or Respondent's property, had been
21 approved by a County Commission or other appropriate governing body prior to
22 January 1, 1974, to bring it within any exception to Department rules and
23 regulations.

24 Respondent proceeded with construction after he had been notified that
25 the permit may have been improperly issued, and in fact, after he had received
26 Department's Notice of Revocation.

1 1. The Department did not carry its burden of proof that there was a
2 restrictive layer within 30 inches of the ground surface at the actual site of
3 installation of the drainfield. The Department's witness, Mr. Baker, did not
4 see the drainfield while open and did not testify as to the location of the test
5 holes to the installed drainfield.

6 The testimony concerning the soils at the actual site of the drainfield
7 was that there was 4 feet of top soil. Further that the extent of the fill in
8 the area was that it was in a swale no deeper than 1 foot tapering to nothing of
9 minimal width and length such that it would not disturb the bacteria in or
10 structure of the original top soil at the site of the drainfield

11 In as much as Respondent was not afforded reasonable notice of additional
12 grounds for revocation nor reasonable time to prepare to meet such grounds
13 Respondent was not afforded due process and those grounds were not considered.

14 FINAL ORDER

15 It is hereby Ordered:

- 16 1) The preceding Evidentiary and other Rulings, Proposed
17 Findings of Fact, and Conclusions of Law are entered herein; and
18 2) The Notice of Intent to Revoke Subsurface Sewage Disposal
19 System Permit heretofore issued to Respondent by the Director under
20 date of March 28, 1977, is hereby rescinded.

21 Dated this 3rd day of August, 1979.

22 Respectfully submitted,

23

24

Michael Henderson
Attorney for Respondent

25

26

1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

2 OF THE STATE OF OREGON

3 DEPARTMENT OF ENVIRONMENTAL QUALITY)
of the STATE OF OREGON,)

4 Department,)

5 v.)

6 HOWARD JONES)

7 Respondent.)

AMENDED PROPOSED FINDINGS OF
FACT, CONCLUSIONS OF LAW, AND
FINAL ORDER SS-SWR-77-57
CURRY COUNTY

8 BACKGROUND

9 This contested case proceeding involves a Notice of Intent to Revoke a
10 Subsurface Sewage Disposal System Permit, called "Notice."

11 The Notice alleges that on February 17, 1977, Respondent filed with
12 Department an application for a construction permit for a subsurface sewage
13 disposal system on Respondent's lot (Tax Lot 700 in Curry County, Oregon; also
14 sometimes described as Lot 7). Department, through its contract agent, Curry
15 County Health Department, issued Respondent a permit on February 18, 1977.

16 Department alleges in its Notice that at the time of application there
17 were, and now are, conditions on Respondent's property which violate Department
18 subsurface sewage disposal rules as follows:

- 19 A. Inadequate area for a full replacement disposal area in violation
20 of OAR Section 340-71-020(3) (a);
- 21 B. A restrictive layer occurs less than thirty (30) inches below the
22 surface of the ground in violation of OAR Section 340-71-030(1) (b);
23 and
- 24 C. The area of the sewage disposal system has been modified in violation
25 of OAR Section 340-71-030(1) (h).

26 In answer, Respondent denies the above three allegations. Respondent

1 alleges that he has, at the insistence and request of Department officials and
2 at considerable expense to himself, made improvements required in order to
3 obtain a permit; and the certificate of approval has been granted pursuant to
4 Respondent's compliance with requirements of the official requiring the
5 improvements. Respondent also contends that the attempt to revoke the described
6 permit is arbitrary and capricious, and not based upon fact.

7 EVIDENTIARY AND OTHER RULINGS AND "OFFICIAL NOTICE"

8 During the hearing certain rulings were made, but certain rulings with
9 respect to pleadings and other matters were reserved.

10 Prior to the taking of testimony, Department moved for authorization to
11 amend its Notice by adding three additional grounds for revocation, including
12 the following:

- 13 A. The disposal area is within 100 feet of a groundwater supply in
14 violation of OAR 340-71-020(2) (a).
15 B. A spring exists within 100 feet downslope from the effective sidewall
16 of the sewage disposal area in violation of OAR 340-71-020(2) (b) (B).
17 C. An intermittent stream exists within 50 feet of the sewage disposal
18 area in violation of OAR 340-71-020(2) (c).

19 Additionally, Department moved to revoke Respondent's permit pursuant to
20 ORS 468.070(1) (a). (A material misrepresentation or false statement in the
21 application for permit.)

22 Respondent's counsel resisted the motion to amend the Notice, by additions,
23 contending that this would violate Respondent's rights with respect to "due
24 process." The additional grounds were stated to have been confirmed the day
25 prior to the hearing. Ruling was reserved on the motion to add grounds for
26 revocation, but at this time the motion is denied.

1 Correspondence from Department to Respondent in 1975 indicated possible
2 problems (unsuitability) with respect to setback distances from groundwater
3 supplies and down-gradient surface public waters. The Notice, dated March 28,
4 1977, however, did not mention these matters.

5 Department also moved to strike paragraphs 4 and 5 of Respondent's request
6 for hearing, on the ground that the same constituted the pleading of evidence,
7 and ruling was reserved. The motion is now denied, based on the provisions
8 of OAR 340-11-107(2), which requires a Respondent to affirmatively allege any
9 and all affirmative "claims" or "defenses."

10 Request was also made by Department that "official notice" be taken that
11 "pace and compass" is a recognized method of linear measurement. Such notice
12 has not been taken, since no citation or other authority has been found
13 supporting that proposition. The policy behind use of "judicial notice," and
14 thus "official notice," is that the fact is so commonly known that it is
15 unprofitable to require proof, and it is so certainly known that it is
16 undisputable among reasonable men. It may be commonly used and accepted in
17 various professions and occupations, but that fact alone does not make it
18 subject to "official notice." Department objected to admission of Respondent's
19 Ex. 3, which purported to be a "partial topography" of Respondent's Lots 6 and
20 7, in Rainbow Heights Subdivision, prepared by an engineering and surveying
21 firm. The objection is now sustained, for the reasons that the document is
22 undated, unsigned, uncertified, and no witness sponsored the document who could
23 testify as to its authenticity and method of preparation.

24 At the start of his case in chief, Respondent's counsel moved to strike
25 Department's allegations with respect to "modification" of the area of the
26 disposal system. The motion was based in large part on Respondent's Ex. 1,

1 which purported to be an approval of a subdivision containing Respondent's
2 property by the City Planning Commission of the city of Brookings in September,
3 1968. Respondent claims that the property involved falls within the provisions
4 of OAR 340-71-030(1)(h), which provide an exception to the prohibition against
5 installation of disposal trenches in filled or modified areas, where a
6 subdivision or lot has been approved by an appropriate governing body prior
7 to January 1, 1974. While Respondent's Ex. 1 was admitted, and was used by
8 witnesses to explain portions of their testimony, the motion to strike is now
9 denied, for the reasons that the exhibit is not certified by the legal
10 custodian, and later testimony by Respondent himself demonstrated that his
11 property was not within the limits of any city.

12 FINDINGS OF FACT

13 1) At all times material herein, Respondent and his wife were the owners
14 of Tax Lot 700 (or 7), the premises containing the sewer system, and adjoining
15 lot, Tax Lot 600 (or 6). Ownership was stipulated by the parties.

16 2) Respondent's premises were not within the city limits of the City
17 of Brookings, Oregon, nor had the lots, or a subdivision containing said lots,
18 been approved by an appropriate governing body prior to January 1, 1974.

19 3) In or about February and March 1974, Respondent bulldozed or scraped
20 away a portion of the premises and soils on Lot 7, and caused fill material
21 to be placed on said lot.

22 4) On or about April 8 and June 3, 1975, Department representatives
23 examined Respondent's premises to determine suitability for installation of a
24 subsurface sewage disposal system.

25 5) On said dates (April 8 and June 3, 1975), Respondent's premises failed
26 to meet Department rules in the following respects: a restrictive layer existed

1 less than thirty inches below the ground surface; the soil in the area for the
2 disposal system had been modified by cut and fill; the setback distance from
3 groundwater supplies was less than one hundred feet from the disposal area;
4 the site of the proposed disposal area contained a slope greater than twenty-
5 five percent. Department's Exs. 1, 3.

6 6) On or about February 17, 1977, Respondent applied for a construction
7 permit for a system to serve a two-bedroom mobile home on Lot 7. On
8 February 18, 1977, Department's agent (a Curry County Sanitarian) approved the
9 application. Department's Ex. 2. The date of approval was stipulated by the
10 parties.

11 7) On or about March 1, 1977, Department notified Respondent in writing
12 that the construction permit "may have been issued incorrectly," and that the
13 permit "may have to be revoked." Department's Ex. 5. The system on Respondent's
14 property had not yet been constructed on March 1, 1977.

15 8) Department's Notice dated March 28, 1977, was received by Respondent
16 on April 5, 1977.

17 9) The subsurface sewage disposal system was constructed by Respondent's
18 contractor in or about the month of June, 1977, on Lot 7.

19 10) The system, as constructed, is in an area where the surface and the
20 soils have been modified by "cutting and filling," and in an area where a
21 restrictive layer exists within thirty (30) inches of the surface of the ground.
22 A restrictive layer is a soil layer which does not allow water entering from
23 above to pass through as rapidly as it accumulates.

24 11) The system, although constructed, has not been connected or used by
25 Respondent.

26 12) Respondent affirmatively alleged in his Request for Hearing that the

1 attempt to revoke the permit by Department was arbitrary and capricious, and
2 not based upon fact.

3 ISSUES

4 1) Does Respondent's property fall within the exemption of subsection
5 (h) of OAR 340-71-030(1), as to filling or soil modification approved prior
6 to January 1, 1974?

7 2) Did Respondent violate the provisions of OAR 340-71-030(1) (h) by
8 installing his system in an area which has been filled or the soil modified?

9 3) Did Respondent violate the provisions of OAR 340-71-030(1) (b) by
10 installing his system in an area where a restrictive layer exists within thirty
11 (30) inches of the ground surface?

12 4) Does Respondent have the burden of proving alleged arbitrary and
13 capricious actions by Department in revoking a permit, if such claims are
14 affirmatively alleged by Respondent?

15 5) Can Department revoke a permit after issuance, and actual construction
16 of a system, if violations of any applicable rule or standard of the Commission
17 are found to exist?

18 CONCLUSIONS OF LAW

19 1) The Commission has jurisdiction over the parties and the subject
20 matter of this proceeding.

21 2) Respondent violated the provisions of OAR Section 340-71-030(1) (b)
22 by constructing a system in soils where there exists a restrictive layer within
23 thirty (30) inches of the ground surface.

24 3) Respondent violated the provisions of OAR 340-71-030(1) (h) by
25 constructing a system in an area which had been filled and the soil modified.

26 4) Department has failed to prove by preponderance of the evidence that

1 there is no adequate replacement or repair area, since Respondent could use
2 portions of both Lot 7 and adjoining Lot 6 which he also owns.

3 5) Respondent has the burden of proving his affirmative allegations that
4 Department's action in revoking Respondent's permit are arbitrary and
5 capricious, and has failed by a preponderance of the evidence to prove such
6 allegations.

7 6) Department may revoke a permit at any time, even after construction,
8 if it finds a violation of any applicable rule, standard, or order of the
9 Commission, pursuant to the provisions of ORS 468.070 (1) (d).

10 OPINION

11 On or about March 1, 1977, Department notified Respondent in writing that
12 the construction permit may have been issued incorrectly, and requested that
13 installation not proceed until further site review. Department's Ex. 5. The
14 disposal system had not yet been installed at that time. Respondent testified
15 that he then engaged an attorney to contact Department concerning the matter,
16 but for approximately three months no response was received. The correspondence
17 is not in evidence, but there is no reason to doubt that this occurred. After
18 waiting for this period, Respondent hired a contractor to excavate a hole for
19 the system's septic tank, but Department's agent halted construction when the
20 excavation was almost complete. After further discussion, Respondent testified
21 that Department's agent stated that he could not stop Respondent from installing
22 his system, but that it could be "condemned" after installation. Respondent
23 stated that this was the procedure he would take, that is, to install the system
24 and then have it checked. If the system did not then comply with rules and
25 regulations, then "condemn." Presumably, the parties were referring to permit
26 revocation, rather than "condemnation" in the usual sense. Respondent, through

1 counsel, attempted to bring Respondent's property within the exception in OAR
2 340-71-030(1) (h), authorizing presently prohibited disposal trenches within
3 areas approved prior to January 1, 1974. However, Respondent, in answer to
4 a question posed by his own counsel, stated that his property was not within
5 a city, but was rural in character, and within the county of Curry. There was
6 no satisfactory evidence that a subdivision, or Respondent's property, had
7 been approved by a County Commission or other appropriate governing body prior
8 to January 1, 1974, to bring it within any exception to Department rules and
9 regulations.

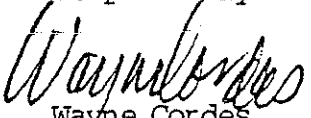
10 Respondent proceeded with construction after he had been notified that
11 the permit may have been improperly issued, and in fact, after he had received
12 Department's Notice of Revocation. The permit was lawfully revoked.

13 FINAL ORDER

14 It is hereby Ordered:

- 15 1) The preceding Evidentiary and other Rulings, Proposed Findings of
16 Fact, and Conclusions of Law are entered herein, and
17 2) The Notice of Intent to Revoke Subsurface Sewage Disposal System
18 Permit heretofore issued to Respondent by the Director under date of March 28,
19 1977, is hereby affirmed.

20 Dated this 13 day of July, 1979.

21 Respectfully submitted,
22 s/s 
23 Wayne Cordes
24 Hearing Officer
25
26

1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
2 OF THE STATE OF OREGON

3 DEPARTMENT OF ENVIRONMENTAL QUALITY)
4 of the STATE OF OREGON,)
5 Department,) No. SS-SWR-77-57
6 v.)
7 Howard Jones,)
8 Respondent.)

ORDER

8 This matter came before the Director through a letter dated March
9 28, 1979, from Respondent's attorney, Michael Henderson, and by memorandum
10 through one of the Department's staff, Van A. Kollias, for an order
11 granting Respondent an extension of time to file its exceptions, arguments
12 and proposed alternative findings, conclusions and order in the above
13 captioned matter, and time for the Department to file an answering brief
14 to Respondent's exceptions, etc.

15 The proposed Order signed by the Commission's Hearing Officer, Wayne
16 Cordes, was withdrawn on March 9, 1979.

17 NOW THEREFORE, pursuant to OAR 340-11-132(4), IT IS HEREBY ORDERED
18 that Respondent be given thirty days following the date of mailing of the
19 Hearing Officer's amended Order in which to file written exceptions, etc.
20 IT IS FURTHER ORDERED that the Department be given thirty days after
21 Respondent's exceptions, etc., are timely filed in which to file an
22 answering brief to Respondent's exceptions, etc.

24 APR 5 1979

25 Date

25 *William H. Young*
26 William H. Young Director
 Department of Environmental Quality

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 71 — DEPARTMENT OF ENVIRONMENTAL QUALITY

(b) For preventing surging of flow through the aeration and settling compartments;

(c) For providing access to each compartment or unit for inspection and maintenance; and

(d) For convenient removal of solids.

(6) It shall be a part of a subsurface or alternative sewage disposal system meeting the approval of the Department.

(7) No permit shall be issued for the installation of any aerobic sewage treatment facility unless the responsibility for operation and maintenance of it and the disposal system of which it is a part is vested in a public entity, such as a city, county, county service district, sanitary authority, or other public entity which the Department determines as having proper statutory authority and adequate resources to carry out such responsibility, or unless other arrangements meeting the approval of the Director have been made which will insure continuous and adequate operation and maintenance of the facility and disposal system. Each permitted installation shall be inspected by the responsible public entity at least every three (3) months and checked for necessary corrective maintenance.

(8) A supply of parts for repair or replacement of all installed units must be locally available for the expected life of the units.

[Publications: The publication(s) referred to or incorporated by reference in this rule is available from the office of Secretary of State or Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 454 & 468

Hist: DEQ 98, f. 9-2-75, ef. 9-25-75; DEQ 124, f. 10-29-76, ef. 11-1-76

Disposal Areas

340-71-030 (1) Disposal Trenches. No disposal trench shall be installed where any of the following conditions are present except as provided in section (2) below:

NOTE: Measurements are to be taken on the downhill side of the test pit.

(a) An impervious layer is less than thirty-six (36) inches below the surface of the ground. A twelve (12) inch separation must be maintained between the impervious layer and the bottom point of the effective sidewall of the disposal trench.

(b) A restrictive layer is less than thirty (30) inches below the surface of the ground. A six (6) inch separation must be maintained between the restrictive layer and the bottom point of the effective sidewall of the disposal trench.

(c) An area where the highest level attained by a permanent water table or permanently perched water table will be within four (4) feet of the bottom point of the effective sidewall of the disposal trench, except in defined areas that have been the subject of a groundwater study and where the Department has determined that degradation of ground water supplies or health hazards would not be caused. Diagram 7A shows an acceptable design where such water table will be five (5) feet or more but less than five and one-half (5-1/2) feet below the surface of the ground. Water table levels may be predicted during periods of dry weather utilizing one of the following criteria:

(A) Where water movement is laterally restricted, mottling consisting of various shades of gray and red specks, splotches, and/or tongues throughout the soil caused by alternated saturation and desiccation, or dark, highly organic layers of grayish low chroma layers may be found at the highest seasonal level of the water table. Some soils including, but not limited to, certain salt affected soils and low iron bearing soils may not show signs of mottling even though they become saturated under laterally restrictive conditions for extended periods of time.

(B) Where water movement is laterally unrestricted, and mottling is not evident, predictions of the highest seasonal

level of the water table where possible shall be based on past observations by the Director or his authorized representative. If such observations have not been made, or are not conclusive, application for a permit shall be denied until appropriate observations can be performed as prescribed in subsection (1)(c)(C) of this section.

(C) Where the Department or its authorized representatives require, water level investigations shall be performed during:

(i) The winter months where mottling is present, and exact confirmation of water level is desired, or where water levels are expected, and no mottling is present or where parent material or other factors may be causing mottling.

(ii) July, August, and September in irrigated areas where elevated ground water levels are expected or where parent materials or other factors may be causing mottling.

(iii) Periods of runoff in artificially drained areas which may be subject to influence from runoff.

(d) An area where the highest level attained by a temporarily perched water table would be less than twenty-four (24) inches below the surface of the ground or would cause temporarily perched ground water to come in contact with the absorption facility's effective sidewall. Water table levels may be predicted during periods of dry weather utilizing criteria set forth in subsections (1)(c)(A), (B), and (C) of this section.

(e) Slope exceeds twenty-five (25) percent or the values in Table 4A.

(f) Where coarse grain material is located within thirty-six (36) inches of the natural ground surface and the installation and utilization of a disposal trench would cause degradation of the quality of public waters. A minimum separation distance of eighteen (18) inches shall be maintained between coarse grained materials and the bottom of the trench. Diagram 7A shows an acceptable design where coarse grain material is thirty (30) or more inches but less than thirty-six (36) inches below the natural ground surface.

(g) An area where an accumulation of surface water will occur for a period of two (2) consecutive weeks or longer.

(h) An area that has been filled or the soil has been modified, except in subdivisions or lots approved by the appropriate governing body prior to January 1, 1974, lots or parcels in rural zoning classifications designated by the county and approved by the Department, or individual lots for repair of existing systems, provided in the case of the aforesaid subdivisions or lots approved prior to January 1, 1974, the native soil and fill material shall consist of weakly structured soils such as sand, sandy loam, or loamy sand.

NOTE: Any site filled or modified must meet all provisions of these rules prior to and after filling or modification.

(i) On unstable land forms or areas influenced by unstable land forms.

(j) An area that will be covered by asphalt or concrete, or where vehicular traffic will be allowed to drive over the field after installation.

(k) An area subjected to excessive saturation due to, but not limited to, artificial drainage of ground surfaces, driveways, roads, and building roof drains.

(2) Rural Areas. For single family dwellings or other equivalent sewage flow uses permitted by the zone proposed to be constructed in certain rural zoning classifications designated by the county and approved by the Department, the installation of a disposal trench shall be considered and may be allowed where the soil profile depth to an impervious layer is less than thirty-six (36) inches, where the soil profile depth to a restrictive layer is less than thirty (30) inches, where temporarily perched water would be within twenty-four (24) inches of ground surface or would come into contact with the disposal trench, where permanently perched ground water or the permanent water table would be less than four (4) feet below



Environmental Quality Commission

Victor Atiyeh
Governor

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Agenda Item No. L, October 19, 1979, EQC Meeting
Informational Report: Status of Research on the
Public Health Effects of Field Burning Smoke

Background

This report is presented at the request of the Environmental Quality Commission (EQC) for the purpose of informing the Commission and the general public on the progress being made to study the public health effects of field burning smoke. This is intended as a "preliminary" status report since additional information from several projects, both planned and in progress, are not yet available at this time. A more complete update will be presented at a later date, along with recommendations for further actions.

Introduction

At the present time there is very little definitive information on the direct long-term and short-term effects of field burning smoke on public health. The complexities and associated costs involved in studying this specific environmental health issue have severely limited the extent of major research efforts in this area to date. The absence of Federal fine particulate standards for use as a research guideline, combined with a lack of definitive information in the scientific literature on the health effects of open burning, or even fine particulate pollutants in general, have necessitated a deliberate approach by the Department in addressing this health effects problem, one which has long been the subject of considerable speculation.

This lack of information should not be taken to imply that significant effects from field burning do not occur; registered complaints alone attest to such problems. However, the tasks of 1) identifying the effects from field burning which do occur, 2) quantifying the health risks to various segments of the population, and then 3) putting these risks in perspective with the risks presented by exposure to other sources, in order to develop an effective control strategy, is a necessary though involved process of major proportion. Consequently, research to date should be considered preliminary, inconclusive, and, at best, only useful as technical support in directing further analysis.



Contains
Recycled
Materials

Research investigations by the Department, with the advice and assistance of the Advisory Committee on Field Burning and its Health Effect Subcommittee, have been directed at two levels:

1. Surveying, through literature review and discussions with various agencies, researchers, and physicians, the current state-of-the-art of health effects research, the range of available research alternatives, and the technical criteria necessary for comprehensive analysis of the field burning health effects question; and
2. Gathering of baseline data concerning
 - a) the characterization of the physical/elemental properties of field burning and slash burning smoke, and smoke intrusions,
 - b) the mutagenicity of field burning smoke particulate, and
 - c) regional differences in public (respiratory) health through retrospective analysis of available statewide lung function data.

Findings from these investigations are summarized below, along with a discussion of problems which have been encountered and of additional projects which are planned or currently underway.

Research Findings

Prior to last year, very little formal work had been accomplished in assessing the effects of field burning on either air quality or public health. Evidence primarily consisted of subjective information derived from physician surveys, testimonials, and registered complaints.

In 1978, the Department initiated a formal and intensive program for the study of field burning and its effects on air quality in the Willamette Valley. The primary emphasis of this work was to determine the impact of field burning (as well as slash burning) on the attainment of Federal Ambient Air Quality Standards throughout the Valley and in the Eugene/Springfield non-attainment area in particular. A variety of additional information has been obtained concurrently with that effort, however, which contributes to our understanding of the public health risks of field burning and, to a lesser extent, slash burning. Selected findings from these studies are as follows:

- Field burning smoke intrusions are generally localized and of short duration. Because of this, and the particle-size characteristics of smoke, 24-hour total suspended particulate (TSP) measurements do not readily detect the impact of a smoke intrusion.
- Field/slash burning emissions consist primarily of particulate in the fine size range; approximately 75-95 percent by weight are less than 2.2μ . The mass median diameter (MMD) of field burning smoke, as measured within the plume and downwind at ground level, is approximately $.5\mu$. This size is within the range of maximum alveolar (lung) deposition.

- Vegetative open burning during the summer months contributes in the range of 25 percent to local fine particulate levels, with evidence to indicate that the relative contribution from slash burning exceeds that of field burning in the higher population centers.
- Particulate derived from soils comprises approximately one-half of the total suspended particulate (TSP) levels in the Valley; however, the role of field burning in the enhancement of this soils component is not known.
- Rough estimates of the maximum potential population exposure to smoke from open field or slash burning can be significant, up to 300,000 persons or more on a given day.
- Management of the techniques and conditions under which burning is permitted can significantly affect the location, intensity, and duration of ground level smoke intrusions.
- The concentrations of polynuclear organic material (POM) in field burning smoke have been measured, both as emissions from the source and as ambient levels downwind. Levels emitted from the field are high, as would be expected under combustion conditions. Ambient POM levels downwind (Eugene and Coburg) under field/slash burn impact conditions, however, were found to be relatively low or below detectable limits. POM are of considerable interest from a health perspective because of their reported role as cancer-causing agents.

In addition to the above findings, the Department also submitted several filter samples to toxicologists at the University of California at Berkeley for analysis of the mutagenicity of ambient levels of field burning smoke particulate. The mutagenic activity of a substance is considered to be strongly correlated to its carcinogenicity. The samples were collected from Eugene and Springfield on days representing both intrusion and non-intrusion conditions. Results from these tests indicated little, if any, mutagenic activity at the doses tested. Though informative, these findings should not be considered definitive evidence until additional testing is accomplished.

Finally, in an effort to scan the public health record for any obvious patterns or glaring dissimilarities in respiratory health between residents of different regions of the state, the Department initiated a statistical analysis of some data made available through the Oregon Lung Association. These data consisted of lung-function (spirometric) measurements collected by the Association during its five-year Christmas Seal Breathmobile Program. The Breathmobile toured various parts of the state offering free spirometric tests to the public on a voluntary basis. By design, different regions of the state were delineated on a geographical/airshed basis for the study, and the respiratory data for residents of these regions were then compared.

As would be expected, respiratory function was found to decline with age and with increased smoking intensity. Interestingly, though, for non-smokers, average lung function measurements differed significantly between regions; those who were tested from the mid-Willamette Valley region demonstrated significantly higher lung-function values (and presumably better respiratory health) than those tested from other areas, when the effects of age, sex, and height were accounted for.

Now, it must be emphasized that the intent of this retrospective analysis was not to define, in absolute terms, the extent of the long-term impact of field burning, or any other pollution source, on public health; the base-data was inadequate for anything more than simply a crude and cursory view of existing public health patterns. Questions still exist as to the comparability of the test groups representing each region, and the role of regional climatology and its potential overriding effect on respiratory performance. The Department is currently reviewing the original data in an effort to address some of these concerns, however, it is unlikely most can be resolved. Therefore, the results from this study should be viewed with a great deal of caution and in no way should be considered as evidence that the health risks from long-term exposures to field burning smoke are negligible or non-existent.

Discussion

The findings from projects described above can only be considered preliminary, and therefore additional study is needed. As with any new area of research, initial efforts are directed more to a review of existing and readily accessible information, however limited, than to developing new and costly projects which may subsequently prove to be repetitious of previous work. Retrospective approaches, such as the Breathmobile study described above, contribute to the baseline data and to our general understanding of the field burning health effects issue. They help highlight the complexities of this environmental health problem and some of the technical and methodological considerations which must be made in studying it.

However, at best, these kinds of approaches offer only a broad view of some very specific interactions. The staff had hopes that these preliminary retrospective analyses would at least serve as a basis for supporting or denying the need for an intensive prospective research program, however, this has not been the case from accomplishments to date. Additional preliminary research projects are planned for the near future (see Director's Recommendations), though it is likely they will serve more to improve and refine our present data-base than to resolve the health effects question per se. In fact, permanent resolution of this issue, if indeed it is possible, will probably require a long-term, intensive, and coordinated investigative effort.

In addition to planning and implementing preliminary studies, staff has reviewed background literature and initiated discussions with various researchers, physicians, and public health specialists concerning the range of research alternatives which are available and would be most effective in studying the health effects of field burning.

A Health Effects Research Subcommittee to the Advisory Committee on Field Burning has been formed to provide staff with professional expertise in reviewing and directing research in this area. Discussions to date have been useful in helping to identify specific components which will be necessary for a successful research program. These are discussed below.

Critical to any environmental health research effort is the determination of which kinds of health effects and, correspondingly, for an epidemiological approach, which individuals will be studied. Those with chronic respiratory ailments may find their conditions seriously exacerbated at pollution levels which have no detectable effect on less sensitive or normal subjects. The method of detecting these effects, whether it be through questionnaires or monitoring hospital records, for example, will also affect the reliability of the results. In addition, not only must the exposure of the study group to specified levels of the particular pollutant be verified, but exposures to indoor pollutants, both at work or at home, must also be controlled.

Aside from these general considerations, close consideration must also be given to the unique problems presented to field burning which have not typically been considered in traditional health effects research. Of foremost concern, for example, is the potential for bias due to the visibility of field burning activity, and the considerable public attention and controversy it attracts each summer. Care must be taken that health effects attributed to field burning be independently verified through correlation with records of burning activity and measured smoke levels. Secondly, because field burning is only a seasonal activity, and its intrusions are generally transient in nature, it is extremely difficult to detect and distinguish its direct chronic (long-term) effects from the effects of other sources and factors to which individuals are typically exposed, both during the summer and year-round. If an epidemiological approach is implemented, such as selecting and monitoring the health of small, sample populations during the field burning season, it may be difficult to establish effective control and study areas which are comparable, but differ only in the amount of smoke intrusions which occur. Continued changes in recent years in the smoke management program tend to alter the distribution of smoke from field burning within the Valley such that areas which have historically received smoke are now better protected. As a result, it may be difficult to obtain enough reliable impact information on the effects of this single source during a single season of testing.

Ultimately, a "dose-response" relationship between the intensity of an intrusion and the intensity of the effect will be needed in order to develop and operate an effective control program. It should then be the goal of the field burning health effects research program to provide a comprehensive and reliable understanding of the health related impacts which do occur, and which is suitable for determining both "acceptable" levels of effect as well as effective control standards. In light of this goal, the following objectives are recognized as the minimum required for a successful research program.

- Consideration of the effects of other major fine particulate sources, such as slash burning, backyard burning, and residential wood heating, in addition to field burning.

- Documentation of both the acute (short-term) and chronic (long-term) public health effects resulting from smoke exposure. Studies should be designed so that future follow-up analysis can be made to check progress and trends.
- Consideration of the effects on various segments of the public, including both "normal" and "sensitive" individuals.
- Documentation of economic costs associated with the public health effects, such as the increased use of health services and medications, loss of income from work absences, and reduced activities resulting from illness.

Based on these preliminary findings and discussions of current informational needs, four specific research activities are currently being developed and planned for implementation in the coming year:

Voluntary Health Questionnaire: staff is currently developing a voluntary health questionnaire which can be administered to individuals who register air pollution complaints specifically related to a health problem or effect. The questionnaire would be designed to document information pertinent to determining the duration and intensity of symptoms which are typically encountered, and the actions taken in response to these symptoms. Personal background data would also be taken to help distinguish which segments of the population are affected, to what degree, and where they live.

Because of the additional staff time this would require during high complaint periods, it may be necessary to administer the questionnaire only to a proportion of the complainants on any given day. Staff plans to implement it on a trial basis this fall to determine its feasibility.

We would propose to use this information as a guide in designing future research, as well as an informal and qualitative means of evaluating the effectiveness of the control program. It may also improve our understanding of the kinds of activities and conditions most responsible for producing public complaints. The information currently recorded when a complaint is filed is of limited value as an analysis tool.

In the broader perspective the questionnaire could ultimately serve to stimulate interest in developing a permanent public health monitoring network within the State for use by a variety of State and local health agencies.

Mutagenicity Testing: staff is considering additional testing of smoke-impacted ambient filter samples for determination of the carcinogenicity of field burning and slash burning smoke. Samples representing a greater range of smoke impact conditions should be investigated with consideration given to new testing procedures which have recently been developed.

Hospitalization Study: staff has been in contact with various hospitals in the south and east portions of the Willamette Valley in an attempt to develop a retrospective analysis of hospital admissions data (hospitalization rates) for correlation with selected periods of both smoke intrusion and non-intrusion conditions. Information derived from this kind of approach will of course be limited to only those effects severe enough to require hospitalization, in most cases resulting from the exacerbation of an existing health problem. However, it will provide a view of the impact on the most "sensitive" individuals under the most extreme conditions. Unfortunately, records of visits to private physicians are not readily available, though this would probably reflect more accurately the health impacts which typically occur.

Tentative Long-Range Plan: once a substantial amount of information has been gained from these and possibly other preliminary research projects, both public and professional input should be sought to evaluate the need for further, more intensive research. If necessary, a health effects workshop involving the participation of various agencies and experts in the field of air pollution health effects research could be arranged for the purpose of refining a detailed long-range study plan. Cost estimates for various research options could also be determined. Of course, designing and implementing a major epidemiological research project would require considerable time, coordination, and funding, with assistance from a variety of sources other than field burning fees (cost estimates of such a project are in the range of three-fourths to one and one-half million dollars.)

Director's Recommendation

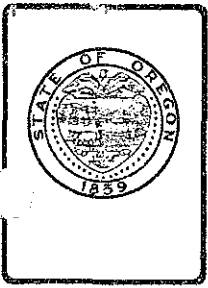
Based upon the preliminary findings presented above and the discussion of current informational needs, it is recommended that the Commission:

- (1) Concur in the proposed course of action to implement the four specific research activities outlined above; and,
- (2) Direct the staff to report back to the Commission at a later date on the progress and findings from these preliminary research projects, with recommendations for further action to be made at that time.



WILLIAM H. YOUNG

SK0:pas
10/4/79
686-7837



Victor Atiyeh
Governor

Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

TO: Environmental Quality Commission DATE: October 5, 1979

FROM: William H. Young, *W. H. Young*
Director DEQ

SUBJECT: Field Burning PSD/Offset Work Plan Progress Report

Background

At the May 25, 1979, Environmental Quality Commission meeting, the Commission considered a petition requesting the development of new rules to require offsets for increased field burning emissions allowed by the passage of Senate Bill 472A. The commission denied the petition and directed the staff to: (a) develop a work plan by August 1, 1979; and (b) to report on progress made toward implementing the schedule by no later than October 1, 1979. This memo has been prepared in response to the Commission's work progress report request.

Work Plan Schedule

The August 9th work plan called for the following progress to be made prior to October 1st:

1. Completion of the initial work plan schedule.

This task was completed on August 9, and distributed to the Commission.

2. Completion of Rule Clarification Tasks.

On June 18, 1979, the U. S. Court of Appeals for the District of Columbia Circuit overturned the PSD regulation adopted by EPA. Because of the court decision, the proposed rules are substantially different than those promulgated earlier in that they clarify questions regarding establishment of the PSD baseline date, the definition of stationary sources subject to Federal PSD and Offset Regulations, and other questions.

The staff has reviewed the proposed regulation as it relates to field burning and has resolved several issues that form the basis for the impact analysis work. A memo discussing these issues and the staff's interpretation of the proposed rule is now under review by legal counsel. In summary, the staff opinion is as follows:



Contains
Recycled
Materials

- (A) Field Burning is not included within the definition of major stationary source for purposes of PSD or Emission Offset review. Increases in field burning emissions after the baseline date must, however, be counted against PSD increments as do increases from other sources.
- (B) The PSD baseline date will be the date upon which EPA received the first complete PSD application (after August 7, 1977) within the Oregon Portion of the Portland Interstate AQCR. It appears that this will be July, 1978.
- (C) Although the Federal Emission Offset rule does not appear to apply to field burning under the new definition, an analysis of the particulate, carbon monoxide, and ozone impact on nonattainment areas must still be completed to demonstrate that control strategies can achieve compliance with standards with the additional field burning emissions. Offsets would be required only to the extent necessary to mitigate violations of; (a) ambient air standards (for particulate, ozone, or carbon monoxide); (b) PSD increments (for particulate and sulfur dioxide) or; (c) to be consistent with adopted standard attainment/maintenance strategies.

The staff's interpretation of the proposed rules, SIP requirements and the Department program needs means that the analysis phase of the work plan will have to address the following issues relative to the increase in field burning impact:

- Amount of PSD increment use for annual and 24-hour periods in Class I and Class II areas for TSP and SO₂.
- Degree of TSP, CO, and O₃ impact on Portland, Eugene-Springfield, and Salem.
- Impact of increase emissions on the "Reasonable Further Progress" projection portion of the Portland and Eugene-Springfield AQMA TSP strategies. Results of this analysis will have to be included in the Eugene-Springfield TSP SIP strategy and will likely delay the January 1, 1980, completion date at least two to three months.
- If offsets are required to mitigate impacts, this analysis must indicate the potential sources and associated impact offset, identification of costs and equity of the alternatives, legal authority and enforceability.

3. Progress Toward Completion of the Impact Analysis.

The Department's impact analysis must be patterned after the proposed EPA rule since the court decision declared that definitions included in the earlier EPA rule (and Oregon's PSD rule) must be revised. The staff will have to make revisions to the State PSD Rule to comply with the ruling.

The basis of the technical analysis of the impact has been established and documented in an Appendix to Field Burning SIP revisions submitted to EPA on September 14, 1979. The approach is based on identifying field burning impacts during the 1978 season, relating the impact to actual acreage, and scaling the impact per acre estimate up to 250,000 acres. Using this technique, estimates of 24-hour and annual impacts will be prepared for Class I and Class II areas.

Progress toward completion of the impact analysis is not proceeding as quickly as estimated due to delay in release of the newly proposed EPA PSD rule. Completion is expected in October.

4. Progress in Identifying Potential Sources of Emission Offset.

The proposed PSD Rule discusses EPA's policy that potential emission offsets meet the following requirements: (a) they must be enforceable under the SIP; (b) the offset must be for the same pollutant as the emission increase and have comparable impacts to health and welfare; (c) the offsetting emission must not have been already committed to in the SIP; and (d) the air quality need not improve or stay the same at every location affected by the increased emissions, but on balance, the affected area should not be adversely impacted.

Given these guidelines and information at hand on source impacts within rural portions of the Willamette Valley most effected by field burning, it appears that slash burning may be an important potential offset. Further analysis of the data must be conducted to evaluate other sources meeting the above criteria in urban, nonattainment areas.

Summation

1. On May 25th, the EQC directed the staff to report on progress made toward completion of field burning PSD-Emission Offset tasks detailed in the August 9th workplan.
2. The staff has completed the first two tasks on schedule, has devised the methods to be used to determine the impact of the increased emissions and has developed guidelines to identify potential sources of emission offsets.
3. Work on the impact analysis phase has been delayed pending receipt of the proposed PSD rule, and requirements to include the impact analysis within the Eugene-Springfield TSP strategy will likely delay completion of the project two to three months. Potential sources of offset work is on schedule.

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4. Staff progress is only slightly behind the anticipated schedule at this time, but future delays until March, 1980, are likely. Avoidance of further delays in the schedule will require additional staff resources which have been provided. Should legislative authority to regulate new sources be needed, a substantial delay in rule development could occur. Since the analysis is based on the proposed PSD rule, future changes reflected in the adopted rule could also delay completion.

William H. Young
Director

Attachment

AA2004.2

Young

LAW OFFICES

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October 17, 1979

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State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
R E C E I V E D
OCT 19 1979

OFFICE OF THE DIRECTOR

Dear Joe:

As you know, this firm represents the Metropolitan Waste-water Management Commission. As you are probably also aware, the Commission is vitally concerned with the upcoming decision by the Environmental Quality Commission on the recommendation of the Department of Environmental Quality concerning allocation of funds under the Clean Water Act of 1977 for construction of municipal wastewater treatment works. Our office has done a considerable amount of research into the background of the priority list and funding system as established by the Environmental Protection Agency Regulations for the use of EPA grant funds. We have also compared the proposed priority list from the Department of Environmental Quality with what we believe to be the controlling EPA regulations.

As a result of this analysis, we have concluded that the proposed funding system is contrary to the EPA regulations concerning the establishment of priority lists and funding for local projects. Basically what has happened is DEQ has established a priority list. DEQ has, however, in allocating the funds for fiscal year 1980 and beyond, skipped around on its priority list and has not funded the projects in relationship to their priority on the list to the extent that each of the municipalities can use the funds available during the current fiscal year. The net effect of this process is that lower priority projects are being funded and will be completed before higher priority projects.

We believe this process to be directly contrary to 40 CFR 35.915 which is the Environmental Protection Agency Regulations on establishment of priority lists. It is our belief that once the priority list is completed, the State is required to allocate funds starting with priority project number one to the extent that they can use the funds during the current fiscal year and to the extent they cannot, move on to priority project number two and so forth down the list. In fact, it is our belief that we would be entitled to seek redress in Federal Court to compel the

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Mr. Joe B. Richards, Chairman

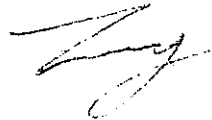
State to comply with the funding requirements of the regulation.

I enclose a copy of 40 CFR 35.915 for your review. I would suggest you review this matter and possibly investigate whether or not the DEQ recommendation complies with the enclosed regulations. It would appear also to be prudent for the Environmental Quality Commission to delay any action concerning the DEQ recommendation until this matter has been resolved.

I would be pleased to discuss this matter further with representatives of EQC, DEQ or the Attorney General's Office.

Very truly yours,

LIVELY & WISWALL



Laurence E. Thorp

LET:jd
Enclosure
cc: William V. Pye
Arl Altman

RULES AND REGULATIONS

State	Percentage
Florida.....	3.8366
Georgia.....	1.9418
Hawaii.....	.7928
Idaho.....	.4952
Illinois.....	5.1943
Indiana.....	2.7678
Iowa.....	1.2953
Kansas.....	.8803
Kentucky.....	1.4618
Louisiana.....	1.2625
Maine.....	.7495
Maryland.....	2.7777
Massachusetts.....	2.9542
Michigan.....	4.1306
Minnesota.....	1.8691
Mississippi.....	.9660
Missouri.....	2.4957
Montana.....	.3472
Nebraska.....	.5505
Nevada.....	.4138
New Hampshire.....	.8810
New Jersey.....	3.5715
New Mexico.....	.3819
New York.....	10.5209
North Carolina.....	1.9808
North Dakota.....	.3107
Ohio.....	6.4655
Oklahoma.....	.9279
Oregon.....	1.2974
Pennsylvania.....	4.3516
Rhode Island.....	.5252
South Carolina.....	1.1766
South Dakota.....	.3733
Tennessee.....	1.5486
Texas.....	4.3634
Utah.....	.4457
Vermont.....	.3845
Virginia.....	1.9602
Washington.....	1.7888
West Virginia.....	1.7903
Wisconsin.....	1.9503
Wyoming.....	.3003
Guam.....	.0744
Puerto Rico.....	1.1734
Virgin Islands.....	.0378
American Samoa.....	.0616
Trust Territory of Pacific.....	.1530
Total.....	100.00

(b) Based on paragraph (a), and table 4 of the committee print, the following authorizations are allotted among the States subject to the limitations of paragraph (c) of this section:

State	For fiscal year 1978	For each of the fiscal years 1979, 1980, 1981
Alabama.....	\$57,789,000	\$64,210,000
Alaska.....	19,057,500	21,175,000
Arizona.....	34,905,500	33,785,000
Arkansas.....	33,808,500	37,565,000
California.....	357,804,000	397,560,000
Colorado.....	41,341,500	45,935,000
Connecticut.....	49,824,000	55,360,000
Delaware.....	17,982,000	19,980,000
District of Columbia.....	14,368,500	15,965,000
Florida.....	172,647,000	191,830,000
Georgia.....	87,381,000	97,090,000
Hawaii.....	35,676,000	39,640,000
Idaho.....	22,284,000	24,760,000
Illinois.....	233,743,500	259,715,000
Indiana.....	124,551,000	138,390,000
Iowa.....	58,288,500	64,765,000
Kansas.....	39,613,500	44,015,000
Kentucky.....	65,781,000	73,090,000
Louisiana.....	56,812,500	63,125,000
Maine.....	33,727,500	37,475,000
Maryland.....	124,996,500	138,885,000
Massachusetts.....	132,939,000	147,710,000
Michigan.....	185,877,000	206,530,000
Minnesota.....	84,109,500	93,455,000
Mississippi.....	43,470,000	48,300,000
Missouri.....	112,306,500	124,785,000

State	For fiscal year 1978	For each of the fiscal years 1979, 1980, 1981
Montana.....	15,624,000	17,360,000
Nebraska.....	24,772,500	27,525,000
Nevada.....	18,621,000	20,690,000
New Hampshire.....	39,645,000	44,050,000
New Jersey.....	160,717,500	178,575,000
New Mexico.....	17,185,500	19,095,000
New York.....	477,940,500	531,045,000
North Carolina.....	89,136,000	99,040,000
North Dakota.....	13,981,500	15,535,000
Ohio.....	290,947,500	323,275,000
Oklahoma.....	41,755,500	46,395,000
Oregon.....	58,383,000	64,870,000
Pennsylvania.....	196,272,000	218,080,000
Rhode Island.....	23,634,000	26,260,000
South Carolina.....	52,947,000	58,830,000
South Dakota.....	16,798,500	18,665,000
Tennessee.....	69,687,000	77,430,000
Texas.....	196,353,000	218,170,000
Utah.....	20,056,500	22,285,000
Vermont.....	17,302,500	19,225,000
Virginia.....	88,209,000	98,010,000
Washington.....	79,596,000	88,440,000
West Virginia.....	80,563,500	89,515,000
Wisconsin.....	87,763,500	97,515,000
Wyoming.....	13,513,500	15,015,000
Guam.....	3,348,000	3,720,000
Puerto Rico.....	52,803,000	58,670,000
Virgin Islands.....	1,701,000	1,890,000
American Samoa.....	2,772,000	3,080,000
Trust Territory of the Pacific Islands.....	6,885,000	7,650,000
Total.....	4,500,000,000	5,000,000,000

(c) The authorizations in paragraph (b) of this section depend on appropriation. Therefore, the Regional Administrator may not obligate any portion of any authorization for a fiscal year until a law is enacted appropriating that fiscal year. If sums appropriated are less than the sums authorized for a fiscal year, EPA will apply the percentages in paragraph (a) of this section to distribute all appropriated sums among the States, and promptly will notify each State of its share. The Regional Administrator may not obligate more than the State's share of appropriated sums.

(d) If supplementary funds are appropriated in any fiscal year under section 205(e) of the Act to carry out the purposes of this paragraph, no State shall receive less than one-half of 1 percent of the total allotment among all States for that fiscal year, except that in the case of Guam, the Virgin Islands, American Samoa, and the Trust Territories not more than thirty-three one-hundredths of 1 percent of the total allotment shall be allotted to all four of those jurisdictions. If for any fiscal year the amount appropriated to carry out this paragraph is less than the full amount needed, the following States will share in any funds appropriated for the purposes of this paragraph in the following percentages, drawn from the note to table 3 of committee print numbered 95-30 of the Committee on Public Works and Transportation of the House of Representatives:

State	Percentage
Alaska.....	5.4449
Delaware.....	7.1459
District of Columbia.....	12.8612
Idaho.....	.3416
Montana.....	10.8755
Nevada.....	6.1352
New Mexico.....	8.4057
North Dakota.....	13.4733
South Dakota.....	9.0178
Utah.....	3.8648
Vermont.....	8.2206
Wyoming.....	14.2135
Total.....	100.00

§ 35.912 Delegation to State agencies.

EPA's policy is to maximize the use of staff capabilities of State agencies. Therefore, in the implementation of the construction grant program, optimum use will be made of available State and Federal resources. This will eliminate unnecessary duplicative reviews of documents required in the processing of construction grant awards. Accordingly, the Regional Administrator may enter into a written agreement, where appropriate, with a State agency to authorize the State agency's certification of the technical or administrative adequacy of specifically required documents. The agreement may provide for the review and certification of elements of: (a) Facilities plans (step 1), (b) plans and specifications (step 2), (c) operation and maintenance manuals, and (d) such other elements as the Regional Administrator determines may be appropriately delegated as the program permits and State competence allows. The agreement will define requirements which the State will be expected to fulfill as part of its general responsibilities for the conduct of an effective preaward applicant assistance program; compensation for this program is the responsibility of the State. The agreement will also define specific duties regarding the review of identified documents prerequisite to the receipt of grant awards. A certification agreement must provide that an applicant or grantee may request review by the Regional Administrator of an adverse recommendation by a State agency. Delegation activities are compensable by EPA only under section 106 of the Act or subpart F of this part.

§ 35.915 State priority system and project priority list.

Construction grants will be awarded from allotments according to the State priority list, based on the approved State priority system. The State priority system and list must be designed to achieve optimum water quality management consistent with the goals and requirements of the Act.

(a) *State priority system.* The State priority system describes the methodology used to rate and rank projects that are considered eligible for assistance. It also sets forth the administrative, management, and public participation procedures required to develop and revise the State project priority list. In developing its annual priority list, the State must consider the construction grant needs and priorities set forth in certified and approved State and areawide water quality management (WQM) plans. The State shall hold a public hearing before submission of the priority system (or revision thereto). Before the hearing, a fact sheet describing the proposed system (including rating and ranking criteria) shall be distributed to the public. A summary of State responses to public comment and to any public hearing testimony shall be prepared and included in the priority system submission. The Regional Administrator shall review and approve the State priority system for procedural completeness, insuring that it is designed to obtain compliance with the enforceable requirements of the Act as defined in § 35.905. The Regional Administrator may exempt grants for training facilities under section 109(b)(1) of the Act and § 35.930-1(b) from these requirements.

(1) *Project rating criteria.* (i) The State priority system shall be based on the following criteria:

- (A) The severity of the pollution problem;
 - (B) The existing population affected;
 - (C) The need for preservation of high quality waters; and
 - (D) At the State's option, the specific category of need that is addressed.
- (ii) The State will have sole authority to determine the priority for each category of need. These categories comprise mutually exclusive classes of facilities and include:
- (A) Category I—Secondary treatment;
 - (B) Category II—More stringent treatment;
 - (C) Category IIIA—Infiltration/inflow correction;
 - (D) Category IIIB—Sewer system replacement or major rehabilitation;
 - (E) Category IVA—New collectors and appurtenances;
 - (F) Category IVB—New interceptors and appurtenances; and
 - (G) Category V—Correction of combined sewer overflows.

(iii) Step 2, step 3 and step 2+3 projects utilizing processes and techniques meeting the innovative and alternative guidelines in appendix E of this part may receive higher priority. Also 100 percent grants for projects that modify or replace malfunctioning treatment works constructed with an

85 percent grant may receive a higher priority.

(iv) Other criteria, consistent with these, may be considered (including the special needs of small and rural communities). The State shall not consider the project area's development needs not related to pollution abatement, the geographical region within the State, or future population growth projections.

(2) *Criteria assessment.* The State shall have authority to determine the relative influence of the rating criteria used for assigning project priority. The criteria must be clearly delineated in the approved State priority system and applied consistently to all projects. A project on the priority list shall generally retain its priority rating until an award is made.

(b) *State needs inventory.* The State shall maintain a listing, including costs by category, of all needed treatment works. The most recent needs inventory, prepared in accordance with section 516(b)(1)(B) of the Act, should be used for this purpose. This State listing should be the same as the needs inventory and fulfills similar requirements in the State WQM planning process. The State project priority list shall be consistent with the needs inventory.

(c) *State project priority list.* The State shall prepare and submit annually a ranked priority listing of projects for which Federal assistance is expected during the 5-year planning period starting at the beginning of the next fiscal year. The list's fundable portion shall include those projects planned for award during the first year of the 5-year period (hereinafter called the funding year). The fundable portion shall not exceed the total funds expected to be available during the year less all applicable reserves provided in § 35.915-1 (a) through (d). The list's planning portion shall include all projects outside the fundable portion that may, under anticipated allotment levels, receive funding during the 5-year period. The Administrator shall provide annual guidance to the States outlining the funding assumptions and other criteria useful in developing the 5-year priority list.

(1) *Project priority list development.* The development of the project priority list shall be consistent with the rating criteria established in the approved priority system, in accordance with the criteria in paragraph (a)(1) of this section. In ranking projects, States must also consider the treatment works and step sequence, the allotment deadline, total funds available, and other management criteria in the approved State priority system. In developing its annual priority list, the State must consider the construction grant needs and priorities set forth in

certified and approved State and areawide WQM plans. The Regional Administrator may request that a State provide justification for the rating or ranking established for specific project(s).

(2) *Project priority list information.* The project priority list shall include the information for each project that is set out below for projects on the fundable portion of the list. The Administrator shall issue specific guidance on these information requirements for the planning portion of the list, including phase-in procedures for the fiscal year 1979 priority planning process.

- (i) State assigned EPA project number;
 - (ii) Legal name and address of applicant;
 - (iii) Short project name or description;
 - (iv) Priority rating and rank of each project, based on the approved priority system;
 - (v) Project step number (step 1, 2, 3, or 2+3);
 - (vi) Relevant needs authority/facility number(s);
 - (vii) NPDES number (as appropriate);
 - (viii) Parent project number (i.e., EPA project number for predecessor project);
 - (ix) For step 2, 3, or 2+3 projects, indication of alternative system for small community;
 - (x) For step 2, 3, or 2+3 projects, that portion (if any) of eligible cost to apply to alternative techniques;
 - (xi) For step 2, 3, or 2+3 projects, that portion (if any) of eligible cost to apply to innovative processes;
 - (xii) For step 3 or 2+3 projects, the eligible costs in categories IIIB, IV, and V (see § 35.915(a)(1)(ii));
 - (xiii) Total eligible cost;
 - (xiv) Date project is expected to be certified by State to EPA for funding;
 - (xv) Estimated EPA assistance (not including potential grant increase from the reserve in § 35.915-1(b)); and
 - (xvi) Indication that the project does or does not satisfy the enforceable requirements provision, including (as appropriate) funding estimates for those portions which do not meet the enforceable requirements of the Act.
- (d) *Public participation.* Before the State submits its annual project priority list to the Regional Administrator, the State shall insure that adequate public participation (including a public hearing) has taken place as required by subpart G of this part. Before the public hearing, the State shall circulate information about the priority list including a description of each proposed project and a statement concerning whether or not it is necessary to meet the enforceable requirements of the Act. The information on the

proposed priority list under paragraph (c)(2) of this section may be used to fulfill these requirements. This public hearing may be conducted jointly with any regular public meeting of the State agency. The public must receive adequate and timely statewide notice of the meeting (including publication of the proposed priority list) and attendees at the meeting must receive adequate opportunity to express their views concerning the list. Any revision of the State priority list (including project bypass and the deletion or addition of projects) requires circulation for public comment and a public hearing unless the State agency and the Regional Administrator determine that the revision is not significant. The approved State priority system shall describe the public participation policy and procedures applicable to any proposed revision to the priority list.

(e) *Submission and review of project priority list.* The State shall submit the priority list as part of the annual State program plan under subpart G of this part. A summary of State agency response to public comment and hearing testimony shall be prepared and submitted with the priority list. The Regional Administrator will not consider a priority list to be final until the public participation requirements are met and all information required for each project has been received. The Regional Administrator will review the final priority list within 30 days to insure compliance with the approved State priority system. No project may be funded until this review is complete.

(f) *Revision of the project priority list.* The State may modify the project priority list at any time during the program planning cycle in accordance with the public participation requirements and the procedures established in the approved State priority system. Any modification (other than clerical) to the priority list must be clearly documented and promptly reported to the Regional Administrator. As a minimum, each State's priority list management procedure must provide for the following conditions:

(1) *Project bypass.* A State may bypass a project on the fundable portion of the list after it gives written notice to the municipality and the NPDES authority that the State has determined that the project to be bypassed will not be ready to proceed during the funding year. Bypassed projects shall retain their relative priority rating for consideration in the future year allotments. The highest ranked projects on the planning portion of the list will replace bypassed projects. Projects considered for funding in accordance with this provision

must comply with paragraph (g) of this section.

(2) *Additional allotments.* If a State receives any additional allotment(s), it may fund projects on the planning portion of the priority list without further public participation if:

(i) The projects on the planning portion have met all administrative and public participation requirements outlined in the approved State priority system; and

(ii) The projects included within the fundable range are the highest priority projects on the planning portion.

If sufficient projects that meet these conditions are not available on the planning portion of the list, the State shall follow the procedures outlined in paragraph (e) of this section to add projects to the fundable portion of the priority list.

(3) *Project removal.* A State may remove a project from the priority list only if:

(i) The project has been fully funded;

(ii) The project is no longer entitled to funding under the approved priority system;

(iii) The Regional Administrator has determined that the project is not needed to comply with the enforceable requirements of the Act; or

(iv) The project is otherwise ineligible.

(g) *Regional Administrator review for compliance with the enforceable requirements of the Act.* (1) Unless otherwise provided in paragraph (g)(2) of this section, the Regional Administrator may propose the removal of a specific project or portion thereof from the State project priority list during or after the initial review where there is reason to believe that it will not result in compliance with the enforceable requirements of the Act. Before making a final determination, the Regional Administrator will initiate a public hearing on this issue. Questioned projects shall not be funded during this administrative process. Consideration of grant award will continue for those projects not at issue in accordance with all other requirements of this section.

(i) The Regional Administrator shall establish the procedures for the public notice and conduct of any such hearing, or, as appropriate, the procedures may be adapted from existing agency procedures such as § 6.400 or §§ 123.32 and 123.34 of this chapter. The procedures used must conform to minimum Agency guidelines for public hearings under part 25 of this chapter.

(ii) Within 30 days after the date of the hearing, the Regional Administrator shall transmit to the appropriate State agency a written determination about the questioned projects. If the Regional Administrator determines

that the project will not result in compliance with the enforceable requirements of the Act, the State shall remove the project from the priority list and modify the priority list to reflect this action. The Regional Administrator's determination will constitute the final agency action, unless the State or municipality files a notice of appeal under part 30, subpart J of this subchapter.

(2) The State may use 25 percent of its funds during each fiscal year for projects or portions of projects in categories IIIB, IVA, IVB, and V (see § 35.915(a)(1)(ii)). These projects must be eligible for Federal funding to be included on the priority list. EPA will generally not review these projects under paragraph (g)(1) of this section to determine if they will result in compliance with the enforceable requirements of the Act. The Regional Administrator will, however, review all projects or portions thereof which would use funds beyond the 25-percent level according to the criteria in paragraph (g)(1) of this section.

(h) *Regional Administrator review for eligibility.* If the Regional Administrator determines that a project on the priority list is not eligible for assistance under this subpart, the State and municipality will be promptly advised and the State will be required to modify its priority list accordingly. Elimination of any project from the priority list shall be final and conclusive unless the State or municipality files a notice of appeal under part 30, subpart J of this subchapter.

§ 35.915-1 Reserves related to the project priority list.

In developing the fundable portion of the priority list, the State shall provide for the establishment of the several reserves required or allowed under this section. The State shall submit a statement specifying the amount to be set aside for each reserve with the final project priority list.

(a) *Reserve for State management assistance grants.* The State may (but need not) propose that the Regional Administrator set aside from each allotment a reserve not to exceed 2 percent or \$400,000, whichever is greater, for State management assistance grants under subpart F of this part. Grants may be made from these funds to cover the reasonable costs of administering activities delegated to a State. Funds reserved for this purpose that are not obligated by the end of the allotment period will be added to the amounts last allotted to a State. These funds shall be immediately available for obligation to projects in the same manner and to the same extent as the last allotment.

(b) *Reserve for innovative and alternative technology project grant in-*

crease. Each State shall set aside from its annual allotment a specific percentage to increase the Federal share of grant awards from 75 percent to 85 percent of the eligible cost of construction (under §35.908(b)(1)) for construction projects which use innovative or alternative waste water treatment processes and techniques. The set-aside amount shall be 2 percent of the State's allotment for each of fiscal years 1979 and 1980, and 3 percent for fiscal year 1981. Of this amount not less than one-half of 1 percent of the State's allotment shall be set aside to increase the Federal grant share for projects utilizing innovative processes and techniques. Funds reserved under this section may be expended on projects for which facilities plans were initiated before fiscal year 1979. These funds shall be reallocated if not used for this purpose during the allotment period.

(c) *Reserve for grant increases.* The State shall set aside not less than 5 percent of the total funds available during the priority list year for grant increases (including any funds necessary for development of municipal pretreatment programs) for projects awarded assistance under §35.935-11. The funds reserved for this purpose shall be reallocated if not obligated. Therefore, if they are not needed for grant increases they should be released for funding additional projects before the reallocation deadline.

(d) *Reserve for step 1 and step 2 projects.* The State may (but need not) set aside up to 10 percent of the total funds available in order to provide grant assistance to step 1 and step 2 projects that may be selected for funding after the final submission of the project priority list. The funds reserved for this purpose shall be reallocated if not obligated. Therefore, they should be released for funding additional projects before the reallocation deadline.

(e) *Reserve for alternative systems for small communities.* Each State with a rural population of 25 percent or more (as determined by population estimates of the Bureau of Census) shall set aside an amount equal to 4 percent of the State's annual allotment, beginning with the fiscal year 1979 allotment. The set-aside amount shall be used for funding alternatives to conventional treatment works for small communities. The Regional Administrator may authorize, at the request of the Governor of any non-rural State, a reserve of up to 4 percent of that State's allotment for alternatives to conventional treatment works for small communities. For the purposes of this paragraph, the definition of a small community is any municipality with a population of 3,500 or less, or highly dispersed sections of

larger municipalities, as determined by the Regional Administrator. In States where the reserve is mandatory, these funds shall be reallocated if not obligated during the allotment period. In States where the reserve is optional, these funds should be released for funding projects before the reallocation deadline.

§ 35.917 Facilities planning (step 1).

(a) Sections 35.917 through 35.917-9 establish the requirements for facilities plans.

(b) Facilities planning consists of those necessary plans and studies which directly relate to the construction of treatment works necessary to comply with sections 301 and 302 of the Act. Facilities planning will demonstrate the need for the proposed facilities. Through a systematic evaluation of feasible alternatives, it will also demonstrate that the selected alternative is cost-effective, i.e., is the most economical means of meeting established effluent and water quality goals while recognizing environmental and social considerations. (See appendix A to this subpart.)

(c) EPA requires full compliance with the facilities planning provisions of this subpart before award of step 2 or step 3 grant assistance. (Facilities planning initiated before May 1, 1974, may be accepted under regulations published on February 11, 1974, if the step 2 or step 3 grant assistance is awarded before April 1, 1980.)

(d) Grant assistance for step 2 or step 3 may be awarded before approval of a facilities plan for the entire geographic area to be served by the complete waste treatment system of which the proposed treatment works will be an integral part if:

(1) The Regional Administrator determines that applicable statutory requirements have been met (see §§ 35.925-7 and 35.925-8); that the facilities planning related to the proposed step 2 or step 3 project has been substantially completed; and that the step 2 or step 3 project for which grant assistance is made will not be significantly affected by the completion of the facilities plan and will be a component part of the complete system; and

(2) The applicant agrees to complete the facilities plan on a schedule the State accepts (subject to the Regional Administrator's approval); the schedule shall be inserted as a special condition in the grant agreement.

(e) Facilities planning may not be initiated before award of a step 1 grant or written approval of a plan of study (see §35.920-3(a)(1)) accompanied by reservation of funds for a step 1 grant (see §§ 35.925-18 and 35.905). Facility planning must be based on load allocations, delineation of facility

planning areas and population projection totals and disaggregations in approved water quality management (WQM) plans. (See paragraph 8a(3) of appendix A.) After October 1, 1979, the Regional Administrator shall not approve grant assistance for any project under this subpart if such facility-related information is not available in an approved WQM plan, unless the Regional Administrator determines, in writing, based on information submitted by the State or the grantee, that the facility-related information was not within the scope of the WQM work program, or that award of the grant is necessary to achieve water quality goals of the Act.

(f) If the information required as part of a facilities plan has been developed separately, the facilities plan should incorporate it by reference. Planning which has been previously or collaterally accomplished under local, State, or Federal programs will be utilized (not duplicated).

§ 35.917-1 Content of facilities plan.

Facilities planning must address each of the following to the extent considered appropriate by the Regional Administrator:

(a) A description of the treatment works for which construction drawings and specifications are to be prepared. This description shall include preliminary engineering data, cost estimates for design and construction of the treatment works, and a schedule for completion of design and construction. The preliminary engineering data may include, to the extent appropriate, information such as a schematic flow diagram, unit processes, design data regarding detention times, flow rates, sizing of units, etc.

(b) A description of the selected complete waste treatment system(s) of which the proposed treatment works is a part. The description shall cover all elements of the system, from the service area and collection sewers, through treatment, to the ultimate discharge of treated wastewaters and management and disposal of sludge. Planning area maps must include major components of existing and proposed treatment works. For individual systems, planning area maps must include those individual systems which are proposed for funding under §35.918.

(c) Infiltration/inflow documentation in accordance with §35.927 et seq.

(d) A cost-effectiveness analysis of alternatives for the treatment works and for the complete waste treatment system(s) of which the treatment works is a part. The selection of the system(s) and the choice of the treatment works for which construction drawings and specifications are to be prepared shall be based on the results

LYNN H. HEUSINKVELD
ATTORNEY AT LAW
A PROFESSIONAL CORPORATION
336 NORTH FRONT STREET
COOS BAY, OREGON 97420

TELEPHONE
(503) 269-7511

October 4, 1979

RECEIVED
OCT 18 1979

William Young, Director
Dept. of Environmental Quality

Legislative Counsel
5101 State Capital
Salem, Oregon 97308

Re: Charleston Sanitary District
Our File No. 212-7.13

Gentlemen:

Enclosed please find a copy of a letter written on behalf of the Charleston Sanitary District to the Environmental Quality Commission and Environmental Protection Agency regarding rules recently adopted by the Environmental Quality Commission for dispersal of federal funds under the Clean Water Act of 1977. The Charleston Sanitary District is effected by these rules and respectfully requests that you review the rules to determine whether the rules are within the intent and scope of the enabling legislation purporting to authorize the adoption of the rule and whether the rules have been adopted in accordance with all applicable provisions of law.

I respectfully request the opportunity to be present at any conferences your office may hold with the Environmental Quality Commission or the Environmental Protection Agency regarding this matter and that I be notified of any other communications made with the Environmental Quality Commission or the Environmental Protection Agency regarding this matter.

Thank you.

Sincerely,

Lynn H. Heusinkveld

LHH:s
cc: client

Mr. William Young, Director
Environmental Quality Commission
1234 S. W. Morrison Street
Portland, Oregon 97205

Legislative Council
October 4, 1979
Page 2.

Mr. Douglas Costle, Administrator
U. S. Environmental Protection Agency
401 M Street S. W.
Washington, D.C. 20460

U. S. Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, Washington 98101
Attn: Roy L. Ellerman, P. E.
Chief Waste Water Operations Branch

Office of Senator Hatfield
Mr. Dick Granger
104 Pioneer Courthouse
Portland, Oregon 97204

LYNN H. HEUSINKVELD
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October 4, 1979

Mr. William Young, Director
Environmental Quality Commission
1234 S. W. Morrison Street
Portland, Oregon 97205

RECEIVED
OCT 18 1979

State of Oregon
Department of Environmental Quality

Mr. Douglas Costle, Administrator
U. S. Environmental Protection Agency
401 M Street S. W.
Washington, D. C. 20460

Re: Charleston Sanitary District
Our File No. 212-7.13

Gentlemen:

The Charleston Sanitary District respectfully gives notice that it is considering the filing of litigation as permitted by ORS 183.400 and 33 U.S.C. Section 1365 for the judicial determination of the validity of rules adopted by the Environmental Quality Commission known as the "Fiscal Year 80 Sewerage Works Construction Grants Priority Criteria and Managements Systems". Such rules were adopted at the August 31, 1979 Environmental Quality Commission meeting and have already taken effect.

Under these rules there is no possibility that the Charleston Sanitary District will be certified as eligible to receive any of the federal funds administered by the Environmental Quality Commission under the Clean Water Act of 1977. These funds are necessary for completion of Charleston's 1976-1977 sewage treatment works project by construction of necessary collection lines and pump stations. Although, as previously indicated to the Environmental Quality Commission, a majority of the residents within the Charleston Sanitary District are not served by sewer, under the new rules, Charleston is ineligible for any Clean Water Act funds in spite of the fact that:

(1) Charleston is situated along the shores of the navigable waters of the important Oregon port of Coos Bay.

(2) The waters of Coos Bay, and those near Charleston in particular, are known to be important waters for the propagation of fish, shellfish and wildlife as well as for recreation in and on the water.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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OCT 16 1979

OFFICE OF THE DIRECTOR

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OCT 18 1979

Environmental Quality Commission
U. S. Environmental Protection Agency

(3) An Environmental Quality Commission survey conducted in mid-1979 indicates that at least one-third of the septic systems within the Charleston Sanitary District may be failing.

(4) The Charleston Sanitary District is a municipality of substantial financial need.

The Charleston Sanitary District intends to prove that the challenged rules are invalid for the following reasons:

(1) The rules are not within the intent and scope of the enabling legislation purporting to authorize the adoption thereof.

(2) The rules were not adopted in accordance with all applicable provisions of law.

(3) The Environmental Quality Commission failed to satisfy the notice requirements set forth in ORS 183.335 (1) (a-c).

(4) The Environmental Quality Commission has not satisfied the requirement that it "consider fully any written or oral submission" as required by ORS 183.355 (3).

(5) The rules exceed the statutory authority of the agency as set forth in ORS 468.015, 468.020, 454.505 and 454.515.

(6) Implementation of the rules by the Environmental Quality Commission will result in a failure to perform acts and duties under the Clean Water Act which are not discretionary with the Administrator under 33 U.S.C. Sections 1251 through 1365 generally and 33 U.S.C. Section 1296 in particular.

Included within the goals of the Clean Water Act are the following goals:

(1) To eliminate the discharge of pollutants into the navigable waters of the nation by 1985.

(2) To achieve by July 1, 1983 an interim goal of water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water. 33 U.S.C. Section 1251

The purpose of the subchapter authorizing grants for construction of treatment works is to assist the development and implementation of waste treatment, management plans and practices which will achieve the goals set forth in 33 U.S.C. Section 1251. 33 U.S.C. 1281 (a)

The FY-80 rules adopted by the Environmental Quality Commission fail to achieve the purpose of the Clean Water Act.

Not only are grants authorized for new collection systems in communities such as Charleston which have sufficient existing or planned capacity adequately to treat such collected sewage (33 U.S.C. Section 1291) but states administering Clean Water Act funds are specifically directed to favor such projects in the section of the Clean Water Act setting forth rules for determination of priority of projects:

"Not less than twenty-five per centum of the funds allocated to a state in any fiscal year under this subchapter . . . shall be obligated for those types of projects referred to in clauses (D), (E), (F) and (G) of this section, . . . " 33 U.S.C. Section 1296 (emphasis supplied)

Clause (E) of 33 U.S.C. Section 1296 requires that:

"These categories shall include, . . .

(E) new collector sewers and appurtenances.
. . . "

Rather than assure that funds are provided for new collectors sewers and appurtenances as required by 33 U.S.C. Section 1296 the rules adopted by the Environmental Quality Commission closes the door to certification of new collection systems, limiting consideration only to projects:

(1) which have been certified for a Step I grant and serve an area where mandatory health hazard annexation pursuant to ORS 222.850 at seq. is required, or

(2) where elimination of waste disposal wells is required by OAR 340-44-005 et seq.

"Other collection systems will not be certified."
OREGON STATE DEPARTMENT OF ENVIRONMENTAL QUALITY PRIORITY SYSTEM FOR SEWERAGE WORKS, CONSTRUCTION GRANTS, AUGUST 31, 1979. II A 5 (copy enclosed).

Query: How does this particular engrafting of limitations upon the types of sewer collection systems which will receive funding comport with the requirements of 33 U.S.C. Sections 1296, 1291 and Oregon's achievement of the 1983 and 1985 Clean Water Act goals set forth in 33 U.S.C. Section 1251? The answer is that it simply does not comply with these requirements.

Furthermore, the Environmental Quality Commission management system for dispersal of Clean Water Act funds states that funds will be allocated in the following percentages:

10 percent minimum	Grant Increase <u>Reserve</u> (all steps)
4 percent mandatory	<u>Reserve</u> for Alternative Systems for Small Communities (Steps 2 and/or 3)
2 percent mandatory	Grant Increase <u>Reserve</u> for Innovative/Alternative Technology (10 percent or eligible technology costs during Steps 2 and/or 3). One-half of 1 percent of this reserve is available for innovative projects only.
10 percent optional	Step 1 and Step 2 Grants <u>Reserve</u> which are beyond the Fundable Portion of the FY 80 Priority List
74 percent or remainder	<u>General Allotment</u> for Projects on Fundable Portion of the FY 80 Priority List
100 percent Total State Allotment	

and establishes the following ranking system for the 74 percent remainder classified as "General Allotment":

Project Class Category	(A through E)	
Regulatory Emphasis	150	points maximum
Stream Segment Rank	95.73	points maximum
Population Emphasis	12	points maximum
Project Type	10	points maximum
<hr/>		
Project Priority Value	267.73	points maximum

Were the vast majority of new collector systems qualifying for Clean Water Act funding under 33 U.S.C. Section 1291 (a) (2) even considered for certification under the Environmental Quality Commission managements rules, it is a virtual certainty the Environmental Quality Commission would have failed to commit the required funds to this type of project and that such projects would receive little or no funds under the Environmental Quality Commission priority ranking system. Out of a project priority value maximum point total of 267.73 points project type is given only a 10 point share and new collectors are given only 1 point out of 267.73. No steps are taken by the Environmental Quality Commission in its FY 80 Rules to assure that 25 percent of Clean Water Act funds it administers are allocated to types D, E, F and G projects as required by 33 U.S.C. Section 1296

Neither state nor federal laws authorize the elimination of sewer collection systems from eligibility consideration for grants for construction of municipal sewage treatment works. Treatment works are defined in 33 U.S.C. Section 1292 (2) (A) of the Clean Water Act to include "outfall sewers, sewer collection systems, pumping power and other equipment and their appurtenances;" and in ORS 454.505 (5) to include "outfall and outlet sewers, pumping stations, integral to such . . . sewers . . . and their appurtenances."

ORS 454.515 (3) directs that in allocating state and federal funds under the Clean Water Act the Environmental Quality Commission shall give consideration to the following criteria which the Environmental Quality Commission has apparently chosen to ignore.

- (a) Public benefits to be derived from the construction.
- . . .
- (c) Public interest in and necessity for the sewage treatment works.
- . . .
- (f) The municipality's financial need.

The Charleston Sanitary District contends that the public need with which the Environmental Quality Commission should have been concerned in its development of rules under the Clean Water Act are those goals set by Congress in 33 U.S.C. Section 1251 (A) (1) through (6). These goals are nowhere addressed by the Environmental Quality Commission rules nor is any effort made to address the mandatory state requirements set forth in ORS 454.515. The Environmental Quality Commission has stated the federal rules prohibit consideration of financial need but

no such rule has been set forth by the Environmental Quality Commission nor does it appear from the Clean Water Act that such a rule should exist. ORS 454.515 (3) (f) is not specifically addressed by the Environmental Quality Commission. The Commission fails to meet the requirements of ORS 454.505 to 454.535 and specifically ORS 454.515 (3) (f).

Although the Environmental Quality Commission has sent several notices of the various meetings, not one notice sent by the Environmental Quality Commission referred to the mandatory requirements of ORS 454.515 nor was any specific statutory justification for elimination of funding for collection systems and refusal to consider a municipality-grant-applicant's financial need ever given by the Environmental Quality Commission. ORS 183.335 (C) (7) (a) requires an agency to include within its statement on its intended action legal authority relied upon and bearing upon the proposed rule. The Environmental Quality Commission's statements contain no discussion of the legal authority discussed herein, and for this reason alone, the Charleston Sanitary District believes the Environmental Quality Commission's FY 80 rules must be invalidated.

Finally, ORS 183.335 requires that the agency fully consider any written or oral submissions. It is obvious from an examination of the material transmitted to the Director for decision on the rule that full consideration was not given to Charleston Sanitary District's oral and written submissions. The failure of the Environmental Quality Commission to address Clean Water Act goals was discussed extensively in Charleston Sanitary District's August 3, 1979 oral presentation, but not mentioned in the Environmental Quality Commission's summary of this testimony. With Environmental Quality Commission permission the Charleston Sanitary District's August 3, 1979 oral presentation was followed up by a letter dated August 10, 1979 which discussed the failure of the ranking system to accomplish the purposes of the Clean Water Act, but the Environmental Quality Commission elected not to include this letter in the material transmitted to the Director for his consideration in making the decision to implement FY 80 rules. Instead the Environmental Quality Commission included a preliminary letter not specifically addressed to the issues under consideration. The materials submitted to the Environmental Quality Director are voluminous and will be provided upon request. Copies of the letters from the Charleston Sanitary District mentioned herein are enclosed.

Environmental Quality Commission
U. S. Environmental Protection Agency
October 4, 1979
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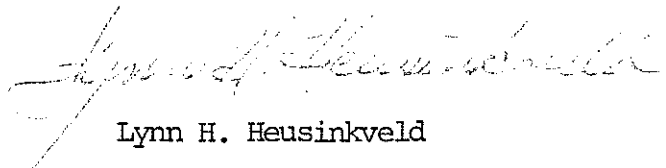
33 U.S.C. Section 1365 requires that before a citizen suit is initiated under the Clean Water Act sixty (60) days notice be given to the Environmental Protection Agency and to the state in which the violation occurs. Of course, the Charleston Sanitary District can elect notwithstanding the requirements of 33 U.S.C. Section 1365 to proceed under ORS 183.400 on petition to the Oregon Court of Appeals for judicial determination of validity of the rules adopted by the Environmental Quality Commission. However, the Charleston Sanitary District is not interested in unnecessarily incurring or causing the Environmental Quality Commission to incur the substantial expense of litigation concerning the matter set forth herein.

The provisions of ORS 171.709 (2) provide the Charleston Sanitary District access to review by the legislative counsel and the Charleston Sanitary District therefore requests (1) that the Environmental Quality Commission's FY 80 rules be reviewed by the legislative counsel as authorized by ORS 171.709 (2) and (2) that the Environmental Quality Commission promptly justify and demonstrate that the FY 80 rules are (a) "within the scope of enabling legislation" as required by ORS 183.720 (3) (a) and demonstrate also (b) that the rule was adopted in accordance with all applicable provisions of law as required by ORS 183.720 (3) (b) and (c) that the rules were submitted to the legislative counsel for review as required by ORS 171.707 171.715 and 183.335 (b).

Based on the foregoing, the Charleston Sanitary District believes that the Environmental Quality Commission will recognize the substantial danger in dispersing funds and setting priorities based upon the questioned FY 80 rules until this matter is resolved.

By copy of this letter to the legislative counsel, the Charleston Sanitary District respectfully requests a prompt review of the issues set forth herein.

Sincerely,



Lynn H. Heusinkveld

LHH:s
enc.
cc: client

Legislative Counsel
S101 State Capital
Salem, Oregon 97308

Environmental Quality Commission
U. S. Environmental Protection Agency
October 4, 1979
Page 8.

U. S. Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, Washington 98101
Attn: Roy L. Ellerman, P. E.
Chief Waste Water Operations Branch

Office of Senator Hatfield
Mr. Dick Granger
104 Pioneer Courthouse
Portland, Oregon 97204

LYNN H. HEUSINKVELD
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(503) 269-7511

October 4, 1979

RECEIVED
OCT 18 1979

Water Quality Division
Dept. of Environmental Quality

Legislative Counsel
1101 State Capital
Salem, Oregon 97308

Re: Charleston Sanitary District
Our File No. 212-7.13

Gentlemen:

Enclosed please find a copy of a letter written on behalf of the Charleston Sanitary District to the Environmental Quality Commission and Environmental Protection Agency regarding rules recently adopted by the Environmental Quality Commission for dispersal of federal funds under the Clean Water Act of 1977. The Charleston Sanitary District is effected by these rules and respectfully requests that you review the rules to determine whether the rules are within the intent and scope of the enabling legislation purporting to authorize the adoption of the rule and whether the rules have been adopted in accordance with all applicable provisions of law.

I respectfully request the opportunity to be present at any conferences your office may hold with the Environmental Quality Commission or the Environmental Protection Agency regarding this matter and that I be notified of any other communications made with the Environmental Quality Commission or the Environmental Protection Agency regarding this matter.

Thank you.

Sincerely,

Lynn H. Heusinkveld

LHH:s
cc: client

Mr. William Young, Director
Environmental Quality Commission
1234 S. W. Morrison Street
Portland, Oregon 97205

Legislative Council
October 4, 1979
Page 2.

Mr. Douglas Costle, Administrator
U. S. Environmental Protection Agency
401 M Street S. W.
Washington, D.C. 20460

U. S. Environmental Protection Agency
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1200 Sixth Avenue
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State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
R E C E I V E D
JUL 5 1979

June 29, 1979

WATER QUALITY CONTROL

Environmental Quality Commission
P. O. Box 1760
Portland, Oregon 97207

Re: Charleston Sanitary District
Our File No. 212-7

Gentlemen:

Your notice regarding the hearing scheduled for August 3, 1979 in Portland has been received by this office. I am the attorney for the Charleston Sanitary District and am very concerned about the proposed revisions of the priority criteria and management system which will be used to rank individual projects for federal construction grant funds during fiscal year 1980.

The Charleston Sanitary District, as you may know, has installed a trunk line as the first phase of a system which will provide sanitary sewer service to the approximately 6,000 people residing in and about the Charleston Barview area of Coos County. The present system serves only a small fraction of the residents of the Charleston Sanitary District. Results of a survey completed June 19, 1979 indicate that at least 32% of the District's homes show evidence of septic system failure. A copy of that survey is enclosed. As indicated in the Department of Environmental Quality report the survey was conducted at a time of low rainfall and if conducted during our rainy period the survey might have produced even more substantial evidence of the severity of Charlestons' sanitary sewage problem. Despite the obvious health hazard presented by such wide spread septic system failure the present priority criteria and management system means there is almost no possibility that the problem will be rectified within the near future. Given the fact that many of the residents draw their drinking water from shallow wells the potential health hazard posed by this situation are obvious.

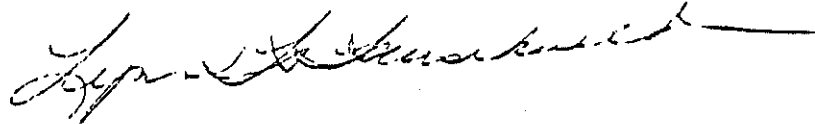
The Environmental Quality Commission is at once the hope and the fear of Charleston residents. They know that should their house be

Environmental Quality Commission
June 29, 1979
Page 2

destroyed by fire, notwithstanding the fact that they are fully insured, they will not be able to replace their home because they will not be able to secure a permit to reconnect a new residence to their present septic system. Residents who have lived for years in Charleston live in continual fear that the Environmental Quality Commission will point out to them what they already know i.e. that their sewage disposal system is inadequate. At the same time the Department of Environmental Quality Administration of E.P.A. funds presents the best hope for a solution to such residence sewage waste problems.

In your notice you indicate that you will be sending additional materials on July 3, 1979 and that you will on request place parties on the agency mailing list. Please place my name on the agency mailing list.

Sincerely,



Lynn H. Heusinkveld

LHH:sre
cc: client
HGE, Inc.
Rich Ryder
Enc.



Department of Environmental Quality
SOUTHWEST REGION

1937 W. HARVARD BLVD., ROSEBURG, OREGON 97470 PHONE (503) 672-8204
Coos Bay Branch Office - 490 North Second, Coos Bay, OR 97420 - 269-2721

Richard P. Reiter
Regional Manager

June 19, 1979

Charleston Sanitary District
Cape Arago Highway
Coos Bay, OR 97420

RE: WQ-SS-Coos County
Charleston Survey

Gentlemen:

All homes interviewed were categorized as follows:

- a) No sign of failure
- b) Indirect failure
- c) Direct failure

Indirect failures included those systems which showed signs of malfunction, but no sewage was detected on the surface of the ground. Lush grass growth over drainfield and sunken drainlines are just two examples. These systems should be considered as potential failures and/or sources of possible groundwater pollution. Failure of these systems is often directly related to heavy saturation of drainfield by rain. Low rainfall during and prior to the survey may have prevented some of these indirect failures from being classified as direct failures.

Direct failures are those systems discharging sewage to the surface as observed by the inspector on the date of the survey.

Indirect and direct failure were combined to indicate the percentage of systems which are inadequate. These systems require some remedy, but few have room for repair or land which will overcome the limitations of the area.

From my observations, I have compiled a list of streets which indicate a major problem exists. These include streets that have fifty percent or greater homes with indirectly or directly failing septic systems. Streets with fewer than four homes interviewed were not included.

Charleston Sanitary District
June 19, 1979
PAGE TWO

Braleley
Crown Point
Hollywood
Lowell
Olive

Tarheel
Travis
Welch
Wildahl
Wygant

Hopefully this survey will aid you in obtaining needed funds.

Sincerely,



Connie Lee Andrews
Sanitarian

In Cooperation With -

The Dept. of Environmental Quality -
Southwest Region Office - Roseburg

Coos County Health Department
Charleston Sanitary District

C. O. G.

Lynn Heusinkveld

CLA:dp

Encl.

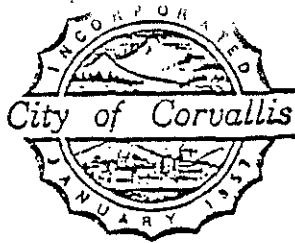
cc: B. Taylor
C. O. G.
R. Reiter
✓ L. Heusinkveld

14-110-21
 B - Indirect failure
 C - Direct failure

8

street	B	C	B+C	street	B	C	B+C
Abbey	$\frac{3}{3}$ 100%	$\frac{0}{3}$ 0%	$\frac{3}{3}$ 100%	Dallaire Ct.	$\frac{1}{1}$ 100%	$\frac{0}{1}$ 0%	$\frac{1}{1}$ 100%
Anchorage	$\frac{0}{1}$ 0%	$\frac{1}{1}$ 100%	$\frac{1}{1}$ 100%	Dolezal			$\frac{0}{4}$ 0%
Barklow	$\frac{0}{6}$ 0%	$\frac{1}{6}$ 17%	$\frac{1}{6}$ 17%	Duling Dr.			$\frac{0}{5}$ 0%
Barview	$\frac{2}{28}$ 7%	$\frac{7}{28}$ 25%	$\frac{9}{28}$ 32%	Empire	$\frac{0}{2}$ 0%	$\frac{1}{2}$ 50%	$\frac{1}{2}$ 50%
Beacon	$\frac{1}{6}$ 17%	$\frac{0}{6}$ 0%	$\frac{1}{6}$ 17%	Evergreen	$\frac{1}{3}$ 33%	$\frac{1}{3}$ 33%	$\frac{2}{3}$ 67%
Bruley	$\frac{3}{6}$ 50%	$\frac{0}{6}$ 0%	$\frac{3}{6}$ 50%	Fossil Point	$\frac{0}{4}$ 0%	$\frac{1}{4}$ 25%	$\frac{1}{4}$ 25%
Bruce			$\frac{0}{2}$ 0%	Grand	$\frac{0}{8}$ 0%	$\frac{1}{8}$ 13%	$\frac{1}{8}$ 13%
Cameron	$\frac{3}{8}$ 38%	$\frac{0}{8}$ 0%		Grinnell	$\frac{3}{5}$ 60%	$\frac{1}{5}$ 20%	$\frac{4}{5}$ 80%
Cape Arago Hwy	$\frac{3}{9}$ 33%	$\frac{0}{9}$ 0%	$\frac{3}{9}$ 33%	Hallmark way	$\frac{1}{1}$ 100%	$\frac{0}{1}$ 0%	$\frac{1}{1}$ 100%
Caraway			$\frac{0}{4}$ 0%	Harmony Lane	$\frac{1}{5}$ 20%	$\frac{1}{5}$ 20%	$\frac{2}{5}$ 40%
Eastwood Pl.			$\frac{0}{2}$ 0%	Hollywood	$\frac{4}{4}$ 100%	$\frac{1}{4}$ 25%	$\frac{5}{4}$ 125%
Green Point	$\frac{3}{13}$	$\frac{4}{13}$	$\frac{7}{13}$	Jade	$\frac{2}{3}$ 67%	$\frac{4}{3}$ 133%	$\frac{2}{3}$ 67%

Street	R	C	R+C	Street	R	C	R+C
Joe Ney	$\frac{1}{4}$ 25%	$\frac{0}{4}$ 0%	$\frac{1}{4}$ 25%	Seaspray			
Kellogg	$\frac{1}{5}$ 15%	$\frac{2}{5}$ 13%	$\frac{3}{5}$ 19%	Shore Edge			
Libby			$\frac{0}{7}$ 0%	Seven Devils	$\frac{1}{1}$ 100%	$\frac{0}{1}$ 0%	
Lowell	$\frac{0}{4}$ 0%	$\frac{4}{4}$ 100%	$\frac{4}{4}$ 100%	Shell			
Live	$\frac{0}{6}$ 0%	$\frac{3}{6}$ 50%	$\frac{3}{6}$ 50%	Spaw	$\frac{2}{14}$ 14%	$\frac{0}{14}$ 0%	
Minster			$\frac{0}{2}$ 0%	Spring St.			
Penny			$\frac{0}{7}$ 0%	Tarheel	$\frac{5}{10}$ 50%	$\frac{2}{10}$ 20%	
Pigeon Point Loop			$\frac{0}{4}$ 0%	Travis	$\frac{3}{11}$ 28%	$\frac{3}{11}$ 28%	
Robertson	$\frac{2}{14}$ 14%	$\frac{2}{14}$ 14%	$\frac{4}{14}$ 28%	Velma Lane			
Roosevelt	$\frac{5}{6}$ 83%	$\frac{0}{6}$ 0%	$\frac{5}{6}$ 83%	Wallace	$\frac{3}{10}$ 30%	$\frac{0}{10}$ 0%	
Roy	$\frac{3}{12}$ 25%	$\frac{1}{12}$ 8%	$\frac{4}{12}$ 33%	Wayfare			
Stallion	$\frac{1}{10}$	$\frac{0}{10}$	$\frac{1}{10}$	Wynab	$\frac{1}{5}$	$\frac{2}{5}$	



ADMINISTRATIVE OFFICES

CITY MANAGER 757-6901
MAYOR 757-6901
PERSONNEL 757-6902
PUBLIC WORKS 757-6903
DIRECTOR

August 2, 1979

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

Attention: Harold L. Sawyer, Administrator-Water Quality Division

This letter is forwarded as the response by the City of Corvallis to the proposed priority systems developed by the Department of Environmental Quality for the FY'80 Sewerage Works Construction Grants. Your office is to be commended for its approach, documentation, and submission of the various alternatives for the review by the general public. The format in which the material was presented provides an opportunity for the public to review the critical issues following a very logical and precise outline. The informational meetings conducted by staff prior to publication of the proposed priority systems were an effective forum for interested parties to receive information and articulate their positions.

It is our understanding that Congress is now in the process of approving a \$3.4 billion appropriation. This anticipates the State of Oregon receiving \$44.1 million for FY'80. Detailed below are our views on the various alternatives presented which are keyed to section and paragraph numbers in your document.

II. Management Systems

A. Available Funds

1. Grant Increases

The City of Corvallis concurs with the DEQ staff proposal to increase the reserve for grant increases from 5 to 10 percent. It is our position that cost overruns due to inflation and variations from cost estimates should be financed through the reserve account.

We also agree with the staff position to rank changes in the scope of the project with the balance of the proposed projects on the priority list. This mechanism would insure that the citizens of the State of Oregon are receiving maximum benefits for the dollars invested.

LYNN H. HEUSINKVELD
ATTORNEY AT LAW
A PROFESSIONAL CORPORATION
336 NORTH FRONT STREET
COOS BAY, OREGON 97420

TELEPHONE
(503) 269-7511

August 10, 1979

Administrator-Water Quality Division
Department of Environmental Quality
522 S. W. Fifth Avenue
P. O. Box 1760
Portland, Oregon 97208

Re: Charleston Sanitary District
Our File No. 212-7

Gentlemen:

The Charleston Sanitary District has asked me to respond on its' behalf to the Departments' proposed FY80 Sewage Works Construction Grants Priority System. As you know, Charleston is situated at the entrance to the Port of Coos Bay. The Port of Coos Bay is now the leading lumber export harbor of the United States and is also a leading area for salmon, crab, oyster, clam and bottom fish production. Sport fishing, good hunting and great natural beauty make the Charleston area a center of tourism and a splendid area for nature studies. Cape Arago, Sunset Beach, the South Slough Sanctuary and the seals and sea lions of Simpson Reef draw tourists and professional naturalists to Charleston. These and many more are environmental treasures to be protected. In many respects, Charleston is a perfect example of the type of area the Clean Water Act was designed to protect and preserve. I quote from the Congressional Declaration of Goals (33 U.S.C., § 1251):

(1) It is the National goal that the discharge of pollutants into the navigable waters be eliminated by 1985;

(2) It is the National goal that wherever attainable an interim goal of water quality which provides for the protection and propagation of fish, shell fish and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;

(6) It is the National policy that a major research and demonstration effort be made to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone and the oceans.

As the Department of Environmental Quality redefines its' priority system and tightens its criteria in anticipation of funding reductions in fiscal year 1980 and beyond, the Charleston Sanitary District suggests that the DEQ ought to pause and reflect upon the Congressional Declarations of purpose and gauge the proposed priority systems effectiveness in attaining these goals. The Charleston Sanitary District submits that the DEQ has lost sight of these goals and with the proposed priority rating criteria fails to adequately address the environmental concerns which precipitated the grant program the priority system is intended to administer.

It is difficult to perceive any criteria from the proposed ranking system which will assist the Department of Environmental Quality in assisting the Nation in achieving a water quality which "provides for the protection and propagation of fish, shell fish and wildlife". Nor does the ranking system demonstrate an effort being specifically made to eliminate the discharge of pollutants of the navigable water of the contiguous zones and of the oceans.

Quite probably these goals are buried in the foundations of the ranking system, however, we wonder if these objectives are so deeply buried in the criteria and the competition for the limited funds so great that the pre-eminence of other criteria, specifically population ranking, will result in disbursement of the limited funds in a way which will not effectively assist the achievement of the goals set forth in the Clean Water Act.

Assuming with limited funds only a few of the Class A rated projects can receive funding and the point spread between the highest ranking Class A project and the lowest ranking Class A project which receives funds is only twenty (20) points, the marked skewing of results by the population factor will be indeed significant.

While the population emphasis criteria has been revised to decrease the points spread between the small and large projects, the 13 point maximum in the population emphasis portion of the project priority value ranking system is less significant than the impact of population on Stream Segment Rank. In the Stream Segment Point Ranking Formula, Basin Rank is a regional population ranking system in which Regions are ranked solely on the basis of their population. Out of a possible 98 points there is a 38 point spread between the most populous region and the least populous region, other things being equal more than enough points to eliminate the less populous areas from contention for limited federal funds using the assumption of a 20 point spread between the highest ranking and lowest ranking project receiving funds.

Finally, the regulatory emphasis portion of the criteria system appears on close examination to be a criteria based on the extent and level of documentation rather than specifically the relative severity of the need for regulation of pollutant discharge. While the Charleston Sanitary District

believes that regulatory emphasis has a place in the decision making process, the District does not believe that more than half the points of the Project Priority Value Ranking System should be given to a regulatory emphasis criteria as outlined in the Department of Environmental Quality proposal. As outlined in the proposed language, regulatory emphasis has to do with just how tough the DEQ or some other agencies such as the Health Division is getting or appears to be getting with a particular municipality or district. It seems that in practical effect, the certification of a particular problem as a health hazard becomes an aspect of the documentation process whereby a particular municipality or district proves its entitlement to receive federal funds. When initiated by a district as a part of the documentation process, it appears that the regulation aspect of the criteria has lost much of its original meaning. Reliance upon such preversions of "regulation" may be suspect and may result in the disbursement of funds to the best test takers rather than the most needful. The best test takers will undoubtedly be the project areas with large populations which have developed an expertise in the grant application process.

In order to appropriately discharge its' trusteeship for the Environmental Protection Agency funds, the Department of Environmental Quality handles and the monies entrusted to it by the State of Oregon, it seems that the starting point for the criteria ranking system should be the nature and extent of pollution being caused by an inadequate disposal system and the nature of the water resources being threatened by such pollution. Once these questions are addressed, then a rational ranking system should be developed which has the effect of accomplishing the goals of Congress as expressed in the Clean Water Act.

Such a pragmatic approach to resolving Oregon's water pollution problems may well entail extensive assistance of small communities in developing disposal systems, in the financing of such systems and guidance in the operation and management of such systems, assistance which is not presently given. The Charleston Sanitary District has a great desire to eliminate the pollutions caused by its residences' failing septic systems. As shown by the enclosed plans and survey, a substantial problem exists. The survey indicates that of the homes surveyed, approximately a third had failing septic systems. I am advised that the Public Health Division has certified that hazards to public health exists in situations where less than ten per cent of the septic systems were failing. The proximity of the failing septic systems to the productive and protected waters of the Coos Bay and South Slough and Joe Ney Slough obviously suggests that substantial quantities of pollutants are being introduced into the navigable waters of Coos Bay and that these pollutants may threaten the bounteous fish, shell fish and wildlife of the water of Coos Bay.

The Charleston Sanitary District is saddened by the apparent intention of the Department of Environmental Quality and the Environmental Protection Agency to decertify projects for the development of collection systems because the Charleston Sanitary District knows of no other avenues

Adminstrator-Water Quality Division

August 10, 1979

Page 4

open to it which would result in an elimination of this substantial environmental problem. Mr. Taylor in orally addressing the board indicated that the District was here to disclose the problem and ask for a solution. The District renews Mr. Taylor's request that the Department address the concerns posed by Mr. Taylor in its' planning for trusteeship of state and federal funds in 1980 and beyond. How will these problems be solved?

Sincerely,

Lynn H. Heusinkveld

LHH:sre

CHARLESTON
AREA
SEE PLATE 13

COOS BAY

COOS BAY
PLANT 2

CITY OF
COOS BAY
SEE PLATE 10

RECEIVED
OCT 18 1979

Dept. of Environmental Quality

LEGEND

EXISTING FACILITIES

- GRAVITY SEWER
- PRESSURE MAIN
- PUMP STATION

PLANNED FACILITIES

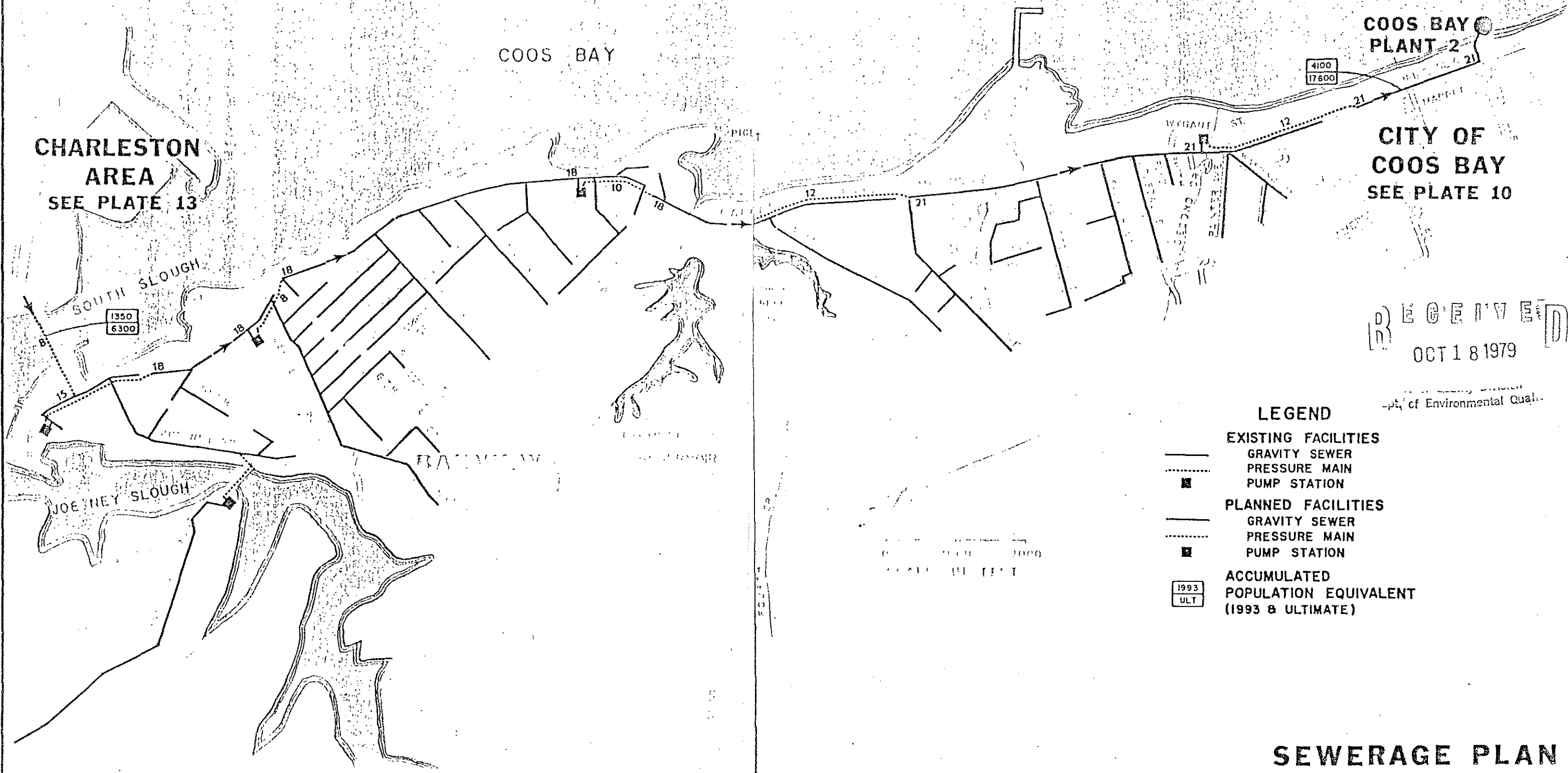
- GRAVITY SEWER
- PRESSURE MAIN
- PUMP STATION

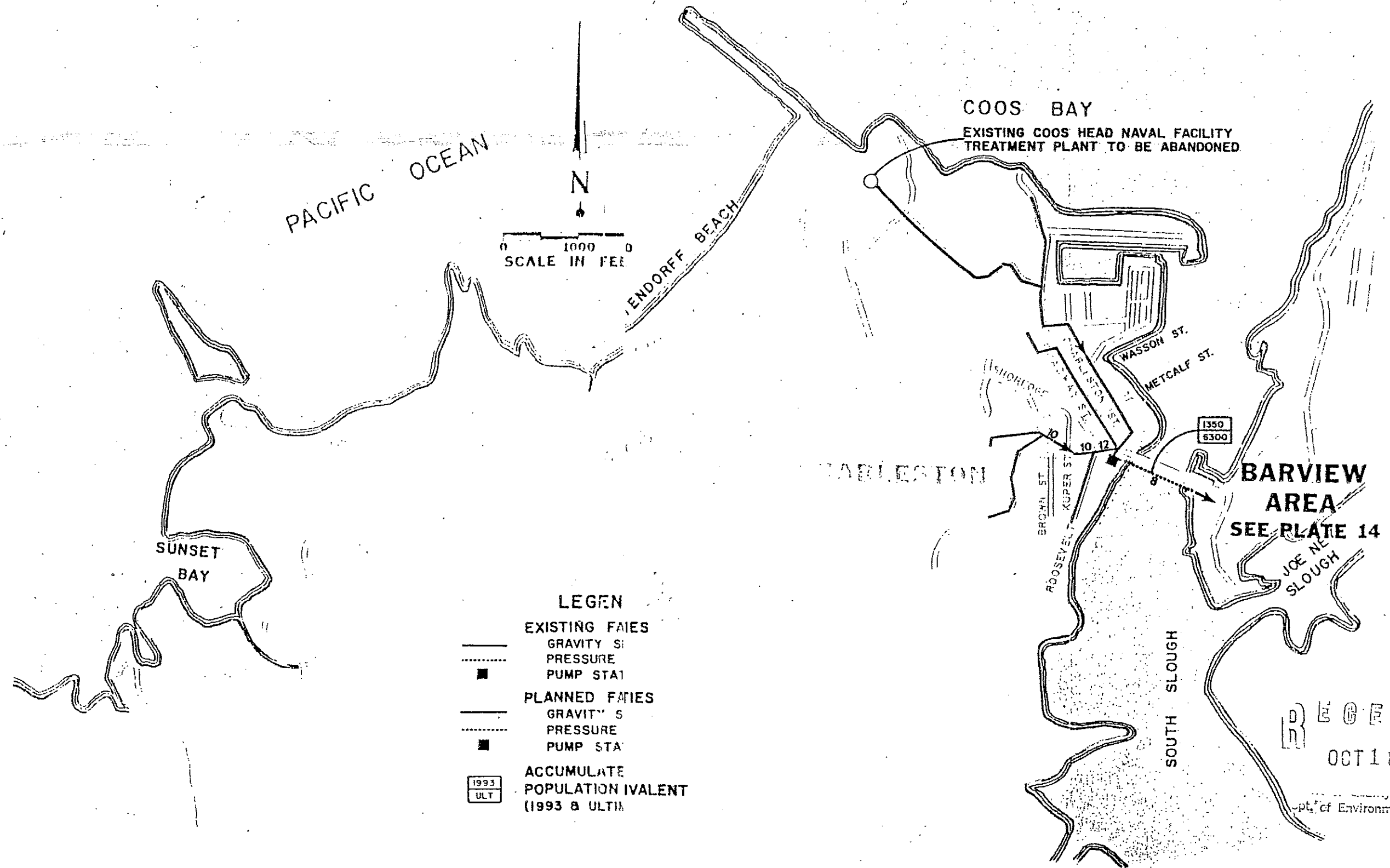
ACCUMULATED
POPULATION EQUIVALENT
(1993 & ULTIMATE)

1993
ULT

SEWERAGE PLAN
BARVIEW AREA

PLATE 14





COOS BAY
 EXISTING COOS HEAD NAVAL FACILITY
 TREATMENT PLANT TO BE ABANDONED

PACIFIC OCEAN

SCALE IN FEET
 0 1000 0

ENDORFF BEACH

SUNSET BAY

CHARLESTON

BARVIEW AREA
 SEE PLATE 14

RECEIVED
 OCT 18 1979

LEGEND

- EXISTING FACILITIES
- GRAVITY SEWER
- PRESSURE SEWER
- PUMP STATION
- PLANNED FACILITIES
- GRAVITY SEWER
- PRESSURE SEWER
- PUMP STATION
- 1993 POPULATION
- ULTIMATE POPULATION (ULT)

SEWERAGE PLAN
 CHARLESTON AREA



TESTIMONY BY LAURENCE E. THORP
BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
ON BEHALF OF THE METROPOLITAN WASTEWATER MANAGEMENT COMMISSION
OCTOBER 19, 1979

The proposal before you, prepared and recommended by the Department of Environmental Quality, has been prepared for the purpose of determining the allocation of federal funds under Environmental Protection Agency Regulations. Those regulations require the creation of a priority list and that the list include only projects which are fundable during the current funding year. Beyond that point is created a planning list which is available for funding in the event excess funds become available. In creating the priority list, the regulations establish criteria which must be considered along with the needs survey, which has previously been considered by DEQ and the EPA. The criteria include:

- A. The severity of the pollution problem;
- B. The existing population affected;
- C. The need for preservation of high quality waters; and
- D. Such other criteria as the State determines including, but not limited to the special needs of small and rural communities.

These criteria were addressed in creating the numerical numbering of the priority list. All of those factors have been considered and have resulted in placing the various projects on the list in the sequence reflected in the proposal by DEQ.

The clear purpose of the priority system is to insure that those projects which are of greatest overall importance in light of the criteria are funded first. The regulations provide for bypassing projects on the priority list only if those projects

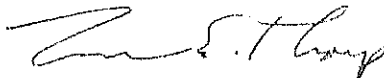
are not ready to proceed during the funding year, and then only after written notice to the municipality involved.

The DEQ proposal clearly flouts the letter, if not the spirit of the Environmental Protection Agency Regulations. It provides for funding projects on the priority list at the expense of reduced funding of higher priority projects. In fact, this process will result in completion of lower priority projects before some of the higher priority projects are completed.

It is common knowledge that federal funding policy is unpredictable at best. That is obviously one of the reasons that federal regulations preclude reimbursement for funds expended in advance by local jurisdiction. The federal government will not insure that it will have those funds available for reimbursement in the future. Likewise, it is obvious that the regulations are aimed at precluding the commencement of projects before other projects are fully funded.

What, in fact, the proposed distribution formula does is reject the entire purpose of the priority system regulations. As a consequence, the system is invalid and subject to legal challenge. In the event legal challenge is made to that list, it would likely result in the delay of distribution of all funds, possibly to the extent that those funds would revert to the Environmental Protection Agency. The only reasonable way to avoid those problems is to delay implementation of the funding proposed by DEQ until the recommendation is readjusted to provide for full funding of highest priority projects to the extent of their current needs first.

Respectfully submitted,



Laurence E. Thorp

LIVELY & WISWALL

644 NORTH A STREET
SPRINGFIELD, OREGON 97477

(503) 747-3354

October 17, 1979

JACK B. LIVELY
WILLIAM WISWALL
JOHN L. SVOBODA
LAURENCE E. THORP
DOUGLAS J. DENNETT
DWIGHT G. PURDY
JILL E. GOLDEN
ROBERT A. MILLERSCOTT M. GALENBECK
SUE A. BETO
GEORGE A. MORRIS
G. DAVID JEWETT

MARVIN O. SANDERS
(1912 - 1977)

Mr. Joe B. Richards, Chairman
Environmental Quality Commission
777 High Street
Eugene, Oregon 97401

Dear Joe:

As you know, this firm represents the Metropolitan Wastewater Management Commission. As you are probably also aware, the Commission is vitally concerned with the upcoming decision by the Environmental Quality Commission on the recommendation of the Department of Environmental Quality concerning allocation of funds under the Clean Water Act of 1977 for construction of municipal wastewater treatment works. Our office has done a considerable amount of research into the background of the priority list and funding system as established by the Environmental Protection Agency Regulations for the use of EPA grant funds. We have also compared the proposed priority list from the Department of Environmental Quality with what we believe to be the controlling EPA regulations.

As a result of this analysis, we have concluded that the proposed funding system is contrary to the EPA regulations concerning the establishment of priority lists and funding for local projects. Basically what has happened is DEQ has established a priority list. DEQ has, however, in allocating the funds for fiscal year 1980 and beyond, skipped around on its priority list and has not funded the projects in relationship to their priority on the list to the extent that each of the municipalities can use the funds available during the current fiscal year. The net effect of this process is that lower priority projects are being funded and will be completed before higher priority projects.

We believe this process to be directly contrary to 40 CFR 35.915 which is the Environmental Protection Agency Regulations on establishment of priority lists. It is our belief that once the priority list is completed, the State is required to allocate funds starting with priority project number one to the extent that they can use the funds during the current fiscal year and to the extent they cannot, move on to priority project number two and so forth down the list. In fact, it is our belief that we would be entitled to seek redress in Federal Court to compel the

Page 2
October 17, 1979
Mr. Joe B. Richards, Chairman

State to comply with the funding requirements of the regulation.

I enclose a copy of 40 CFR 35.915 for your review. I would suggest you review this matter and possibly investigate whether or not the DEQ recommendation complies with the enclosed regulations. It would appear also to be prudent for the Environmental Quality Commission to delay any action concerning the DEQ recommendation until this matter has been resolved.

I would be pleased to discuss this matter further with representatives of EQC, DEQ or the Attorney General's Office.

Very truly yours,

LIVELY & WISWALL



Laurence E. Thorp

LET:jd
Enclosure
cc: William V. Pye
Arl Altman

State	Percentage
Florida	3.8368
Georgia	1.9418
Hawaii	.7928
Idaho	.4952
Illinois	5.1943
Indiana	2.7678
Iowa	1.2953
Kansas	.8803
Kentucky	1.4618
Louisiana	1.2625
Maine	.7495
Maryland	2.7777
Massachusetts	2.9542
Michigan	4.1306
Minnesota	1.8691
Mississippi	.9660
Missouri	2.4957
Montana	.3472
Nebraska	.5505
Nevada	.4138
New Hampshire	.8910
New Jersey	3.5715
New Mexico	.3819
New York	10.8209
North Carolina	1.9808
North Dakota	.3107
Ohio	6.4655
Oklahoma	.9279
Oregon	1.2974
Pennsylvania	4.3616
Rhode Island	.5252
South Carolina	1.1766
South Dakota	.3733
Tennessee	1.5488
Texas	4.3634
Utah	.4457
Vermont	.3845
Virginia	1.9602
Washington	1.7688
West Virginia	1.7903
Wisconsin	1.9503
Wyoming	.3003
Guam	.0744
Puerto Rico	1.1734
Virgin Islands	.0378
American Samoa	.0616
Trust Territory of Pacific	.1530
Total	100.00

(b) Based on paragraph (a), and table 4 of the committee print, the following authorizations are allotted among the States subject to the limitations of paragraph (c) of this section:

State	For fiscal year 1978	For each of the fiscal years 1979, 1980, 1981
Alabama	\$57,789,000	\$64,210,000
Alaska	19,057,500	21,175,000
Arizona	34,968,500	38,755,000
Arkansas	33,808,500	37,565,000
California	357,804,000	397,560,000
Colorado	41,341,500	45,935,000
Connecticut	49,824,000	55,360,000
Delaware	17,982,000	19,980,000
District of Columbia	14,368,500	15,965,000
Florida	172,647,000	191,830,000
Georgia	87,381,000	97,090,000
Hawaii	35,676,000	39,640,000
Idaho	22,284,000	24,760,000
Illinois	233,743,500	259,715,000
Indiana	124,551,000	138,390,000
Iowa	58,283,500	64,765,000
Kansas	39,613,500	44,015,000
Kentucky	65,781,000	73,090,000
Louisiana	56,812,500	63,125,000
Maine	33,727,500	37,475,000
Maryland	124,996,500	138,885,000
Massachusetts	132,939,000	147,710,000
Michigan	185,877,000	206,530,000
Minnesota	84,109,500	93,455,000
Mississippi	43,470,000	48,300,000
Missouri	112,306,500	124,765,000

State	For fiscal year 1978	For each of the fiscal years 1979, 1980, 1981
Montana	15,624,000	17,360,000
Nebraska	24,772,500	27,525,000
Nevada	18,621,000	20,690,000
New Hampshire	39,645,000	44,050,000
New Jersey	160,717,500	178,575,000
New Mexico	17,185,500	19,095,000
New York	477,940,500	531,045,000
North Carolina	89,136,000	99,040,000
North Dakota	13,981,500	15,535,000
Ohio	290,947,500	323,275,000
Oklahoma	41,755,500	46,395,000
Oregon	58,383,000	64,870,000
Pennsylvania	186,272,000	218,080,000
Rhode Island	23,634,000	26,260,000
South Carolina	52,947,000	58,830,000
South Dakota	16,798,500	18,665,000
Tennessee	69,687,000	77,430,000
Texas	196,353,000	218,170,000
Utah	20,056,500	22,285,000
Vermont	17,302,500	19,225,000
Virginia	88,209,000	98,010,000
Washington	79,596,000	88,440,000
West Virginia	80,563,500	89,515,000
Wisconsin	87,763,500	97,515,000
Wyoming	13,513,500	15,815,000
Guam	3,348,000	3,720,000
Puerto Rico	52,803,000	58,670,000
Virgin Islands	1,701,000	1,890,000
American Samoa	2,772,000	3,080,000
Trust Territory of the Pacific Islands	6,885,000	7,650,000
Total	4,500,000,000	5,000,000,000

(c) The authorizations in paragraph (b) of this section depend on appropriation. Therefore, the Regional Administrator may not obligate any portion of any authorization for a fiscal year until a law is enacted appropriating part or all of the sums authorized for that fiscal year. If sums appropriated are less than the sums authorized for a fiscal year, EPA will apply the percentages in paragraph (a) of this section to distribute all appropriated sums among the States, and promptly will notify each State of its share. The Regional Administrator may not obligate more than the State's share of appropriated sums.

(d) If supplementary funds are appropriated in any fiscal year under section 205(e) of the Act to carry out the purposes of this paragraph, no State shall receive less than one-half of 1 percent of the total allotment among all States for that fiscal year, except that in the case of Guam, the Virgin Islands, American Samoa, and the Trust Territories not more than thirty-three one-hundredths of 1 percent of the total allotment shall be allotted to all four of those jurisdictions. If for any fiscal year the amount appropriated to carry out this paragraph is less than the full amount needed, the following States will share in any funds appropriated for the purposes of this paragraph in the following percentages, drawn from the note to table 3 of committee print numbered 95-30 of the Committee on Public Works and Transportation of the House of Representatives:

State	Percentage
Alaska	5.4449
Delaware	7.1459
District of Columbia	12.8612
Idaho	.3416
Montana	10.8755
Nevada	6.1352
New Mexico	8.4057
North Dakota	13.4733
South Dakota	9.0178
Utah	3.8648
Vermont	8.2206
Wyoming	14.2135
Total	100.00

§ 35.912 Delegation to State agencies.

EPA's policy is to maximize the use of staff capabilities of State agencies. Therefore, in the implementation of the construction grant program, optimum use will be made of available State and Federal resources. This will eliminate unnecessary duplicative reviews of documents required in the processing of construction grant awards. Accordingly, the Regional Administrator may enter into a written agreement, where appropriate, with a State agency to authorize the State agency's certification of the technical or administrative adequacy of specifically required documents. The agreement may provide for the review and certification of elements of: (a) Facilities plans (step 1), (b) plans and specifications (step 2), (c) operation and maintenance manuals, and (d) such other elements as the Regional Administrator determines may be appropriately delegated as the program permits and State competence allows. The agreement will define requirements which the State will be expected to fulfill as part of its general responsibilities for the conduct of an effective preaward applicant assistance program; compensation for this program is the responsibility of the State. The agreement will also define specific duties regarding the review of identified documents prerequisite to the receipt of grant awards. A certification agreement must provide that an applicant or grantee may request review by the Regional Administrator of an adverse recommendation by a State agency. Delegation activities are compensable by EPA only under section 106 of the Act or subpart F of this part.

§ 35.915 State priority system and project priority list.

Construction grants will be awarded from allotments according to the State priority list, based on the approved State priority system. The State priority system and list must be designed to achieve optimum water quality management consistent with the goals and requirements of the Act.

(a) *State priority system.* The State priority system describes the methodology used to rate and rank projects that are considered eligible for assistance. It also sets forth the administrative, management, and public participation procedures required to develop and revise the State project priority list. In developing its annual priority list, the State must consider the construction grant needs and priorities set forth in certified and approved State and areawide water quality management (WQM) plans. The State shall hold a public hearing before submission of the priority system (or revision thereto). Before the hearing, a fact sheet describing the proposed system (including rating and ranking criteria) shall be distributed to the public. A summary of State responses to public comment and to any public hearing testimony shall be prepared and included in the priority system submission. The Regional Administrator shall review and approve the State priority system for procedural completeness, insuring that it is designed to obtain compliance with the enforceable requirements of the Act as defined in § 35.905. The Regional Administrator may exempt grants for training facilities under section 109(b)(1) of the Act and § 35.930-1(b) from these requirements.

(1) *Project rating criteria.* (i) The State priority system shall be based on the following criteria:

- (A) The severity of the pollution problem;
- (B) The existing population affected;
- (C) The need for preservation of high quality waters; and
- (D) At the State's option, the specific category of need that is addressed.

(ii) The State will have sole authority to determine the priority for each category of need. These categories comprise mutually exclusive classes of facilities and include:

- (A) Category I—Secondary treatment;
- (B) Category II—More stringent treatment;
- (C) Category IIIA—Infiltration/inflow correction;
- (D) Category IIIB—Sewer system replacement or major rehabilitation;
- (E) Category IVA—New collectors and appurtenances;
- (F) Category IVB—New interceptors and appurtenances; and
- (G) Category V—Correction of combined sewer overflows.

(iii) Step 2, step 3 and step 2+3 projects utilizing processes and techniques meeting the innovative and alternative guidelines in appendix E of this part may receive higher priority. Also 100 percent grants for projects that modify or replace malfunctioning treatment works constructed with an

85 percent grant may receive a higher priority.

(iv) Other criteria, consistent with these, may be considered (including the special needs of small and rural communities). The State shall not consider the project area's development needs not related to pollution abatement, the geographical region within the State, or future population growth projections.

(2) *Criteria assessment.* The State shall have authority to determine the relative influence of the rating criteria used for assigning project priority. The criteria must be clearly delineated in the approved State priority system and applied consistently to all projects. A project on the priority list shall generally retain its priority rating until an award is made.

(b) *State needs inventory.* The State shall maintain a listing, including costs by category, of all needed treatment works. The most recent needs inventory, prepared in accordance with section 516(b)(1)(B) of the Act, should be used for this purpose. This State listing should be the same as the needs inventory and fulfills similar requirements in the State WQM planning process. The State project priority list shall be consistent with the needs inventory.

(c) *State project priority list.* The State shall prepare and submit annually a ranked priority listing of projects for which Federal assistance is expected during the 5-year planning period starting at the beginning of the next fiscal year. The list's fundable portion shall include those projects planned for award during the first year of the 5-year period (hereinafter called the funding year). The fundable portion shall not exceed the total funds expected to be available during the year less all applicable reserves provided in § 35.915-1 (a) through (d). The list's planning portion shall include all projects outside the fundable portion that may, under anticipated allotment levels, receive funding during the 5-year period. The Administrator shall provide annual guidance to the States outlining the funding assumptions and other criteria used in developing the 5-year priority list.

(1) *Project priority list development.* The development of the project priority list shall be consistent with the rating criteria established in the approved priority system, in accordance with the criteria in paragraph (a)(1) of this section. In ranking projects, States must also consider the treatment works and step sequence, the allotment deadline, total funds available, and other management criteria in the approved State priority system. In developing its annual priority list, the State must consider the construction grant needs and priorities set forth in

certified and approved State and areawide WQM plans. The Regional Administrator may request that a State provide justification for the rating or ranking established for specific project(s).

(2) *Project priority list information.* The project priority list shall include the information for each project that is set out below for projects on the fundable portion of the list. The Administrator shall issue specific guidance on these information requirements for the planning portion of the list, including phase-in procedures for the fiscal year 1979 priority planning process.

(i) State assigned EPA project number;

(ii) Legal name and address of applicant;

(iii) Short project name or description;

(iv) Priority rating and rank of each project, based on the approved priority system;

(v) Project step number (step 1, 2, 3, or 2+3);

(vi) Relevant needs authority/facility number(s);

(vii) NPDES number (as appropriate);

(viii) Parent project number (i.e., EPA project number for predecessor project);

(ix) For step 2, 3, or 2+3 projects, indication of alternative system for small community;

(x) For step 2, 3, or 2+3 projects, that portion (if any) of eligible cost to apply to alternative techniques;

(xi) For step 2, 3, or 2+3 projects, that portion (if any) of eligible cost to apply to innovative processes;

(xii) For step 3 or 2+3 projects, the eligible costs in categories IIIB, IV, and V (see § 35.915(a)(1)(ii));

(xiii) Total eligible cost;

(xiv) Date project is expected to be certified by State to EPA for funding;

(xv) Estimated EPA assistance (not including potential grant increase from the reserve in § 35.915-1(b)); and

(xvi) Indication that the project does or does not satisfy the enforceable requirements provision, including (as appropriate) funding estimates for those portions which do not meet the enforceable requirements of the Act.

(d) *Public participation.* Before the State submits its annual project priority list to the Regional Administrator, the State shall insure that adequate public participation (including a public hearing) has taken place as required by subpart G of this part. Before the public hearing, the State shall circulate information about the priority list including a description of each proposed project and a statement concerning whether or not it is necessary to meet the enforceable requirements of the Act. The information on the

proposed priority list under paragraph (c)(2) of this section may be used to fulfill these requirements. This public hearing may be conducted jointly with any regular public meeting of the State agency. The public must receive adequate and timely statewide notice of the meeting (including publication of the proposed priority list) and attendees at the meeting must receive adequate opportunity to express their views concerning the list. Any revision of the State priority list (including project bypass and the deletion or addition of projects) requires circulation for public comment and a public hearing unless the State agency and the Regional Administrator determine that the revision is not significant. The approved State priority system shall describe the public participation policy and procedures applicable to any proposed revision to the priority list.

(e) *Submission and review of project priority list.* The State shall submit the priority list as part of the annual State program plan under subpart G of this part. A summary of State agency response to public comment and hearing testimony shall be prepared and submitted with the priority list. The Regional Administrator will not consider a priority list to be final until the public participation requirements are met and all information required for each project has been received. The Regional Administrator will review the final priority list within 30 days to insure compliance with the approved State priority system. No project may be funded until this review is complete.

(f) *Revision of the project priority list.* The State may modify the project priority list at any time during the program planning cycle in accordance with the public participation requirements and the procedures established in the approved State priority system. Any modification (other than clerical) to the priority list must be clearly documented and promptly reported to the Regional Administrator. As a minimum, each State's priority list management procedure must provide for the following conditions:

(1) *Project bypass.* A State may bypass a project on the fundable portion of the list after it gives written notice to the municipality and the NPDES authority that the State has determined that the project to be bypassed will not be ready to proceed during the funding year. Bypassed projects shall retain their relative priority rating for consideration in the future year allotments. The highest ranked projects on the planning portion of the list will replace bypassed projects. Projects considered for funding in accordance with this provision

must comply with paragraph (g) of this section.

(2) *Additional allotments.* If a State receives any additional allotment(s), it may fund projects on the planning portion of the priority list without further public participation if:

(i) The projects on the planning portion have met all administrative and public participation requirements outlined in the approved State priority system; and

(ii) The projects included within the fundable range are the highest priority projects on the planning portion.

If sufficient projects that meet these conditions are not available on the planning portion of the list, the State shall follow the procedures outlined in paragraph (e) of this section to add projects to the fundable portion of the priority list.

(3) *Project removal.* A State may remove a project from the priority list only if:

(i) The project has been fully funded;

(ii) The project is no longer entitled to funding under the approved priority system;

(iii) The Regional Administrator has determined that the project is not needed to comply with the enforceable requirements of the Act; or

(iv) The project is otherwise ineligible.

(g) *Regional Administrator review for compliance with the enforceable requirements of the Act.* (1) Unless otherwise provided in paragraph (g)(2) of this section, the Regional Administrator may propose the removal of a specific project or portion thereof from the State project priority list during or after the initial review where there is reason to believe that it will not result in compliance with the enforceable requirements of the Act. Before making a final determination, the Regional Administrator will initiate a public hearing on this issue. Questioned projects shall not be funded during this administrative process. Consideration of grant award will continue for those projects not at issue in accordance with all other requirements of this section.

(i) The Regional Administrator shall establish the procedures for the public notice and conduct of any such hearing, or, as appropriate, the procedures may be adapted from existing agency procedures such as § 6.400 or §§ 123.32 and 123.34 of this chapter. The procedures used must conform to minimum Agency guidelines for public hearings under part 25 of this chapter.

(ii) Within 30 days after the date of the hearing, the Regional Administrator shall transmit to the appropriate State agency a written determination about the questioned projects. If the Regional Administrator determines

that the project will not result in compliance with the enforceable requirements of the Act, the State shall remove the project from the priority list and modify the priority list to reflect this action. The Regional Administrator's determination will constitute the final agency action, unless the State or municipality files a notice of appeal under part 30, subpart J of this subchapter.

(2) The State may use 25 percent of its funds during each fiscal year for projects or portions of projects in categories IIIB, IVA, IVB, and V (see § 35.915(a)(1)(ii)). These projects must be eligible for Federal funding to be included on the priority list. EPA will generally not review these projects under paragraph (g)(1) of this section to determine if they will result in compliance with the enforceable requirements of the Act. The Regional Administrator will, however, review all projects or portions thereof which would use funds beyond the 25-percent level according to the criteria in paragraph (g)(1) of this section.

(h) *Regional Administrator review for eligibility.* If the Regional Administrator determines that a project on the priority list is not eligible for assistance under this subpart, the State and municipality will be promptly advised and the State will be required to modify its priority list accordingly. Elimination of any project from the priority list shall be final and conclusive unless the State or municipality files a notice of appeal under part 30, subpart J of this subchapter.

§ 35.915-1 Reserves related to the project priority list.

In developing the fundable portion of the priority list, the State shall provide for the establishment of the several reserves required or allowed under this section. The State shall submit a statement specifying the amount to be set aside for each reserve with the final project priority list.

(a) *Reserve for State management assistance grants.* The State may (but need not) propose that the Regional Administrator set aside from each allotment a reserve not to exceed 2 percent or \$400,000, whichever is greater, for State management assistance grants under subpart F of this part. Grants may be made from these funds to cover the reasonable costs of administering activities delegated to a State. Funds reserved for this purpose that are not obligated by the end of the allotment period will be added to the amounts last allotted to a State. These funds shall be immediately available for obligation to projects in the same manner and to the same extent as the last allotment.

(b) *Reserve for innovative and alternative technology project grant in-*

crease. Each State shall set aside from its annual allotment a specific percentage to increase the Federal share of grant awards from 75 percent to 85 percent of the eligible cost of construction (under § 35.908(b)(1)) for construction projects which use innovative or alternative waste water treatment processes and techniques. The set-aside amount shall be 2 percent of the State's allotment for each of fiscal years 1979 and 1980, and 3 percent for fiscal year 1981. Of this amount not less than one-half of 1 percent of the State's allotment shall be set aside to increase the Federal grant share for projects utilizing innovative processes and techniques. Funds reserved under this section may be expended on projects for which facilities plans were initiated before fiscal year 1979. These funds shall be reallocated if not used for this purpose during the allotment period.

(c) *Reserve for grant increases.* The State shall set aside not less than 5 percent of the total funds available during the priority list year for grant increases (including any funds necessary for development of municipal pretreatment programs) for projects awarded assistance under § 35.935-11. The funds reserved for this purpose shall be reallocated if not obligated. Therefore, if they are not needed for grant increases they should be released for funding additional projects before the reallocation deadline.

(d) *Reserve for step 1 and step 2 projects.* The State may (but need not) set aside up to 10 percent of the total funds available in order to provide grant assistance to step 1 and step 2 projects that may be selected for funding after the final submission of the project priority list. The funds reserved for this purpose shall be reallocated if not obligated. Therefore, they should be released for funding additional projects before the reallocation deadline.

(e) *Reserve for alternative systems for small communities.* Each State with a rural population of 25 percent or more (as determined by population estimates of the Bureau of Census) shall set aside an amount equal to 4 percent of the State's annual allotment, beginning with the fiscal year 1979 allotment. The set-aside amount shall be used for funding alternatives to conventional treatment works for small communities. The Regional Administrator may authorize, at the request of the Governor of any non-rural State, a reserve of up to 4 percent of that State's allotment for alternatives to conventional treatment works for small communities. For the purposes of this paragraph, the definition of a small community is any municipality with a population of 3,500 or less, or highly dispersed sections of

larger municipalities, as determined by the Regional Administrator. In States where the reserve is mandatory, these funds shall be reallocated if not obligated during the allotment period. In States where the reserve is optional, these funds should be released for funding projects before the reallocation deadline.

§ 35.917 Facilities planning (step 1).

(a) Sections 35.917 through 35.917-9 establish the requirements for facilities plans.

(b) Facilities planning consists of those necessary plans and studies which directly relate to the construction of treatment works necessary to comply with sections 301 and 302 of the Act. Facilities planning will demonstrate the need for the proposed facilities. Through a systematic evaluation of feasible alternatives, it will also demonstrate that the selected alternative is cost-effective, i.e., is the most economical means of meeting established effluent and water quality goals while recognizing environmental and social considerations. (See appendix A to this subpart.)

(c) EPA requires full compliance with the facilities planning provisions of this subpart before award of step 2 or step 3 grant assistance. (Facilities planning initiated before May 1, 1974, may be accepted under regulations published on February 11, 1974, if the step 2 or step 3 grant assistance is awarded before April 1, 1980.)

(d) Grant assistance for step 2 or step 3 may be awarded before approval of a facilities plan for the entire geographic area to be served by the complete waste treatment system of which the proposed treatment works will be an integral part if:

(1) The Regional Administrator determines that applicable statutory requirements have been met (see §§ 35.925-7 and 35.925-8); that the facilities planning related to the proposed step 2 or step 3 project has been substantially completed; and that the step 2 or step 3 project for which grant assistance is made will not be significantly affected by the completion of the facilities plan and will be a component part of the complete system; and

(2) The applicant agrees to complete the facilities plan on a schedule the State accepts (subject to the Regional Administrator's approval); the schedule shall be inserted as a special condition in the grant agreement.

(e) Facilities planning may not be initiated before award of a step 1 grant or written approval of a plan of study (see § 35.920-3(a)(1)) accompanied by reservation of funds for a step 1 grant (see §§ 35.925-18 and 35.905). Facility planning must be based on load allocations, delineation of facility

planning areas and population projection totals and disaggregations in approved water quality management (WQM) plans. (See paragraph 8a(3) of appendix A.) After October 1, 1979, the Regional Administrator shall not approve grant assistance for any project under this subpart if such facility-related information is not available in an approved WQM plan, unless the Regional Administrator determines, in writing, based on information submitted by the State or the grantee, that the facility-related information was not within the scope of the WQM work program, or that award of the grant is necessary to achieve water quality goals of the Act.

(f) If the information required as part of a facilities plan has been developed separately, the facilities plan should incorporate it by reference. Planning which has been previously or collaterally accomplished under local, State, or Federal programs will be utilized (not duplicated).

§ 35.917-1 Content of facilities plan.

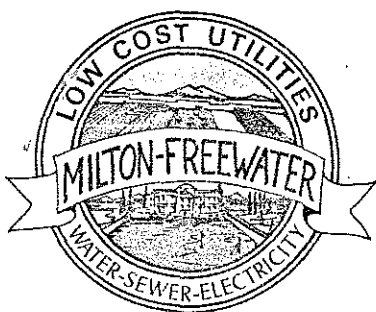
Facilities planning must address each of the following to the extent considered appropriate by the Regional Administrator:

(a) A description of the treatment works for which construction drawings and specifications are to be prepared. This description shall include preliminary engineering data, cost estimates for design and construction of the treatment works, and a schedule for completion of design and construction. The preliminary engineering data may include, to the extent appropriate, information such as a schematic flow diagram, unit processes, design data regarding detention times, flow rates, sizing of units, etc.

(b) A description of the selected complete waste treatment system(s) of which the proposed treatment works is a part. The description shall cover all elements of the system, from the service area and collection sewers, through treatment, to the ultimate discharge of treated wastewaters and management and disposal of sludge. Planning area maps must include major components of existing and proposed treatment works. For individual systems, planning area maps must include those individual systems which are proposed for funding under § 35.918.

(c) Infiltration/inflow documentation in accordance with § 35.927 et seq.

(d) A cost-effectiveness analysis of alternatives for the treatment works and for the complete waste treatment system(s) of which the treatment works is a part. The selection of the system(s) and the choice of the treatment works for which construction drawings and specifications are to be prepared shall be based on the results



Since 1889

CITY OF
MILTON-FREEWATER

P.O. Box 108 · Milton-Freewater, Ore. 97862 · Phone 503-938-5531

October 12, 1979

Office Of
City Manager

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

Management Services Div.
Dept. of Environmental Quality

RECEIVED
OCT 15 1979

Attention: Joe B. Richards

Re: Proposed Fiscal Year 1980 Priority List

October 18th Public Hearing.

Gentlemen:

The City of Milton-Freewater is proposed for a priority ranking of No.90 on the fiscal year '80 Priority List. We have one concern, and objection, which led to this ranking. We believe that in fact our ranking on that list should be somewhat higher in priority, (lower in number).

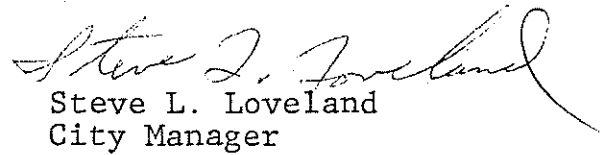
Our concern relates to the stream segment ranking, as computed for the Milton-Freewater project. The Walla Walla River Basin Rank is number 16, statewide. The total population shown for the Walla Walla Basin is 10,300. As previously pointed out (July 28, 1977) the population of this basin is significantly higher. We have previously documented a population in that basin in excess of 54,000. Therefore the proper Basin Rank applied to the Walla Walla River Basin should be No. 8. When this proper ranking is applied to the stream segment point ranking formula, we compute that the stream segment points would increase to 34 instead of the 18 shown for Milton-Freewater. This gives the Milton-Freewater proposal a point total of 141.33. Assuming no other changes in the Priority List, Milton-Freewater should have a relative priority number of No. 83.

We would respectfully request that the Milton-Freewater ranking be revised in accordance with these calculations. We are simply contending that the DEQ criteria be uniformly and fairly applied to all applicants in the State. We are sure that the Environmental Protection Agency would concur with our position. If DEQ does not see fit to revise the Milton-Freewater ranking as requested herein, we would respectfully request an opportunity to review the reasons for the denial.

Environmental Quality Commission
October 12, 1979
Page 2

Your attention to this matter and efforts on behalf of local governments in the State Of Oregon are sincerely appreciated. If you should have any questions on this or if I can be of any assistance to you, please don't hesitate to contact me.

Yours very truly,


Steve L. Loveland
City Manager

SLL:pb



Portland General Electric Company

James W. Durham Vice President and General Counsel

October 18, 1979

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
R E C E I V E D
OCT 19 1979

Joe B. Richards, Esq.
Chairman
Environmental Quality Commission
522 S. W. Fifth Avenue
Portland, Oregon 97204

OFFICE OF THE DIRECTOR

Dear Chairman Richards,

On October 17, 1979, the Department of Environmental Quality issued a special permit pursuant to OAR 340-14-050 authorizing Portland General Electric Company to operate the Bethel combustion turbine facility under certain conditions. A copy of this permit is enclosed for your consideration.

As noted therein, the permit responded to a letter application by Portland General Electric Company under date of October 12, 1979. The application and certain additional material requested by the Department of Environmental Quality in supplement thereof are also enclosed for your information.

As will be further noted from the permit, the Director did not believe it would be appropriate for him to grant the permit for any term beyond the earlier of November 1, 1979 or the return of the Trojan Nuclear Plant to operation unless the matter first be considered by the Environmental Quality Commission.

In view of the concern expressed by the Department, we would respectfully request the Environmental Quality Commission now ~~to~~ consider extending the term of the special permit of October 17, 1979 to the later of either the full sixty days permitted under OAR 340-14-050 or until the supply of natural gas available for use at Bethel is exhausted. We believe such an extension is in the public interest.

The power supply outlook for the next several months is of grave concern to PGE. The Trojan plant is presently out of service and any continuation of the current outage will tend to worsen the outlook.

Portland General Electric Company

The problem results from the anticipated need for substantial quantities of generation in addition to the sources normally utilized by the company. Even after use of all energy purchases and exchanges estimated to be available there still remains a major need for energy from PGE combustion turbines. This basically means consumption of large amounts of No. 2 distillate oil.

Our current supply of such fuel on hand would allow for up to a month's operation of the Bethel combined cycle combustion turbine generating plant. Such fuel is in short supply, however, even more so in view of the required sulfur content. We are unable to state with assurance that we will be able to obtain timely replacement of our present oil stock when depleted. It is highly desirable that this oil be conserved for later this winter season.

So far during the present Trojan outage we have been able to barely meet our load requirements by drawing on energy credits that were built up in anticipation of the outage. Also, we have met part of our obligations by borrowing with future commitments to return such energy. In addition, we are purchasing energy from all possible sources including California, Utah, Idaho, British Columbia and are even having a combustion turbine plant in Spokane, Washington run for our account.

We can probably continue a few days longer before being forced to go to operation of oil-fired combustion turbines. However, any additional energy produced by our system at this time will allow us to conserve our energy accounts, thus delaying oil consumption awhile longer.

In this connection, natural gas is currently available in amounts that could be used to operate combustion turbine units of the type installed at our Bethel and Harborton plants. The availability of this gas can be expected to deteriorate shortly as we move into the heating season, although there remains a possibility of some availability from time to time thereafter. Use of this gas supply, while available, would mean a significant enhancement of our ability to meet system load requirements from oil-fired generation later this winter.

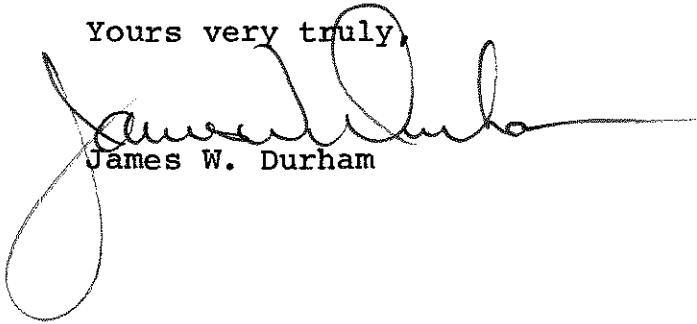
In our application of October 12, 1979 we requested a waiver of condition 9a of Air Contaminant Discharge Permit No. 24-2318. The Department granted only a waiver of condition 9a (1). A waiver of all of condition 9a is essential as we are now meeting current obligations by borrowing power which is repayable in kind in the near future and during times when the only available resource for repayment may be combustion turbines.

We earnestly ask that you consider this matter at the earliest possible opportunity. If possible, we would request a consideration of the same at your October 19, 1979 meeting in Portland.

Portland General Electric Company

In order that the Commission may have the benefit of the views of others, we have taken the liberty of notifying Mr. and Mrs. Frady and their associates of our intent to present the matter to you this Friday. We are also making a copy of this request presently available to the Department of Environmental Quality.

Yours very truly,

A handwritten signature in black ink, appearing to read "James W. Durham". The signature is fluid and cursive, with a large loop at the beginning and a long horizontal stroke extending to the right.

James W. Durham



Department of Environmental Quality

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229- 5395

October 17, 1979

James W. Durham, Esq.
Portland General Electric Co.
121 S. W. Salmon Street
Portland, Oregon 97204

Dear Mr. Durham:

Pursuant to your October 12, 1979, letter application for a special permit to be issued pursuant to OAR 340-14-050, to modify PGE's Air Contaminant Discharge Permit 24-2318, as to condition 9 a. (1) thereof, this letter is being issued to PGE to permit operation of the Bethel combustion turbine facility on natural gas, subject to the following conditions:

1. This permit shall be effective immediately and shall continue in effect until PGE's Trojan Nuclear Plant, presently shut down for repairs, is returned to operation or November 1, 1979, whichever is the earlier.
2. All conditions of PGE's Air Contaminant Permit 24-2318, other than condition 9 a. (1), shall remain in full force and effect.

If PGE desires to operate the Bethel turbines for a longer period or under other conditions than authorized herein, it would be appropriate, in my view, to submit such further application to the Environmental Quality Commission, considering the Commission's prominent role in arriving at the operating conditions and limitations contained in your current Bethel permit.

Sincerely,

William H. Young
Director

EJW:jas



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DEQ-1

RECEIVED
OCT 17 1979
JAMES W. DURHAM
Vice President
and General Counsel

A F F I D A V I T

STATE OF OREGON)
) SS
COUNTY OF MULTNOMAH)

I, Glen E. Bredemeier, being first duly sworn, depose and say: I am the Vice President of Portland General Electric Co. responsible for fuel operations.

PGE's present stock of No. 2 distillate fuel oil for use in combustion turbines totals about 470,000 bbls of which 435,000 is in storage at Beaver. We continue to acquire small volume lots when available.

In August we went out for bid on a proposed purchase of 240,000 barrels or any portion thereof, to be delivered no later than November 1. None of the 22 firms from whom bids were solicited responded affirmatively. Since then we have had a few offers for fuel which resulted in the purchase and receipt from one supplier of 85,000 barrels. Other offers did not materialize. We expected to be able to purchase 235,000 bbls prior to September 1 under an existing contract, but the supplier has not been able to perform to date. We have continued to sample the market, but we, in conjunction with two other utilities, have been unable to obtain commitment for a volume shipment.

Our sampling of the market reflects that some potential suppliers are willing to locate on a best efforts basis, volume cargoes. These people are optimistic that fuel can be found on the spot market, particularly if the sulphur specification could be relaxed, but none have offered to make a firm commitment. In view of our experience to date we are unable to state with assurance that we will be able to obtain timely replacement of our present oil stock when depleted.

Glen E. Bredemeier
Glen E. Bredemeier, Vice President

Subscribed and sworn to before me, a Notary Public for Oregon, this 16th day of October, 1979.

Regina A. Hanson
July 5, 1983
My Commission Expires

INTER-OFFICE COMMUNICATION
PORTLAND GENERAL ELECTRIC COMPANY

Date 10-15-79

To G. E. Bredemeier

From J. T. Owens



Subject Turbine Fuel - Sulfur Specifications

In an attempt to better define the affect of sulfur specification on turbine fuel availability, Fuel Operation Dept contacted three past suppliers. All felt that relaxing the sulfur specification to industry standards would increase the possible sources of supply. Estimates ranged from 25 to 50%. In addition, lead times to obtain fuel would be somewhat reduced.

ARCO flatly stated that the possibility of their producing PGE specification fuel is rather remote without special refinery runs. ARCO further stated that they had no fuel available. McCall Oil and Chemical and Western Oil Market both were willing to attempt to locate 100,000 bbls of cargo but gave no assurance that this fuel could actually be delivered. No suppliers had any assurances on delivery of fuel later this winter.

JTO/slc

NORTHWEST



NATURAL GAS COMPANY

SUITE 1900
200 SOUTHWEST MARKET STREET, PORTLAND, OREGON 97201

ROGER L. CONKLING
Senior Vice President

October 16, 1979

Mr. Glen Bredemeier
Vice President
Portland General Electric Company
121 Southwest Salmon Street
Seventeenth Floor
Portland, Oregon 97204

Dear Mr. Bredemeier:

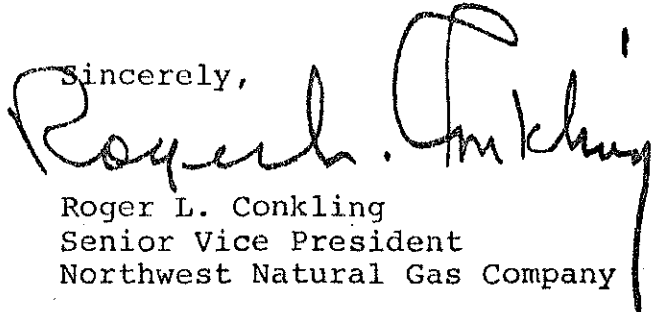
Confirming my verbal response to your inquiry of some days ago with respect to service by Northwest Natural Gas Company to your Bethel combustion turbine generating plant and/or your Harborton combustion turbine generating plant, subject to the approval of the Public Utility Commissioner of Oregon, Northwest Natural will:

- 1) Extend the term of the Service Agreement executed on August 1, 1979 for your Bethel plant from its present expiration date of September 30, 1979 to such later date as will cover the period specified for operation of the plant in the permit authorizing such operation.
- 2) Expand the Service Agreement of August 1, 1979 to include your Harborton plant in addition to the Bethel plant, to be effective over the same period as specified under 1) above, with appropriate revisions of the provisions relating to the Monthly Standby Charge, maximum rates of take and like matters. With respect to such revisions, the agreement executed on August 25, 1977 will provide a pattern.
- 3) Substitute service to the Harborton plant for service to the Bethel plant, with appropriate revisions of the Service Agreement, if it is decided to operate the former plant only.

Mr. Glen Bredemeier
Vice President
October 16, 1979
Page Two. . .

The availability of gas in the ensuing winter season months is uncertain, since this is the period in which we experience increasingly heavy heating demands and are required from time to time to curtail service to our interruptible customers. For this coming season, we are forecasting that such interruptible customers will receive approximately the equivalent of 15 to 20 days of 100 percent curtailment. This means there will be some interruptible customer curtailment over approximately 65 days under normal weather conditions, in which days we would be unable to provide any gas for your plants. In sum, while our ability to supply the fuel requirements for either or both of your plants may vary from 100 percent to zero over the forthcoming months, on many days we will be able to provide very substantial volumes. In summer months, of course, we can supply a very high quality of service throughout.

Sincerely,



Roger L. Conkling
Senior Vice President
Northwest Natural Gas Company

RLC/bt



Portland General Electric Company

James W. Durham Vice President and General Counsel

October 12, 1979

Mr. William H. Young
Director
Department of Environmental Quality
Yeon Building
Portland, Oregon 97204

Dear Mr. Young:

Pursuant to OAR 340-14-050 Portland General Electric Company hereby applies for a Special Permit modifying Special Condition 9 of Air Contaminant Permit 24-2318 to permit operation of the Bethel Combustion Turbine facility on natural gas during the Company's current power situation.

The current situation is in part due to the shutdown of the Company's Trojan Nuclear Plant for repairs this Friday. Return of this Plant to service, however, will not alleviate the problem under current water conditions. As you will note from the enclosed memorandum to me from Mr. Bredemeier of October 11, 1979, the Company faces deficits of 295 megawatts for the two week period commencing October 10, 1979, a 515 megawatt deficit for the following week, and 367 megawatt deficit in November even with Trojan in service.

Our Beaver facility has no capability for operation on natural gas. The Company does have some oil available at Beaver and could now generate with this facility to reduce the above deficit. Natural gas is now plentiful. It probably will not be available later this year when Northwest Natural Gas Company is required to meet its winter heating loads. Oil is now in short supply. Future availability is uncertain. Our Fuels Manager, Mr. J. T. Owens, has reviewed the situation and his memorandum of October 11, 1979 is attached for your review.

In view of the current availability of natural gas, prudence dictates the use of that fuel now and a saving of existing oil, when possible, for times when gas is not. Our Bethel facility can be operated on natural gas. As mentioned above,

Portland General Electric Company

Mr. William H. Young
Page Two
October 12, 1979

our Beaver facility cannot. Special Condition No. 9 of Air Contaminant Permit 24-2318 mandates Beaver must be operated and its oil source exhausted before Bethel may operate. Special Condition No. 9 was imposed at a time when it was felt the nation was running out of natural gas and the operation of Bethel and Beaver on oil was assumed. The exact reverse situation has now occurred.

We believe the present situation is an unexpected activity or operation within the meaning of your regulations justifying suspension of Special Condition No. 9. For your convenience I am enclosing a copy of Mr. Hastings' memorandum to me reviewing your authority to grant the modification which I believe amply supports your right to promptly act on our request.

We would appreciate favorable consideration of our application to modify our Bethel Air Contaminant Permit to permit us to operate this facility on natural gas without reference to whether our oil fired resources have been first exhausted. In view of the term of a Special Permit, we presume an NO_x control system would not be required presently. The required filing fee accompanies this letter.

If there is anything further you need in the way of additional information or if there is anything further I can do to be of assistance to you, please do not hesitate to call upon me.

Yours sincerely,



James W. Durham

sk

OCT 11 1979

JAMES W. DURHAM
Vice President
and General Counsel

October 11, 1979

MEMORANDUM

TO: J. W. Durham

FROM: G. E. Bredemeier

SUBJECT: Power Supply Situation

Pursuant to our discussion of power supply in connection with the pending Trojan outage, I have attached a tabulation which summarizes the outlook for the rest of this month and includes the comparative information for November which has previously been supplied the PUC. You will note that after making use of all of the resources that we currently estimate to be available, there is still a significant balance of energy required which it appears may have to be produced by combustion turbines.

Our present supply of distillate oil for use in combustion turbines totals about 470,000 barrels of which about 435,000 is in storage at Beaver. Our policy is to analyze on a continuing basis both the load-resource situation and the availability of oil in determining the amount of oil which should be in storage at any time. In view of the way the situation has deteriorated in the last month or two, our current inventory should probably be twice what it is.

Also attached is a memorandum summarizing the situation with respect to availability of oil purchases. It is anything but an encouraging outlook.



PORTLAND GENERAL ELECTRIC COMPANY

Energy Projection - Trojan Outage

	<u>Two Weeks</u> <u>Beginning 10/12</u>	<u>Outage for</u> <u>Third Week</u>	<u>November</u> <u>(Case 46J)</u>
Load Forecast ^{1/}	1433	1490	1823
Hydro	516	554	643
Hanford-CSPE (BPA)	239	211	196
Centralia	15	15	28
Miscellaneous - Net ^{2/}	-20	-19	-31
Trojan	0	0	620
Montana Exchange	80	80	0
Storage Return	182	0	0
B. C. Hydro	126	134	0
Subtotal Resources	1138	975	1456
Balance Required	295	515	367

^{1/} October load forecast - 1582 MW
October last year - 1427 MW

^{2/} There is some possibility of additional purchases at 40-64 mills.

10-11-79

INTER-OFFICE COMMUNICATION
PORTLAND GENERAL ELECTRIC COMPANY

Date 10-11-79

To G. E. Bredemeier

From J. T. Owens *JTO*

Subject Combustion Turbine Fuel

Combustion turbine fuel has not been available in significant quantities in recent months. PGE solicited bids for fuel in late August. Of the 22 requests, 14 companies responded with "no bid". Eight companies did not respond at all. No fuel was offered in response to this bid request. Two lots totaling 85,000 bbls were purchased in August/September. Smaller lots totaling 35,000 bbls have been purchased in September/October. Both Puget Sound Power & Light and Pacific Power & Light have been actively seeking large volumes of oil for a least a month. All large potential offerings have fallen through. Union Oil stated today that they were allocating customers of record at an 83% fraction. PGE is not a customer of record and therefore is unable to purchase from Union Oil at this time.

Combustion turbine fuel availability to PGE is strongly dependent on the supply/demand conditions in oil spot markets. Distillate demand is a function of weather (heating oil season), (farm planting/harvest), transportation and combustion turbine fuel purchases. The heating season in the Northwest is approaching. If we have a long cold winter, demand will be high for heating oil. Supply is a function of the world crude situation and how the major oil companies allocate crude and petroleum products. The spot market supply shows strong potential for tightening. Availability of oil to PGE later this fall is far from certain. Delivering large quantities (100,000 bbls) will take at least 6 to 8 weeks and more likely longer if the product is available at all.

PGE's supply is also limited by sulfur specification. In our recent request of bids, several suppliers cited the sulfur specification as a partial reason for not bidding. Refiners produce product to meet the standard specification of 0.5%. They produce lower sulfur material only when their crude slates con-

tain substantial low sulfur crude. Low sulfur crude is not plentiful on the West Coast. When supplies diminish, less product trading occurs in the oil markets. This limits PGE's suppliers' flexibility in trading product to obtain 0.3% sulfur material.

Projections of oil usage involve a high degree of uncertainty. Normal changes in the regional generation capacity are large compared to turbine capacity and therefore greatly affect the need for turbine generation. The regional system is influenced by weather and plant outages. Weather affects both the hydro resources and system demand. PGE projections of oil needs for 1980-81 range from 0 to 1,700,000 bbls/year. Best estimates (with a high degree of uncertainty) are 400,000 to 500,000 bbls (1980) and 300,000 to 400,000 bbls (1981). PGE's oil inventory to meet this uncertainty should be approximately 900,000 bbls. Information on this inventory level has been presented to Oregon State officials.

JTO/slc

INTER-OFFICE COMMUNICATION
PORTLAND GENERAL ELECTRIC COMPANY

Date October 12, 1979

To James W. Durham

From Warren Hastings

Subject Bethel Air Contaminant Permit

I promised to provide you a Brief relating to the authority of the Director of the Department of Environmental Quality to modify the existing air contaminant permit for our Bethel combustion turbine facility. Before going into the applicable statutes and regulations, I would point out the condition we are requesting modification of first appeared in a permit granted by Mid-Willamette Air Pollution Authority shortly before it was dissolved and its duties assumed by the Department of Environmental Quality. A copy of the Mid-Willamette Air Pollution Authority Permit is enclosed. Note Condition 5. The existing permit issued by the Department tracks this prior permit and was issued as a renewal or replacement of it. We are seeking modification of that portion of the permit which allows us to operate the Bethel facility only after all of our other available resources have been exhausted. I do not believe you will find anything in the regulations of the Mid-Willamette Air Pollution Authority justifying this requirement. In reviewing the regulations of the Department of Environmental Quality, I have also been unable to find any standard or regulation which similarly would justify imposition of the foregoing requirement, particularly in view of the fact that the Bethel facility meets all emission requirements, violates no air quality standard, and can be operated within the presently imposed state noise limitations.

I am sure that you are familiar with such cases as Sun Ray Dairy vs. Oregon Liquor Control Commission, 16 Or. App. 63, 517 P.2d 289, McCann vs. Oregon Liquor Control Commission, 27 Or. App. 487, 556 P.2d 973, Marbet vs. Portland General Electric Co., 277 Or. 447, 561 P.2d 154, and the many cases which have been decided by the Oregon Supreme Court and Oregon Court of Appeals following these precedents which generally hold an administrative agency in granting permits or imposing conditions therein must

James W. Durham
Page Two
October 12, 1979

first with prior notice to the public establish adequate standards to justify any action taken. As I mentioned previously, I have found nothing in the regulations of either the Mid-Willamette Air Pollution Authority or the Department of Environmental Quality giving either any right to impose the restriction in question on Bethel's operation.

Air contaminant permits are required by ORS 468.310. The discharge of air contaminants without a permit is prohibited by ORS 468.315. ORS 468.275 through 468.345 generally provides the Environmental Quality Commission may, by rule, require air contaminant permits, establish air quality standards, classify air contaminant sources, grant variances, and regulate new construction. Other than in cases of new construction where it would appear the Department of Environmental Quality and the Environmental Quality Commission share joint responsibility, the responsibility for the granting, denial, modification, suspension and revocation of permits has been specifically delegated by the Legislature to the Department of Environmental Quality. See ORS 468.065 and 468.070, particularly the latter statute which provides "*** the Department may *** modify *** any permit ***". In view of the distinction made between the Department and the Commission in ORS 468.010 and 468.030, it is abundantly clear that jurisdiction to modify a permit for an existing facility is vested in the Department rather than in the Department and the Commission concurrently or the Commission independently. In turn, the Department is headed by its Director who under ORS 468.045(1)(c) is required to "administer and enforce the laws of the state concerning environmental quality ***".

I am not implying the Director has the authority to grant, deny, modify, suspend or revoke any permit in violation of the lawful regulations of the Environmental Quality Commission. I believe, however, the regulations of the Environmental Quality Commission confirm the authority of the Director to independently act on our request for modification of the Bethel air contaminant permit. OAR 340-14-020 specifically provides a permit holder may apply to the Department for the modification of an existing permit. OAR 340-14-040 specifically provides the Department may institute a modification proceeding. OAR 340-14-050 specifically provides the Department may waive the procedural requirements for a new, modified, or renewed permit not only where an emergency exists but where "unexpected *** activities, operation, emissions, and discharges" occur.

James W. Durham
Page Three
October 12, 1979

We are dealing here with a permit condition of questionable validity. In addition, conditions are materially different today than when these permits were first issued. At the time of the last Bethel Air Contaminant Permit renewal, the nation thought it was facing a shortage of natural gas. Oil was the contemplated fuel for this facility. The situation today is exactly the reverse. Natural gas is plentiful. It is substantially less expensive than oil. Oil is in short supply. It is expensive and available supplies may be required to heat the homes of Oregonians this winter. In view of this, it would not appear prudent to require the operation of facilities such as our Beaver Plant which are capable of operation on oil only when the region has available to it facilities such as Bethel capable of operation on natural gas. This would seem particularly true in view of the superior air quality achieved by operation on natural gas rather than oil. In view of this, I believe the Director under the "unexpected activities and operations" provision of OAR 340-14-050 has present authority to authorize the modification.


Warren Hastings

WH:sk



MID WILLAMETTE VALLEY

AIR POLLUTION AUTHORITY

MICHAEL D. ROACH
M.W.V.A.P.A.
AIR Per
Director

2585 STATE STREET / SALEM, OREGON 97301 / TELEPHONE AC 503 / 581-1715

July 28, 1975

RECEIVED

JUL 29 1975

Portland General Electric Company
621 S.W. Alder Street
Portland, Oregon

R. B. SNYDER

Gentlemen:

Enclosed is a copy of your proposed air contaminant discharge permit number 242318.

The rules of this Authority provide that when the Authority proposes to issue a permit, the proposed permit will be forwarded to the applicant for comment. All comments must be submitted in writing thirty (30) days after mailing of the proposed permit if such comments are to receive consideration prior to final action on the application.

Sincerely yours,

David St. Louis
Interim Director

DS/lS/968

Encl.

cc: Department of Environmental Quality

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY
2585 State St., Salem, Oregon 97301
Phone (503) 581-1715

Permit Number 242318
Expiration Date 8-1-76

Air Contaminant Discharge Permit

(Issued in accordance with provisions of MWVAPA Rules, Title 22)

Issued to: Portland General Electric Co. Application No. 34
621 S.W. Alder Street
Portland, Oregon Issuance Date August, 1973
Plant site: Bethel Substation, 5500 Blk. Last Renewal August, 1975
of State St., North Side of
Street, Salem, Oregon

Source(s) covered by this permit:

<u>Source</u>	<u>SIC No.</u>
<u>Electric Power Generation</u>	<u>4911</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

Approved:

M.D. Roach, Director

Air Contaminant Discharge Permit

Source(s): Electric Power Generation

SIC No. 4911

1. Permitted Activities

- 1.1 Until such time as this permit expires or is modified or revoked, Portland General Electric Company is herewith permitted to discharge emissions in a controlled manner from four Pratt & Whitney FT4C-1 combustion gas turbines driving two air-cooled electric generators, two 100,000 barrel fuel storage tanks with vapor controls, and associated fuel handling equipment located at the Bethel substation, 5765 State Street, Salem, Oregon. These air contaminant discharges, based upon a maximum power output of 127 megawatts peak load, are permitted in accordance with the requirements, limitations, and conditions of this permit.
- 1.2 Specific listing of requirements, limitations, and conditions contained herein does not relieve the permittee from compliance with all rules of the Mid-Willamette Valley Air Pollution Authority, nor waives the right of the Authority to require compliance therewith.

2. Performance Standards and Emission Limits

- 2.1 Notwithstanding the general and specific emission standard and regulations of the Authority, the highest and best practicable treatment and control of air contaminant emissions shall in every case be provided by the permittee so as to maintain overall air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling and other deleterious factors at the lowest possible levels. In the case of new sources of air contaminants, particularly those located in areas with existing high air quality, the degree of treatment and control provided shall be such that degradation of existing air quality is minimized to the greatest extent possible (OAR 20-001). Specifically, total emissions from the four combustion turbines shall not exceed the following limits at any time:
 - 2.1.1 Particulate matter restrictions:
 - 2.1.1.1 Fifteen (15) pounds per hour of particulate for any single turbine when distillate fuel is burned.

Air Contaminant Discharge Permit

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2.1.1.2 Seven (7) pounds per hour of particulate for any single turbine when natural gas is burned.

2.1.2 Nitrogen oxides restrictions:

2.1.2.1 320 pounds per hour of nitrogen oxides (NOx) for any single turbine when distillate fuel is burned.

2.1.2.2 110 pounds per hour of nitrogen oxides (NOx) for any single turbine when natural gas is burned.

2.1.3 Carbon monoxide restrictions:

2.1.3.1 17.5 pounds per hour of carbon monoxide (CO) for any single turbine burning distillate fuel.

2.1.3.2 210 pounds per hour of carbon monoxide (CO) for any single turbine burning natural gas.

2.1.3.3 45 pounds per hour of carbon monoxide (CO) for any single turbine at half load burning distillate fuel.

2.1.3.4 180 pounds per hour of carbon monoxide (CO) for any single turbine at half load burning natural gas.

The above limitations shall be applicable to base load operation except where otherwise specified.

2.1.4 In addition, visible smoke emissions from each stack shall be minimized such that a Ven Brand Reflectance Number of 95 or better is achieved at all times and shall not exceed 10 percent opacity except for the presence of uncombined water.

2.2 The permittee shall store the petroleum distillate having a vapor pressure of 1.5 psia or greater under actual storage conditions in pressure tanks or reservoirs or shall store in containers equipped with a floating roof or vapor recovery system or other vapor emission control

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device. Further, the tank loading facilities shall be equipped with submersible filling devices or other vapor emission control systems (MWR 33-165). Specifically, volatile hydrocarbon emissions from the 200,000 barrel fuel storage tanks shall not exceed 75 pounds per day under normal storage conditions.

- 2.3 The permittee shall not allow unnecessary amounts of particulate matter to become airborne from buildings, roads, driveways, open areas, or materials handling processes (MWR 32-040). Reasonable precautions to prevent particulate matter from becoming airborne are specified in Section 5 of this permit.
- 2.4 The permittee is prohibited from causing or allowing discharges of air contaminants from sources not covered by this permit so as to cause the plant site to exceed the standards fixed by this permit or rules of the Authority.

3. Compliance Schedule

Not applicable.

4. Monitoring and Reporting

- 4.1 The permittee shall regularly monitor and inspect the operation of the plant to insure that it operates in continual compliance with the conditions of this permit and the Rules and Regulations of the Authority. In the event that any monitoring equipment becomes inoperative for any reason, the permittee shall immediately notify the Authority of said occurrence. Specifically the permittee shall:
- 4.1.1 Calibrate, maintain and operate in a manner approved by the Authority, an emission monitoring instrument for continually monitoring and recording emissions of oxides of nitrogen.
- 4.1.2 Calibrate, maintain and operate in a manner approved by the Authority an emission monitoring instrument for continually monitoring and recording emissions of carbon monoxide.

Air Contaminant Discharge Permit

Source(s): Electric Power Generation SIC No. 4911

- 4.1.3 Obtain and record representative sulfur analysis and ash analysis by methods approved by the Authority of fuel oils as burned for every delivery lot or whenever the source of supply is changed. In addition, the permittee shall maintain facilities for obtaining representative samples from the fuel handling system at the plant site as approved by the Authority and provide the Authority analysis of periodic samples upon request.
- 4.1.4 Maintain and submit to the Authority a log of operation incorporating, but not limited to, the following parameters:
- 4.1.4.1 Time of operation.
 - 4.1.4.2 Quantities and types of fuel used relative to time of operation.
 - 4.1.4.3 Electrical output relative to time of operation.
 - 4.1.4.4 Stack emissions relative to time of operation.
 - (a) oxides of nitrogen (NO_x) in ppm and pounds per hour
 - (b) carbon monoxide (CO) in ppm and pounds per hour
 - (c) percent oxygen (O₂)
 - 4.1.4.5 Ambient conditions relative to time of operation.
 - (a) oxides of nitrogen (NO_x) in ppm and micrograms per cubic meter
 - (b) sulfur dioxide (SO₂) in ppm and micrograms per cubic meter
 - (c) particulate concentration in ppm and micrograms per cubic meter
 - 4.1.4.6 Wind direction and velocity relative to time of operation.
 - 4.1.4.7 Ambient temperature, pressure and humidity.

Air Contaminant Discharge Permit

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- 4.1.5 This log is to be submitted on or before the 25th of the month following the month logged and will indicate the instantaneous, hour by hour conditions existent at the plant site and ambient monitoring station. Any malfunctions occurring and the duration shall be noted in the log. Stack and ambient data will be submitted whether or not the turbines are operating.
- 4.2 Portland General Electric Company shall conduct a particulate, sulfur dioxide and oxides of nitrogen monitoring program in the vicinity of the Bethel site to determine ground level concentrations. The monitoring program shall be conducted in a manner approved by the Authority. Appropriate meteorological parameters shall be determined. This data is to be incorporated in the log specified in subsection 4.1.4.
- 4.3 In the event that the permittee is temporarily unable to comply with any of the provisions of this permit, the permittee shall notify the Authority by telephone as soon as is reasonably possible, but not more than one hour, of the upset and of the steps taken to correct the problem. Operation shall not continue without approval nor shall upset operation continue during Air Pollution Alerts, Warnings, or Emergencies or at any time when the emissions present imminent and substantial danger to health (MWR 21-045).

5. Conditions of Operation

- 5.1 The permittee shall not operate the Bethel plant for more than 500 facility hours. From startup to shutdown no matter how many engines are operated nor what the load factor, the plant is not to operate more than 500 hours. The 500 hour limit may be modified by the Board of Directors of the Authority at a special or regular meeting, providing a demonstrated need is substantiated by the permittee that extended curtailment would adversely affect the public health and welfare of the five-county area of jurisdiction and that previous 500 hour use occurred only when power was not available as determined by the Northwest Power Pool.
- 5.2 In accordance with the policy established by the Board of Directors of the Authority the permittee shall not operate

Air Contaminant Discharge Permit

Source(s): Electric Power Generation

SIC No. 4911

the Bethel facility after the Trojan plant first produces power for commercial consumption.

- 5.2 The permittee shall at all times maintain and operate the air contaminant generating processes and all contaminant control equipment at full efficiency and effectiveness, such that the emission of air contaminants is kept at the lowest practicable level.
- 5.4 Turbines shall always be started on natural gas.
- 5.5 The permittee shall burn the lowest sulfur and ash content distillate oil available, but in no case shall a lower grade than ASTM No. 2 distillate be burned.
- 5.6 The sulfur content of the fuel burned shall not exceed 0.3 percent by weight at any time.
- 5.7 The vehicular traffic areas of the plant site, or access road, are to be oiled, or paved as often as required to prevent dust emissions.
- 5.8 Fuel delivery by truck shall be kept to a minimum and only between the hours of 9 a.m. and 2 p.m. and 5 p.m. and 9 p.m., providing for specific instances with good cause shown, the Authority may authorize other hours.
- 5.9 Operation of any combustion turbine at other than power output of 15 to 30 megawatts (30 degrees F ambient basis) shall not exceed more than five percent of the operating time.

6. Emergency Emission Reduction Plan

- 6.1 The permittee will implement an emission reduction plan during air pollution episodes when so notified by this Authority.
- 6.2 As a minimum, the permittee will implement the following emission reduction plan during air pollution episodes when so notified by the Authority:
 - 6.2.1 ALERT: Prepare to shut down all turbines.
 - 6.2.2 WARNING: Shut down all combustion turbines.
 - 6.2.3 EMERGENCY: Continue WARNING measures.

Air Contaminant Discharge Permit

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- 6.3 In addition, the permittee shall cease operation of the combustion turbines upon notification from the Authority that air quality at any downwind continuous monitoring site in Marion County has reached the following:
- 6.3.1 95 percent of the adopted particulate standard taken as 142 micrograms per cubic meter of air, 24 hour average. Operation shall remain curtailed until particulate air quality is below 135 micrograms per cubic meter of air, 24 hour average.
 - 6.3.2 95 percent of the adopted sulfur dioxide standard taken as 247 micrograms per cubic meter of air, 24 hour average and 1236 micrograms per cubic meter of air, 3 hour average. Operation shall remain curtailed until sulfur dioxide air quality is below 234 micrograms per cubic meter of air, 24 hour average, and 1170 micrograms per cubic meter of air, 3 hour average.
 - 6.3.3 95 percent of the adopted photochemical oxidant standard taken as 152 micrograms per cubic meter of air, 1 hour average. Operation shall remain curtailed until photochemical oxidant air quality is expected to be less than 120 micrograms per cubic meter of air, 1 hour average, during the next 24 hours.

7. General Requirements for All Sources

- 7.1 The permittee is prohibited from conducting any open burning at the plantsite (MWR 33-005).
- 7.2 Disposal of waste residue in a landfill or other solid waste disposal area shall be done in a manner and at locations approved by the Department of Environmental Quality.
- 7.3 The permittee shall obtain approval in writing from the Authority for any change in the plant facility, production capabilities, or for any new emission sources prior to installation or modification of the equipment classified as an emission source or emission control equipment (MWR 21-010).
- 7.4 This permit is subject to suspension or revocation prior to its expiration date for any of the reasons listed

Air Contaminant Discharge Permit

Source(s): Electric Power Generation

SIC No. 4911

below (MWR 22-005):

- 7.4.1 Within sixty days after the sale or exchange of the permitted air contaminant source(s).
- 7.4.2 Upon change in the nature of activities, operations, air contaminant discharges from those of record on the last permit application.
- 7.4.3 Upon issuance of a new or modified permit to the same air contaminant source.
- 7.4.4 Upon written request of the permittee.
- 7.4.5 Misrepresentation of any material, fact, or lack of full disclosure in the application or other additional information requested therewith.
- 7.4.6 Violation of any of the requirements, limitations, or conditions contained herein.
- 7.5 Non-compliance with the terms of this permit may subject the permittee to imposition of a civil penalty or misdemeanor.
- 7.6 If the Authority finds that there is a serious danger to the public health or safety, or irreparable damage to a resource will occur, it may suspend or revoke a permit effective immediately (MWR 22-025).
- 7.7 The permittee shall allow Authority representatives access to the plantsite and record storage areas at all reasonable times for the purpose of making inspection, surveys, collecting samples, obtaining data, and otherwise conducting all necessary functions related to this permit.
- 7.8 Prior to modification or renewal of this permit, a public hearing shall be held by the Board of Directors to assess the operation of the plant.



Portland
Bureau of
Planning

10/19/79

424 SW Main St.
Portland, Oregon
97204

Please enter as
written testimony
for the hearing regarding
agenda item J - (this will not
be read orally)

"Proposed Adoption of Noise
Control Regulations for
Airports" -

from the City of Portland
Bureau of Planning

* Please distribute to the
Commissioners & Mr. Young -
Thank you - Laurel Wentworth

LAUREL WENTWORTH

Transportation

248-4254

J
Rec'd 10/19/79
OB

THE CITY OF
PORTLAND



OREGON

19 October 1979

Environmental Quality Commission
Dept. of Environmental Quality
522 SW 5th Avenue
Portland, Oregon 97204

Connie McCready
MAYOR

BUREAU OF
PLANNING
424 S.W. MAIN STREET
PORTLAND, OR 97204

DOUGLAS WRIGHT
DIRECTOR
248-4253

CODE
ADMINISTRATION
248-4250

LONG RANGE
PLANNING
248-4260

SPECIAL
PROJECTS
248-4509

TRANSPORTATION
PLANNING
248-4254

Dear Commissioners:

Over the past year, the Bureau of Planning staff has had the opportunity to review the Department of Environmental Quality's proposed Noise Control Regulations for Airports throughout the State.

The City Council supported and adopted the PIA, Airport Development and Airport Access Plans in the belief that the Port of Portland has worked toward maximizing the utility of the existing airport while maintaining land use compatibility in the areas adjacent to the airport.

We understand that the purpose of the proposed noise control regulations for airports is to provide an abatement program to prevent the creation of new noise impacts or the expansion of existing noise impacts within the area surrounding the airport. We concur that reducing aircraft noise is a responsible goal however, there continue to be some issues of concern to the City which should be addressed by the DEQ prior to adoption of the noise control regulations for airports. They are as follows:

- 1) The economic impact of land use actions which may be required to achieve compliance with the noise control rules on either a public or private level, such as zone-out of noise sensitive uses or fitting/retrofitting of new or existing residences with insulation, has not been assessed.
- 2) No federal, state or local funding mechanism has been established to implement any land use action which may be required as part of the noise abatement plan. To adequately share the economic burden of implementation of such a plan with private property owners, financial aid programs should be established prior to rule adoption.

19 October 1979
Page 2

We suggest, based on the above considerations, that the Environmental Quality Commission withhold adoption of the Noise Control Rules for Airports until these issues are resolved. Thank you for your consideration.

Sincerely,


Frank Frost
Acting Planning Director

FF:db

LOG HANDLING IN OREGON'S PUBLIC WATERS

An Implementation Program & Policy

Adopted by

THE OREGON ENVIRONMENTAL QUALITY COMMISSION

October 24, 1975

GENERAL SUMMARY OF PROBLEMS

Based on the Department's field evaluations, experience and review of pertinent literature, the following general conclusions about the effects of logs in public waters are drawn:

1. There is ample and conclusive evidence that the bark, debris and leachate releases resulting from dumping, storage and millside handling of logs in public waters can have an adverse effect on water quality. The magnitude of the effect varies with the size and characteristic of the waterway and the nature and magnitude of the log handling operation.
2. Free fall log dumping causes the major release of bark and other log debris.
3. Bark and log debris are the major waste products resulting from logs in water. These materials range in size from microscopic particles to whole logs. Some float but most will sink in a short time. Numerous particles may travel submerged a considerable distance before dropping to the bottom. Bottom deposits of these substances may blanket the benthic aquatic life and fish spawning areas. During submerged decomposition stages the wood products rob overlying waters of dissolved oxygen and often give off toxic decay products.
4. Leachates from logs in water can be a significant source of biochemical oxygen demand and dark color. These generally have minimal impact in larger flowing streams but their effect may be compounded in quiet waters.
5. Where logs go aground during tidal changes or flow fluctu-

ations, they can be a detriment to bottom dwelling aquatic life and can be the cause of increased turbidity.

6. Even though significant improvements have been made at certain log handling areas, further improvements are needed and can be accomplished on a short-term basis by improved log dumping, handling and storage practices at operations that still adversely impact aquatic life and water quality.
7. Because alternatives to the storage and handling of logs in public waters can result in undesirable as well as desirable environmental trade-offs, it is imperative that each operation be carefully evaluated on its own merits.

IMPLEMENTATION PROGRAM

Based on the statement of general policy which follows and case by case water quality assessments, a proposed state permit will be developed for each log handling operation in public waters where problems exist or are likely to occur that will:

1. State specific objectives designed to bring that operation into acceptable compliance with water quality standards.
2. Require the permittee to evaluate alternatives and submit a program and time schedule for meeting specific objectives.
3. Require implementation of a control program as approved by the Department, giving consideration to the impact of alternative methods on the environment.

In accordance with existing permit issuance regulations, each proposed permit would then be subject to review and comment by both the permittee and the public prior to issuance.

STATEMENT OF GENERAL POLICY

The following statement of general policy is set forth to guide both the staff of the DEQ and timber industry representatives in matters pertaining to log handling in public waters:

1. The Environmental Quality Commission and the Department of Environmental Quality acknowledge that transportation and

storage of logs is one of the appropriate uses of public waters of the state so long as such operations are controlled to adequately protect environmental quality, natural resources, public health and safety and the economy of the state.

2. The construction of new wood processing plants which must receive logs directly from public waters will not be approved by the Department without specific authorization of the Environmental Quality Commission. In general, new operations will not be permitted where water quality standards or other beneficial uses would be jeopardized.
3. Existing log dumping, storage and handling shall be adequately controlled, or if necessary phased out, to insure that violations of water quality standards are not caused by such activities. Any control program requiring more than five years to implement shall be subject to approval by the Environmental Quality Commission.
4. Establishment of new log storage areas where logs go aground on tidal changes or low flow cycles will not be approved by the Department without specific authorization of the Environmental Quality Commission. Where there is evidence that such areas result in more than nominal damages to aquatic life and/or water quality, the existing log storage areas where logs go aground shall be phased out in accordance with an approved schedule unless specific authorization for continuance is granted by the Commission in consideration of environmental trade-offs. Any phase-out program taking more than five years shall be subject to approval by the EQC.
5. New free-fall log dumps shall not be permitted. Existing free-fall dumps shall either be phased out as soon as practicable by the installation of DEQ approved easy-let-down devices or controlled in a manner equivalent to the installation of easy-let-down facilities. Any requests for special consideration shall be subject to approval by the EQC.
6. Best practicable bark and wood debris controls, collection and disposal methods, as approved by the Department, shall

be employed at all log dumps, raft building areas and millside handling sites in accordance with specifically approved programs.

7. The inventory of logs in public waters for any purpose shall be kept to the lowest practicable number for the shortest practicable time considering market conditions and the quality of the water at the storage site.
8. Upon specific request, the industry shall provide information to the Department relative to log volumes and usage site locations in public waters.
9. All dry land log storage, wood chip, and hog fuel handling and storage facilities located adjacent to waterways shall be designed, constructed and operated to control leachates and prevent the loss of bark, chips, sawdust and other wood debris into the public waters. Plans and specifications must be approved by the Department prior to construction of new or modified facilities. (Additional approvals may be required relative to air quality and noise impacts).
10. Subsequent to adoption of this policy each industry shall be responsible for cleanup and removal of sunken logs, piling, docks, floats and other structures from its log dumping, handling, and storage sites in public waters when use thereof is to be permanently terminated. Discontinuance for a period of five years is prima facie evidence of the permanence of the termination.

FIGURE 5a Average No. of annelids per core at Cooston Channel plotted against time

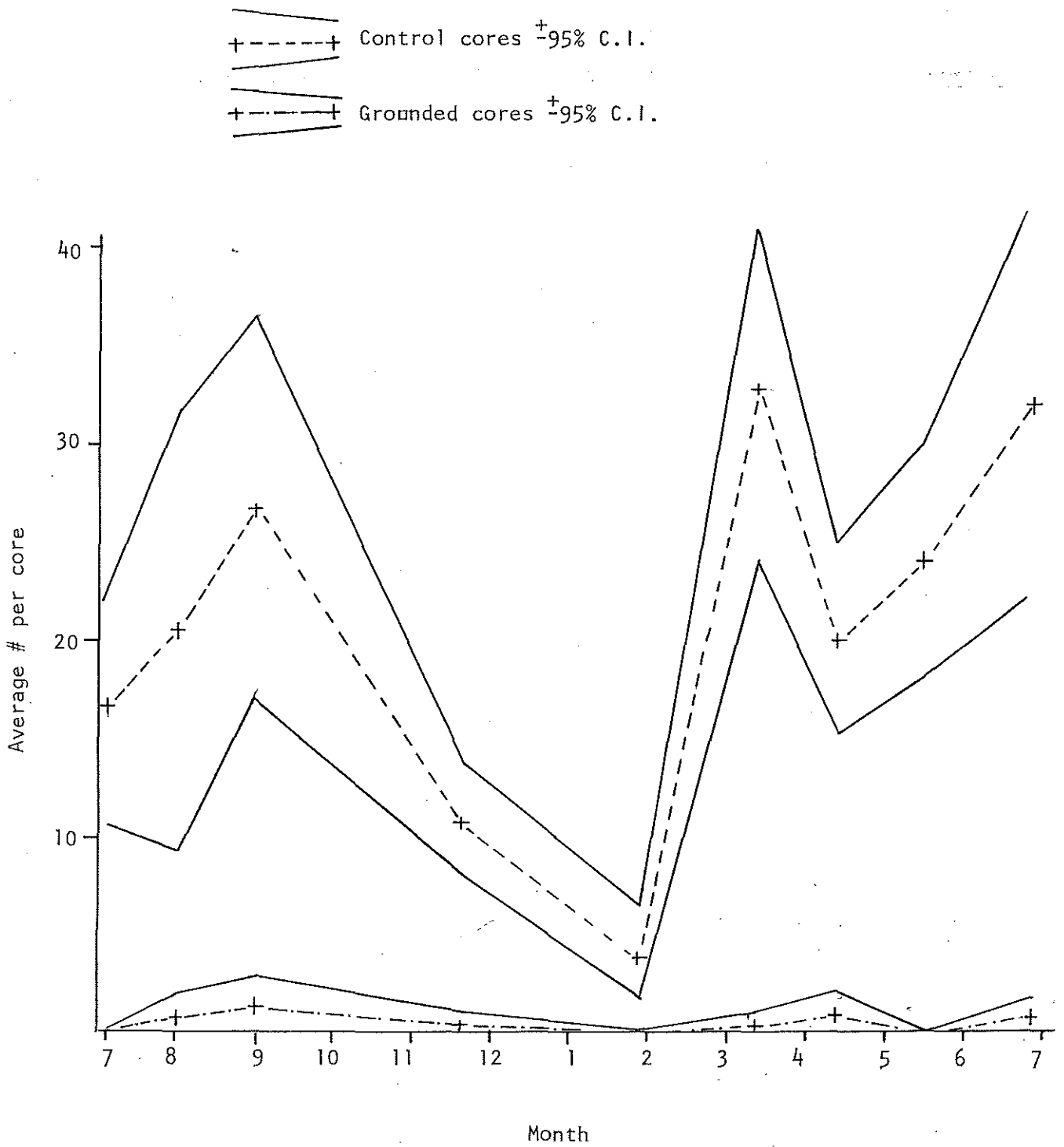


FIGURE 5b The average No. of arthropods per core at Cooston Channel plotted against time.

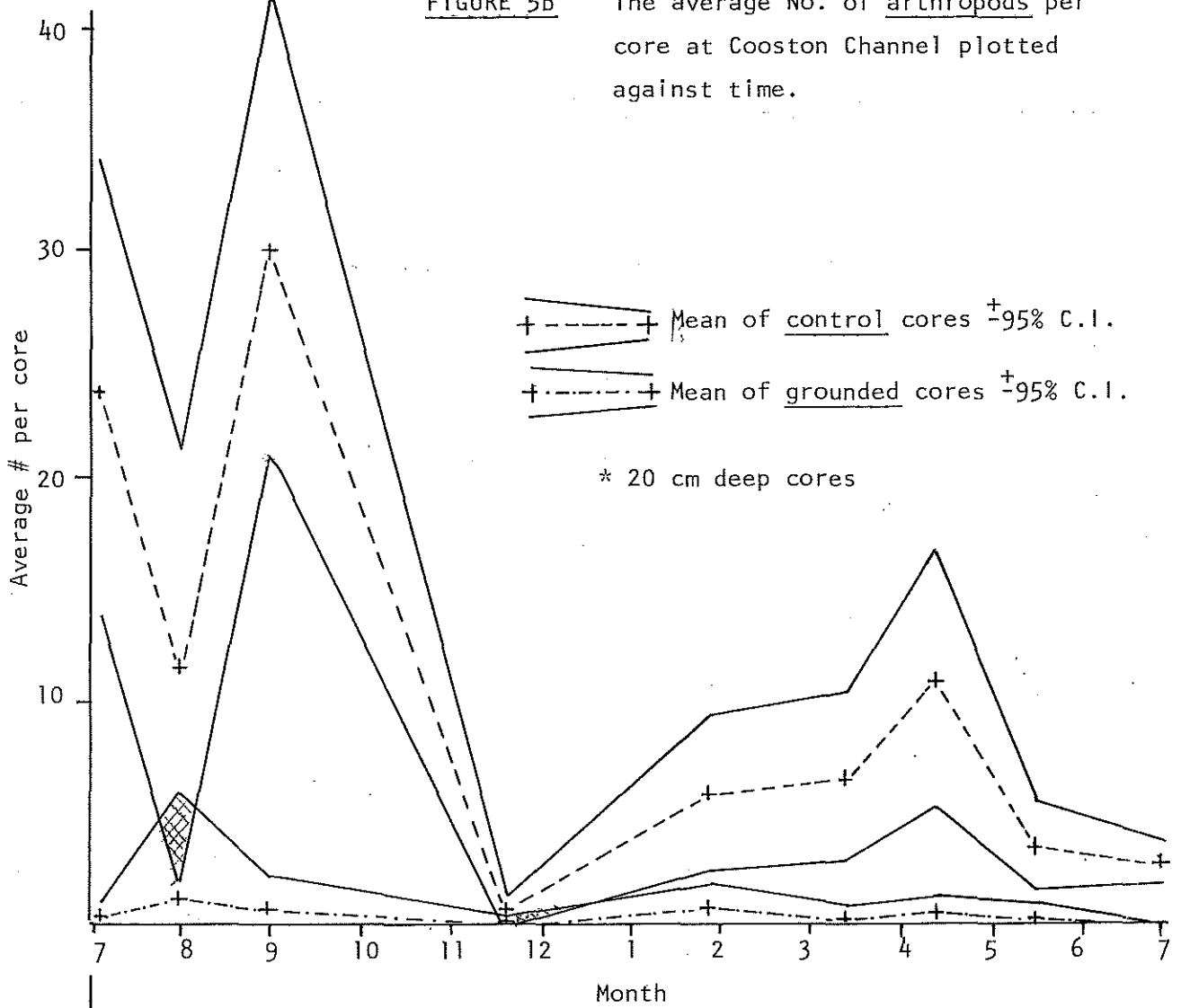
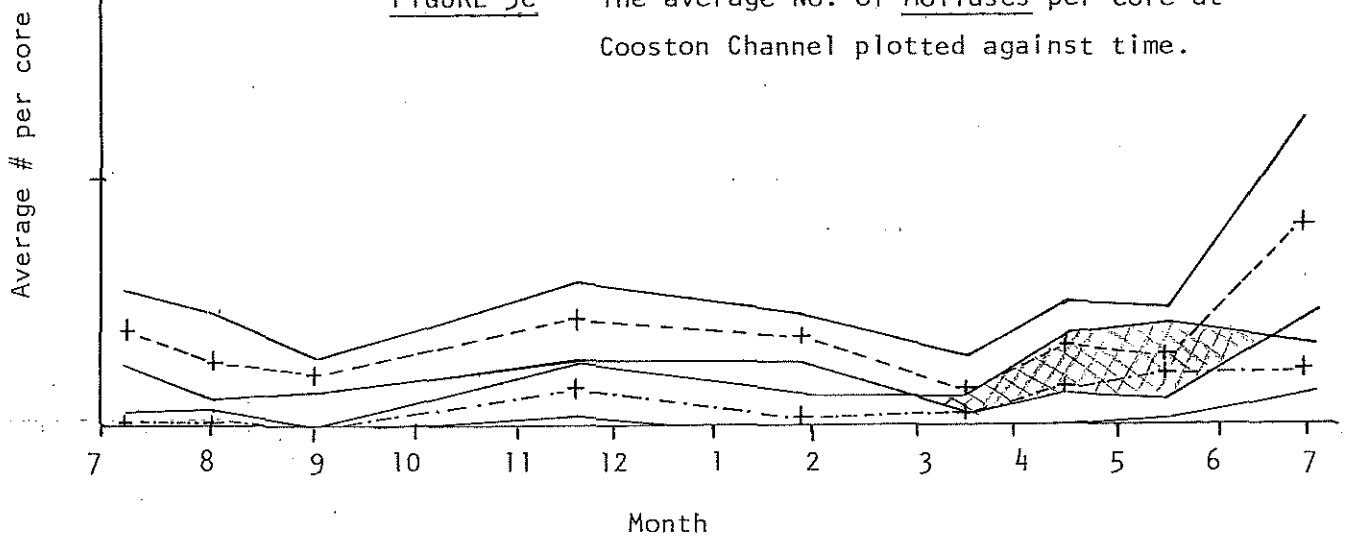


FIGURE 5c The average No. of Molluscs per core at Cooston Channel plotted against time.



5d.

FIGURE 5d

The average number of all organisms per core v.s. month for Cooston Channel site.

* 20. cm deep cores

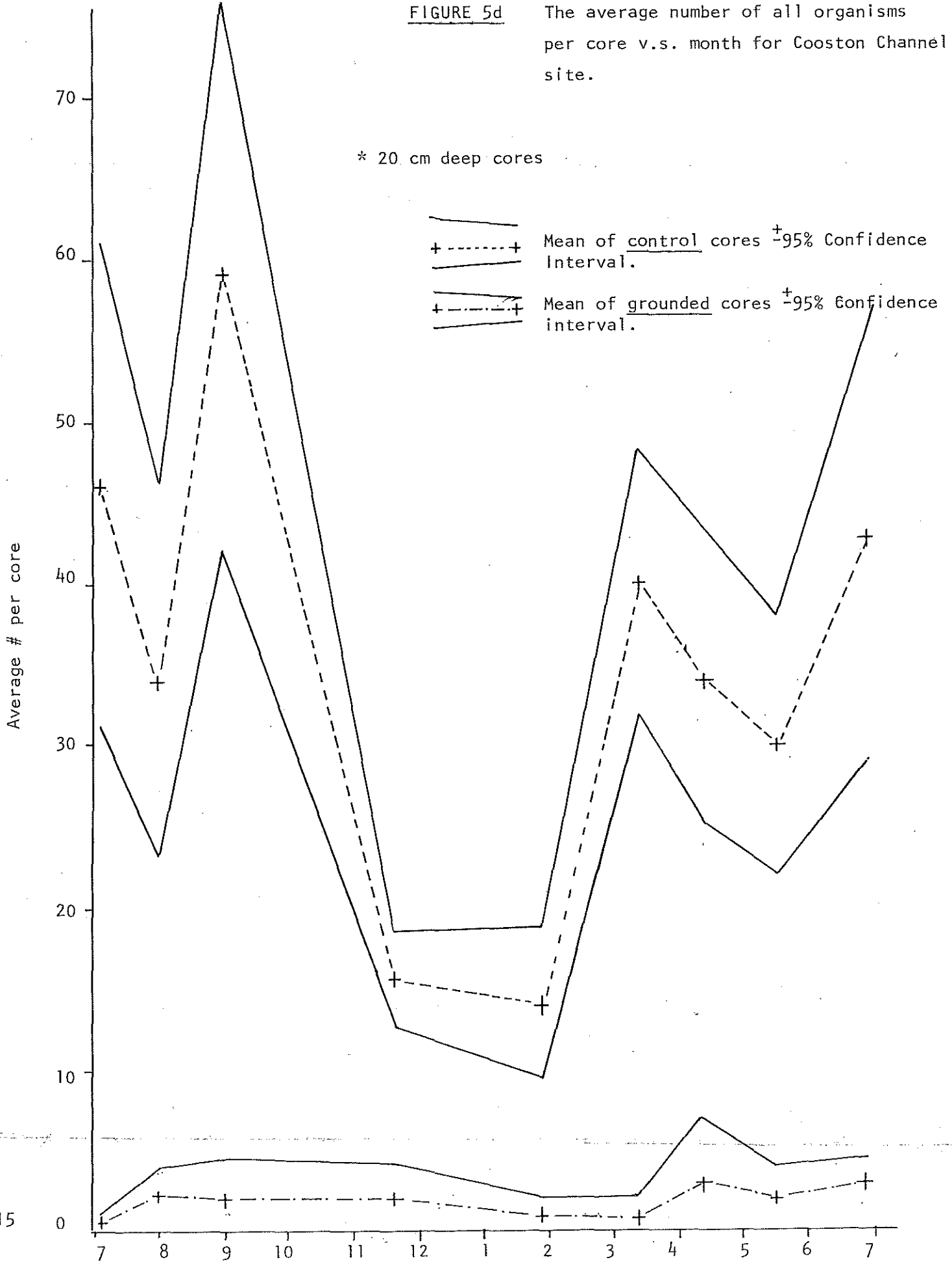


FIGURE 6a Average No. of Annelids per core at Lillian Creek plotted against time.

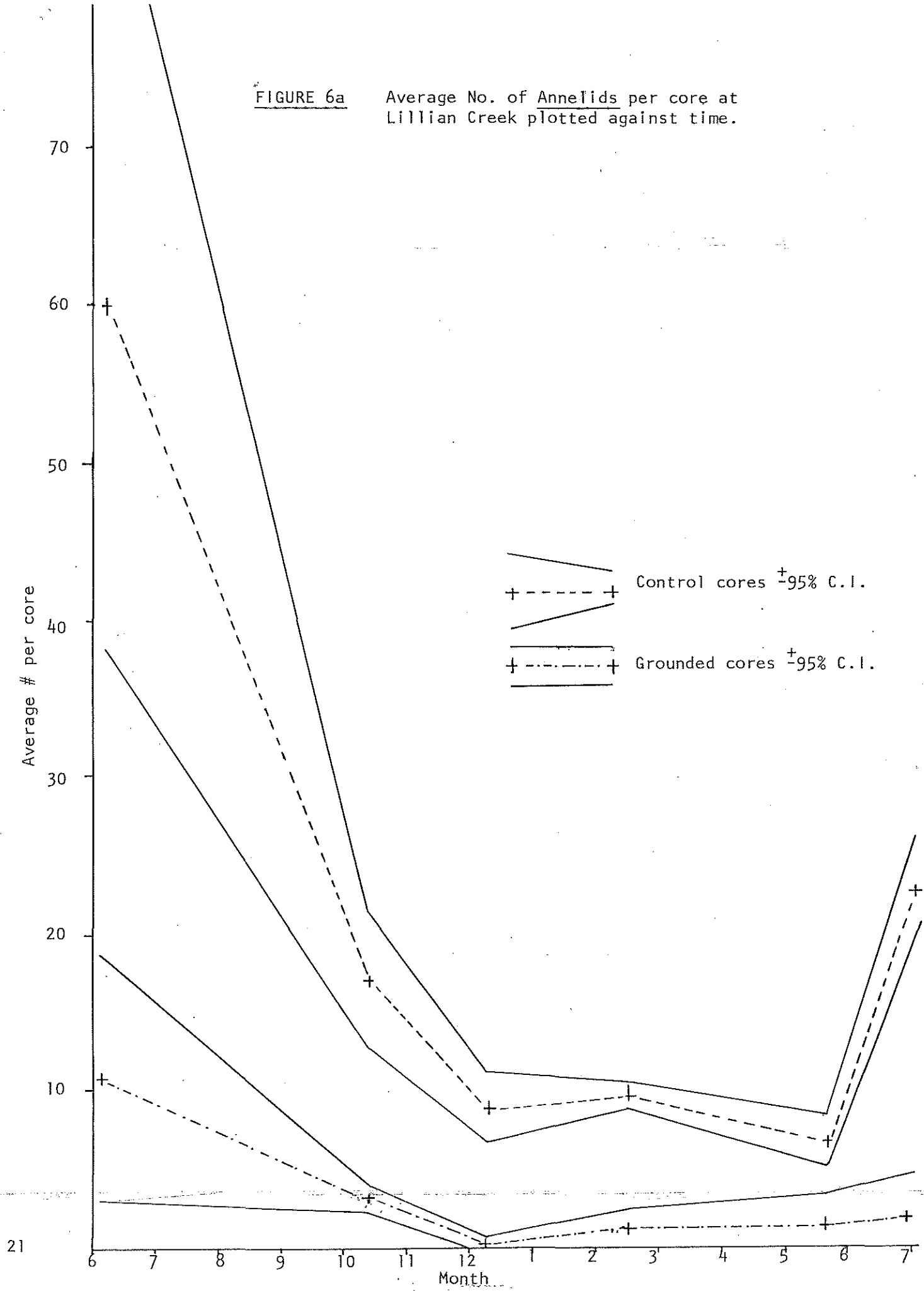


FIGURE 6b Average No. of Arthropods per core at Lillian Creek plotted against time

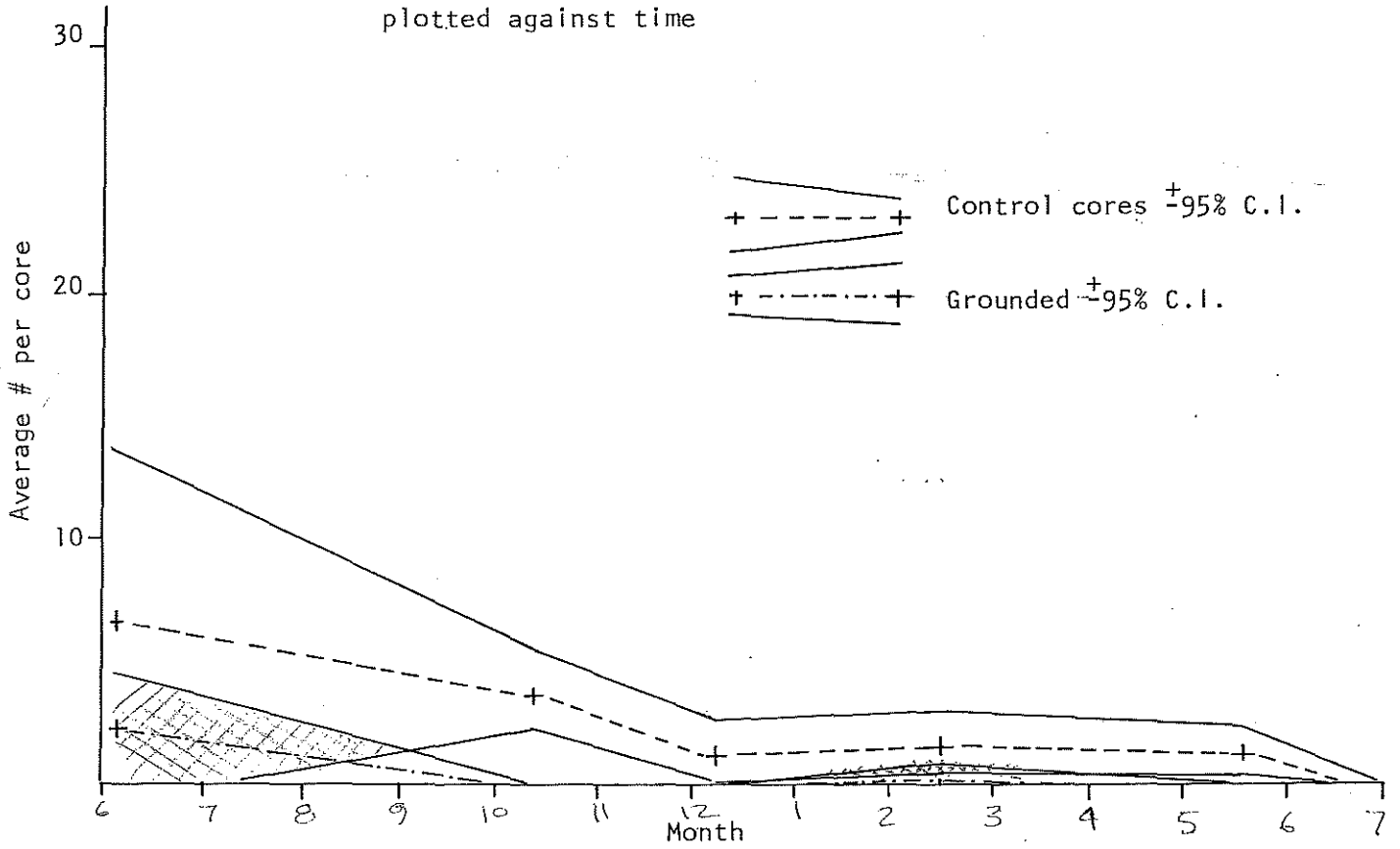


FIGURE 6c Average No. of Molluscs per core plotted against time

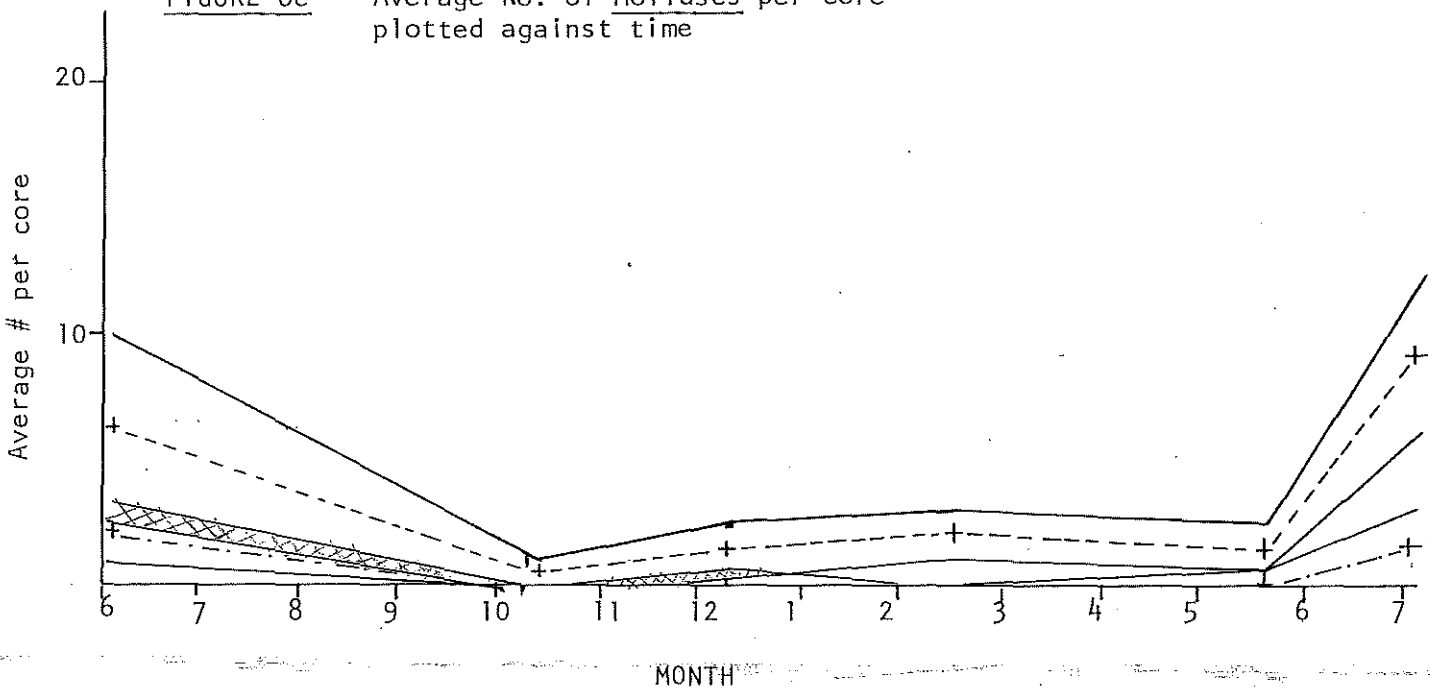
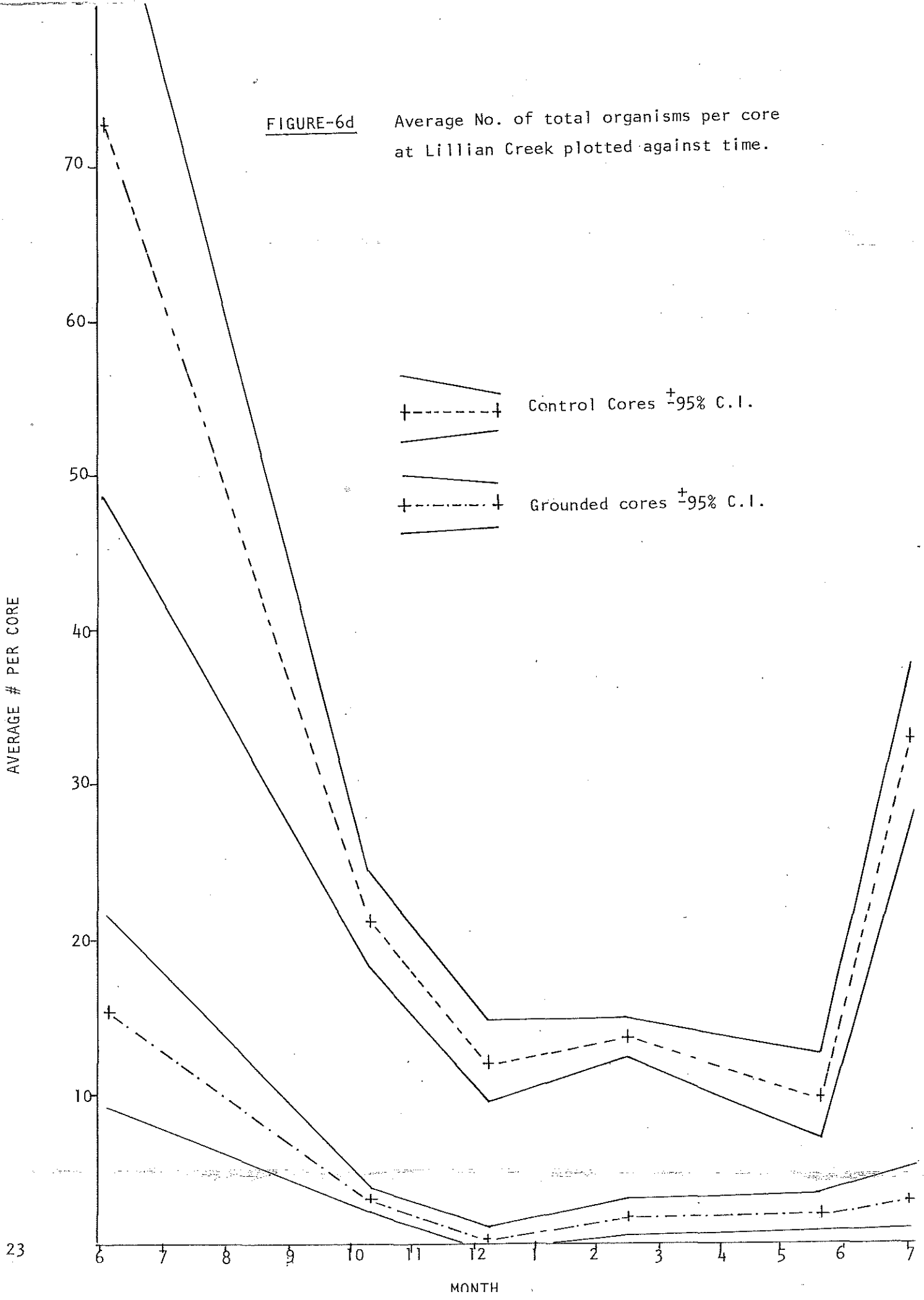


FIGURE-6d

Average No. of total organisms per core at Lillian Creek plotted against time.



10-77 and 5-78. Likewise, differences were detected during 2-78 and 7-78 in Mollusc populations. Salinity and temperature are reported in the Appendix.

Isthmus Slough

Sometime between September and December, 1977 logs were removed from the grounded sampling area in Isthmus Slough. The area remained free of logs throughout the remainder of the study.

Figure 7 summarizes data collected. The core depth of sampling for 7-18-77 was 10 cm. and the core depth for all other sampling dates was 15 cm. Samples collected at Isthmus Slough followed similar trends as those from the three other sites; showing depressed population levels for control populations during winter months for Annelides and total organisms collected. There was always a significantly greater number of organisms in control cores than in grounded cores throughout the study.

The mean number of arthropodes found per core was always greater in control cores than in grounded cores. However, variability in data causing wide confidence intervals resulted only in the detection of significant differences on 9-14-77 and 9-27-77.

Molluscs were not found within this tidal interval of Isthmus Slough throughout the study.

Also of interest is that during the Fall of 1978 following the removal of logs, the average number of organisms in the previously grounded area increased to levels almost 10 times what they were the previous fall. However, this increased level was still significantly lower than average numbers from control cores, and apparently the recovery was incomplete. Temperature and salinity data are reported in the Appendix.

Data for individual species from the various sites are summarized in Tables 1-4. Further explanation of this data will not be covered here, but will be described for the more important members in the Discussion.

FIGURE 7a Average No. of Annelids per core at Isthmus Slough plotted against time.

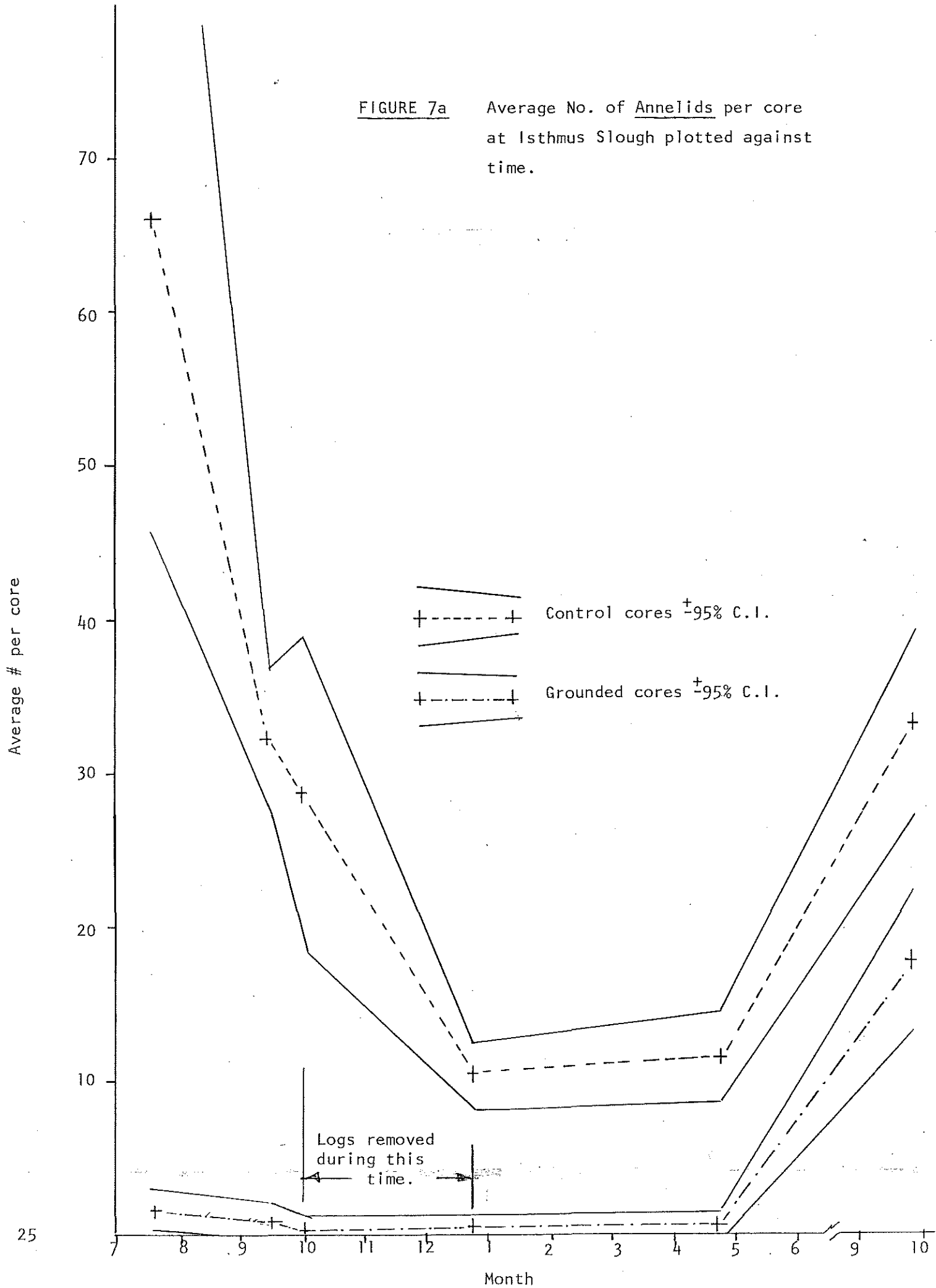


FIGURE 7b Average No. of Arthropods per core at Isthmus Slough plotted against time.

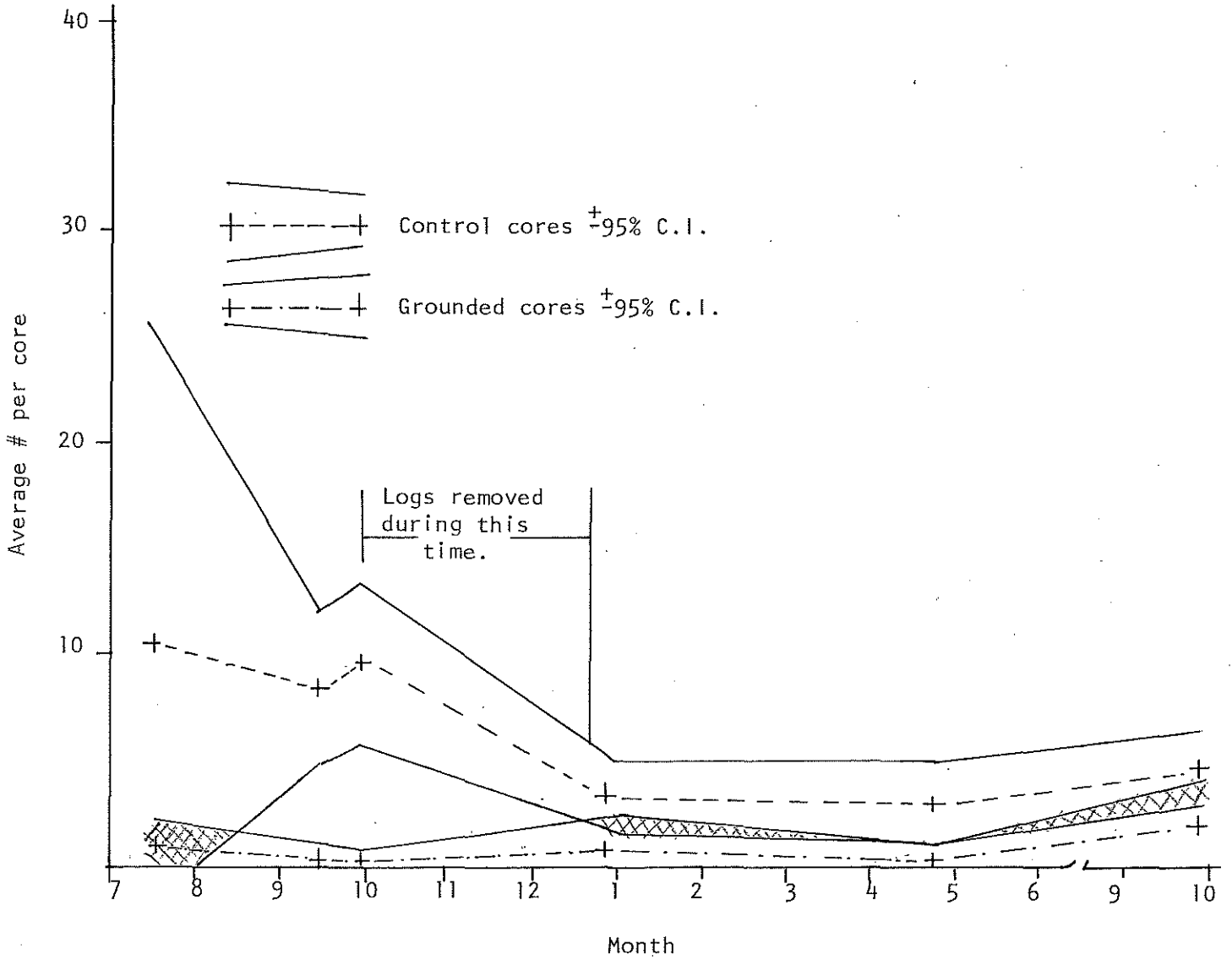


FIGURE 7c

Average No. of total organisms
per core at Isthmus Slough plotted
against time.

Average # per core

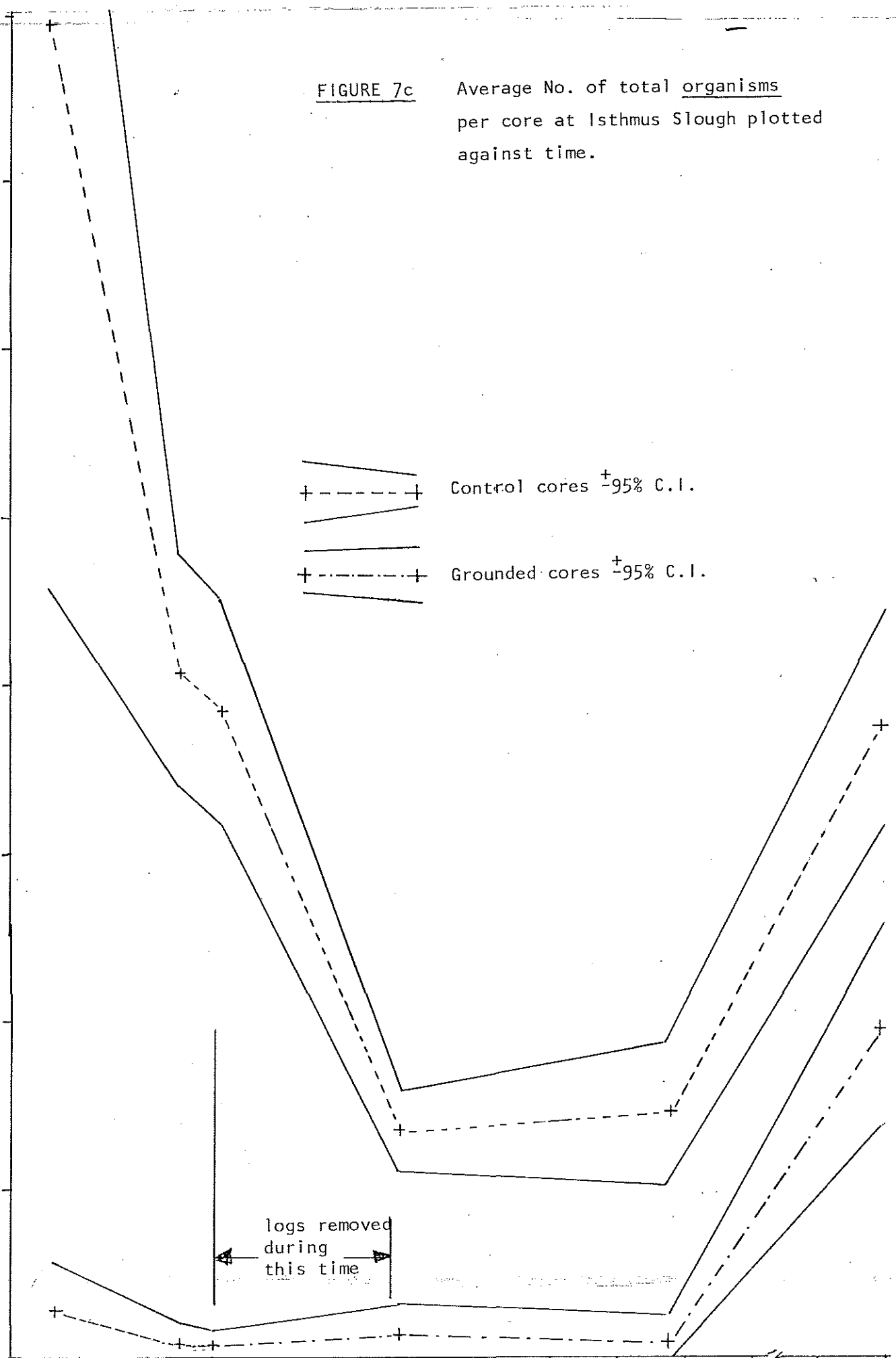
Control cores $\pm 95\%$ C.I.
Grounded cores $\pm 95\%$ C.I.

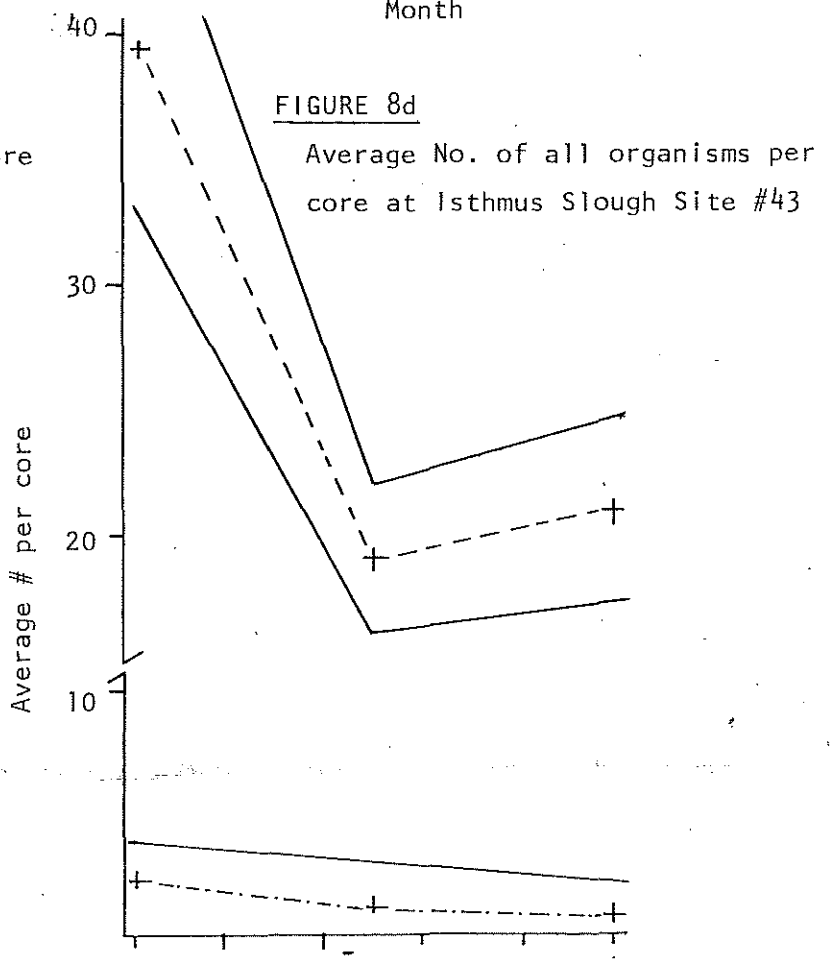
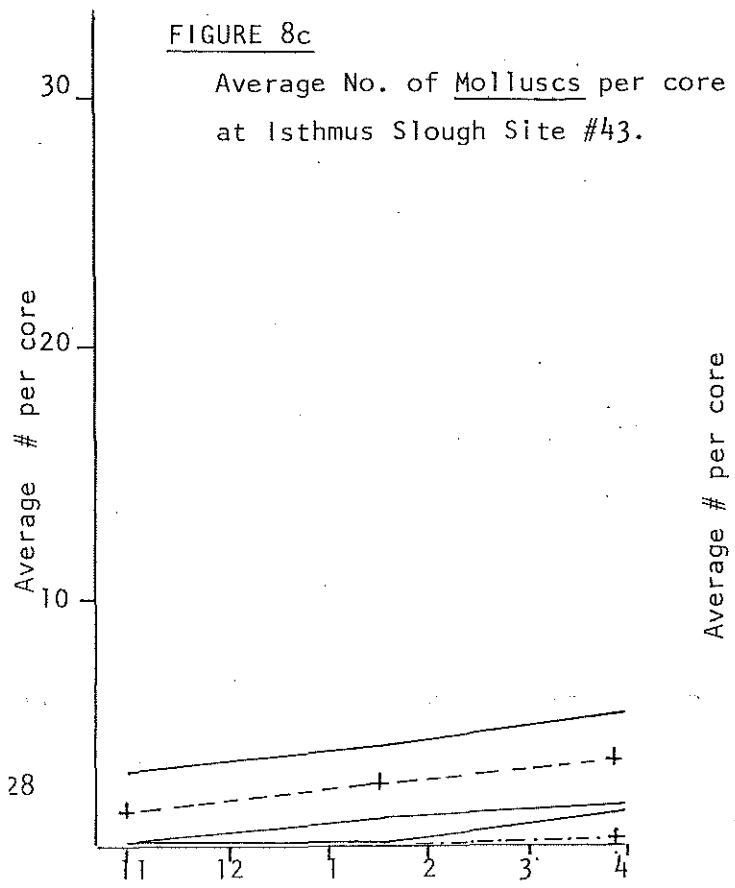
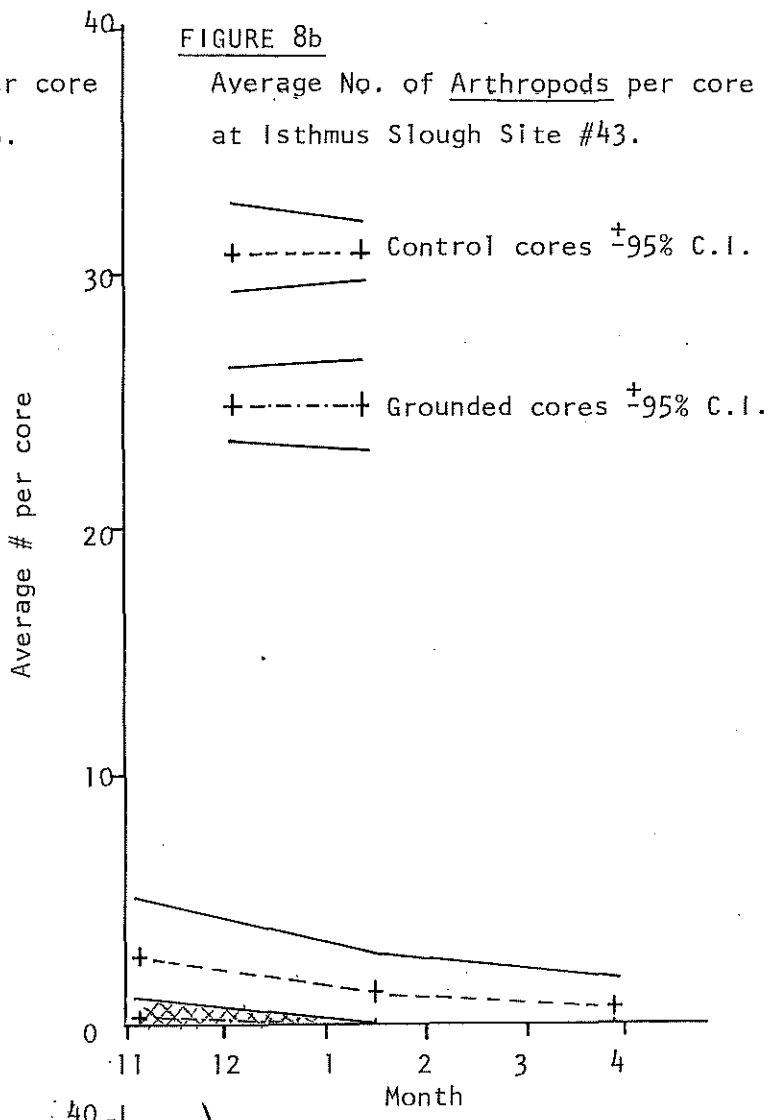
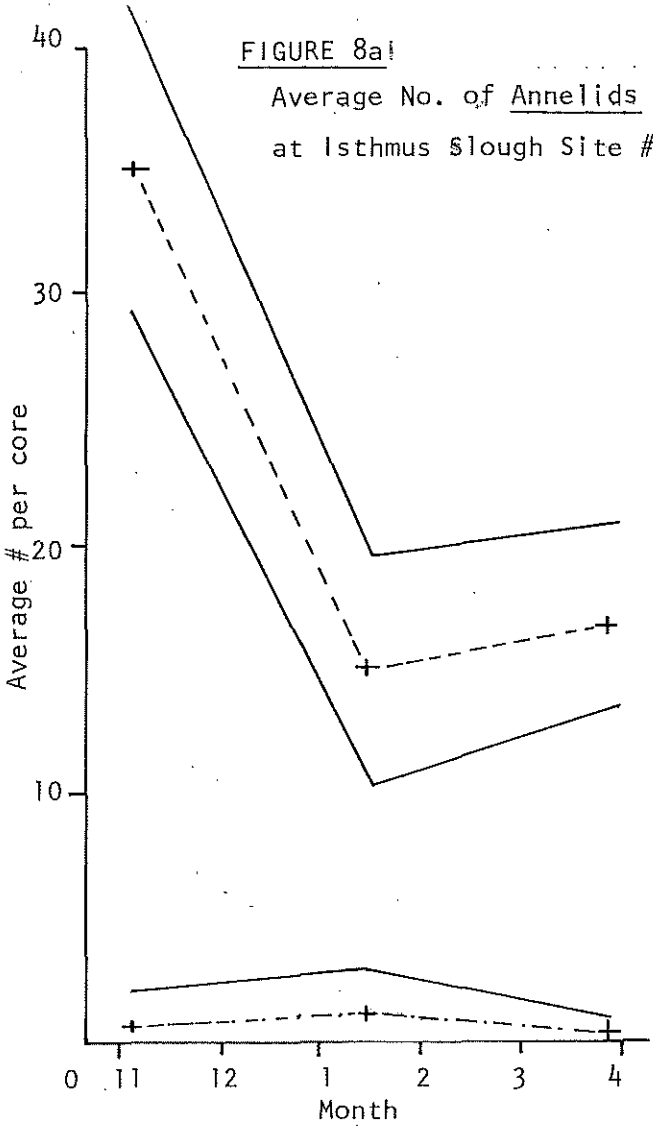
logs removed
during
this time

27

70
60
50
40
30
20
10

7 8 9 10 11 12 1 2 3 4 5 6 9 10
Month





ABSTRACT

A study was conducted from June, 1977 to September 1978 to determine if the practice of storing log rafts over tidelands in areas where they go aground during periods of low tides has adverse affects on the benthic invertebrates of the mudflats. Samples were taken from each of 4 sites within the Coos Estuary system on a somewhat alternating basis.

At each site, samples were compared from control areas (no logs stored) and from adjacent storage areas. These comparisons revealed significantly reduced numbers of benthic invertebrates in the mudflats under log rafts. The annelides were particularly affected by the storage practices. Certain of the species affected are important members of the estuarine food web.

*Department of Fish and Wildlife*

OFFICE OF THE DIRECTOR

506 S.W. MILL STREET, P.O. BOX 3503, PORTLAND, OREGON 97208

Victor Atiyeh
Governor

May 1, 1979

Ms. Barbara Burton
Department of Environmental Quality
Southwest Region
1937 W. Harvard Boulevard
Roseburg, Oregon 97470

Dear Ms. Burton:

This letter is based on a number of studies, technical reports, inter-agency discussions and in-house memoranda regarding impact of intertidal log storage in Coos Bay.

The Department of Fish and Wildlife has long held that grounding of logs at rafting sites in estuaries causes severe loss to benthic populations. Studies show that tideflat benthic invertebrate populations at sites where grounding occurs are only 5 to 12% as great as in nearby control areas. This reduction of food organisms affects aquatic life that would otherwise benefit from normal food production. Invertebrate species affected are utilized by fishes of significant sport and commercial value.

In general, the growth rate and hence size of a given species of fish relate to the available food supply. It is well established that larger fish are able to escape predators, compete for food more successfully and produce more economic benefit to fisheries than smaller fish of the same age group.

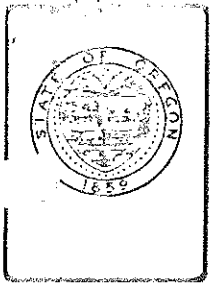
Isthmus Slough was formerly productive of striped bass until water quality declined with an increase in point source pollution and log storage and handling. Elimination of slide dumps and reduction in log storage and point source pollution has resulted in gradual improvement in water quality and reestablishment of striped bass in the slough.

The Department generally favors the phaseout of tideland storage of logs where grounding occurs in Coos Bay and in other Oregon estuaries. We will welcome the opportunity to work with DEQ and the affected industries to select acceptable and economically viable alternatives so that a healthy fish resource can coexist with legitimate water storage and transport of logs.

Sincerely,

James B. Haas, Chief
Environmental Management Section

JBH:ek



Department of Environmental Quality
SOUTHWEST REGION

1937 W. HARVARD BLVD., ROSEBURG, OREGON 97470 PHONE (503) 672-8204
Coos Bay Branch Office - 490 North Second, Coos Bay, OR 97420 - 269-2721

Richard P. Reiter
Regional Manager

February 28, 1979

Charles Walters
National Marine Fisheries Service
P. O. Box 4332
Portland, OR 97208

RE: WQ-Coos County
General - Log Handling

Dear Mr. Walters:

Enclosed is a copy of the Weyerhaeuser Co. rebuttal to our recently completed biological study on intertidal log storage. The specific questions I have regarding Mr. Herrmann's assumptions and conclusions are:

1. How important is the upper bay area? Mr. Herrmann is saying the upper bay is less important because there is less biomass (the lower salinity is the cause), and that importance of an area is strictly according to biomass. Couldn't a case be made that although there is less overall productivity, what there is, is crucial to many species (particularly the juveniles)?
2. With the number of fish species present in the upper bay as juveniles, wouldn't a better measure of productivity loss be numbers of fish rather than biomass of fish? I think it is very misleading to talk about biomass loss of fish when dealing with juvenile fish.
3. Mr. Herrmann made a verbal statement during our meeting that there is no absolute link between invertebrates and fish productivity, since the salmon or other juveniles could simply move on to an area where invertebrates are plentiful. Is that true? What effect does that have on the fish that are forced into more saline water before they are ready?
4. A crucial issue is how quickly the damage to the tidelands occurs from the logs. My guess is that the damage would occur within a week or so. Do you have any feel for this?



Conservation
Recycling
Materials

Charles Walters
February 28, 1979
Page TWO

As we discussed February 28, 1979, we will be meeting the end of March to talk about the report. Any help you can lend on this issue will be very much appreciated. I can be reached at 269-2721 (Coos Bay), or 672-8204 (Roseburg) if you have any questions.

Sincerely,

Barbara A. Burton

Barbara A. Burton
Environmental Specialist

BAB:dp

Encl.



UNITED STATES DEPARTMENT OF COMMERCE
 National Oceanic and Atmospheric Administration
 NATIONAL MARINE FISHERIES SERVICE
 Environmental and Technical Services Division
 P. O. Box 4332, Portland, Oregon 97208

Rich Barb

April 17, 1979

FNW5:DRE

Barbara A. Burton
 Environmental Specialist
 Oregon Department of
 Environmental Quality
 1937 W. Harvard Boulevard
 Roseburg, Oregon 97470

State of Oregon
 DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
 APR 19 1979

JW-Cross Log H.

SOUTHWEST REGIONAL OFFICE

Dear Ms. Burton:

Terry Durkin has responded to us regarding your February 28, 1979 letter to Charles Walters concerning your biological study on intertidal log storage. The following are his comments on your four questions in the order presented in your letter.

"1. An upper estuarine area can be very important. In summer, phytoplankton and zooplankton tend to accumulate there because of low river inflows. Primary and secondary trophic levels provide extensive grazing for smelt, anchovy and herring. Some fall chinook subyearling also utilize the zooplankters but probably concentrate on aquatic insects. Some insect larvae such as chironomids occur as benthic infauna while others are associated with submerged or emergent vegetation. If substrate texture, water velocities, water quality, and turbidity are satisfactory in an upper estuarine site large numbers of benthic amphipods can occur. We have a number of benthic samples taken east of Tongue Point in Cathlamet Bay that indicate densities of 45,000 to 60,000 Corophium salmonis per meter square. Other nearby sites may have densities of oligochaetes or diptera approaching or exceeding 10,000 m². Bivalves, such as Corbicula fluminea may occur in densities exceeding 700 m². Macoma balthica is even more common but found in a more marine habitat.

I should note that with poor substrate, water quality, and high turbidity, a low standing crop of invertebrates could occur in an upper estuarine site.

Obviously the study you cited by Zegers (1978) demonstrates a dramatic reduction in invertebrate densities and biomass at log grounding sites.

2. You certainly make a good point using fish numbers rather than fish biomass. Many species of estuarine fish and decapod shell fish are immature. It is apparent more information is needed to know what the composition of the fish community or assemblage consists of. However, you can easily convert the kilograms of fish to actual numbers with knowledge of the species involved. An 85 mm fall chinook subyearling



averages 5 gms or there are 200 per kg. Coho yearlings are 20 gms or 50 per kg. Shiner perch average 25 gms or 40 per kg, etc. I think it better to describe fish in terms of standing crop because productivity varies dramatically with season, life stage, temperature, energy flow and so on. A short life cycle of 21 to 20 days for some invertebrates may eliminate them from a monthly sampling cycle. Perhaps a better description of aquatic loss would be to rank caloric value of the food organism standing crop since some species eat benthic infauna while others consume benthic epifauna (mysids, crangon shrimp, etc.). By the way the grounding of log rafts should be physically and directly detrimental to the invertebrate epifauna, such as crabs, harpacticoid copepods, shrimp, etc.

3. If there is no link between invertebrates and fish why would they be consuming these invertebrates? We have found chinook, coho, smelt, sculpin, and flounder within the same seine haul consuming only the benthic amphipod Corophium salmonis. These amphipod may be packed into the stomach to a point of distending the intestine walls. Bivalves, diptera, and other amphipods are also extensively used by fish. I don't understand why Mr. Herrmann should make this comment since there is literature available that contradicts him. Forcing fish to move to other areas in search of food is no answer since many juvenile salmonids inhabit the upper 10'-15' of water. Reduction of intertidal and shallow subtidal acreage simply reduces the feeding area for subyearling chinook and chum. Paul Reimer's research team indicates estuarine rearing is essential for survival of fall chinook to adult stage and that available estuarine food may be a limiting factor.

4. The extent and duration of low tides, the depth of the water, the amount of wind or wave action of passing boats are all factors to be considered when predicting how fast and to what degree a benthic invertebrate community is reduced by log grounding. Egg carrying stages of the invertebrate and water temperature are other factors to be considered. It could happen in a day, a week, or as long as a month if there were high flows and the logs rarely grounded. I think it is also important to determine recovery time of all species. Some pioneer types may respond quickly but it would seem that others would be inhibited by the changed substrate texture.

Some additional comments:

The transient log rafting areas were mentioned and though they may not be extensive in area, could cause an extensive loss in invertebrate productive capability. There seems to be a disagreement on the log yard acreage in Coos Bay. Shouldn't it be possible to aerial photograph the bay at a set altitude on monthly or quarterly schedule for a year and establish the acreage accurately. I think county assessors do this now in Clatsop County but only at the end of the year.

A positive point you might offer would be to require all new rafting sites be placed where water depths exceed +8.0 above mlw. This should reduce grounding dramatically. A phased shift of other established rafting areas might be considered to also utilize greater depth and reduce storage impacts.

It would appear that Zeger's study indicated a reduction in biomass in the control areas near the rafts. This would suggest there is an additional impact. These lower numerical values appear to be used to reflect total biomass through the upper estuarine area and may not represent the biota 100 yards away. The study does establish how limited the biota is below log rafts.

Smith's work in the Snohomish River estuary has been mentioned regarding log rafts effects on biota. His work includes many statistical approaches, however, it essentially is dependent upon 5.07 cm² core samples. These cores are about one inch in diameter, and in my opinion of limited value. My experience is that substrate consists of homogenous population areas and also areas of numerical patchiness. If small physical samples are obtained this will lower the numbers of invertebrates and lend itself to statistical application. But it may in fact not represent the true status of an area. A single grab with our .05 m² sampler (Ponar dredge) represents over 80 of Smith's 5.07 cm² samples. O.S.U. uses a 0.1 m² Smith McIntyre dredge which would equal over 160 of Smith's cores. Smith's study has many good points but I would suggest its findings should be qualified where the sampling 5.07 cm² core method was used."

Terry also noted that his research group at Hammond has analyzed over 700 grab samples taken in the Columbia River estuary over the past three years and they fully realize they still have much to learn.

Sincerely,



Dale R. Evans
Division Chief

cc: Terry Durkin

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X

1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101



REPLY TO
ATTN OF: Mail Stop 521

MAY 30 1979

Barbara A. Burton
Department of Environmental Quality
Southwest Region
1937 W. Harvard Blvd.
Roseburg, Oregon 97470

Dear Ms. Burton:

We have reviewed the study entitled "The Effects of Log Raft Grounding on the Benthic Invertebrates of the Coos Estuary", which was recently completed by your agency. This study as well as others referenced in text (e.g., Smith, 1977) clearly show that intertidal log storage adversely impacts benthic communities.

The Environmental Protection Agency is entirely supportive of your efforts to phase out free-fall log dumps, institute debris control and removal measures in log handling areas, and reduce or eliminate intertidal log storage areas. We believe there is ample and conclusive evidence that generally supports the implementation of these types of controls on log handling and storage throughout the Pacific Northwest.

In the Coos Bay estuary, we believe the main issues associated with intertidal log storage are that industry has not (1) clearly demonstrated their needs for such areas, and (2) fully explored and evaluated alternative storage techniques, schedules or areas which may be available and reasonable. We further believe the gain in benthic production which would be realized from removing logs from intertidal storage areas is significant and worthy of a serious alternative evaluation.

If we can be of further assistance, please feel free to call me or Duane Karna of my staff at (206) 442-1352.

Sincerely,

Harold E. Geren, Chief
Permits Branch



Suggested Headings: *Title, Objective, Conclusions and Recommendations*

ATTACHMENT E

TITLE: INTERTIDAL LOG RAFT STORAGE IMPACTS IN COOS BAY, OREGON

OBJECTIVES

The purpose of this report is threefold. First, to briefly review the Oregon Department of Environmental Quality (DEQ) report from the standpoint of technical approach, study findings and conclusions, and to relate the findings to those of other pertinent log raft impact research. Second, to assess the biological implications of the DEQ study to fish production. Third, to summarize our and other's log storage practices in Coos Bay. This latter objective is not an in-depth assessment; however, we now have a better idea of the current acreage used for company log storage.

SUMMARY

1. Intertidal benthic organisms are largely eliminated by log storage on the tideflats, principally through direct destruction (crushing, etc.) of these organisms and by physical alteration of the bottom (extreme softening through kneading and/or extreme compaction). Significant organic material increases in the substrate from bark or other losses from stored logs also depress the benthic infauna; however, direct destruction of the fauna and physical substrate alteration were found to be most important in the DEQ study
2. If logs were removed from intertidal storage areas, the estimated benthic biomass in summer of the areas would amount to 2050 kg (dry weight), compared to minimum biomass estimates of 64 370 kg and 257 000 kg for the benthos on the upper bays's and entire bay's tideflats. The 2050 kg would produce about 1370 kg (live weight) of fish tissue, about 0.6% of the minimum estimated fish production of the whole bay's tideflats.
3. The DEQ study estimate for the maximum bay intertidal area affected by log grounding of 114 ha (6% of the bay intertidal area) is excessive. The current Company intertidal log storage in the bay is about 20 ha, about 1% of the total intertidal area of the bay.

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Author's Signature <i>Robert R. Herrmann</i>	Date 2/26/79
Author's Name (typed)	
Approved By (signature)	Date



Suggested Headings: *Background, Approach, Experimental Results, References, Index Terms and Attachments*

TECHNICAL REVIEW OF THE DEQ REPORT

Four intertidal log storage locations in Coos Bay were investigated: two in Isthmus Slough, another in Cooston Channel (a Weyerhaeuser storage area), and one at Lillian Creek, off the Coos River above the highway bridge. Invertebrate densities were determined from counts of animals present in substrate core samples taken from the log raft storage areas and from control areas adjacent to the storage areas. Sampling was from June 1977 to July 1978. During the study, one study location at the mouth of Isthmus Slough was destroyed by channel dredging; at the other location in the slough, the logs were removed midway through the study, allowing the area to recolonize.

The study was well designed in most respects and paralleled Smith's (1977) log raft research studies on the Snohomish tideflats. No attempt was made to quantitate the substrate chemical and physical character where the samples were taken, however. The qualitative observations made during the sampling indicate bark and other wood debris were present at both the treatment (rafted) and control areas. Water quality testing was for salinity and temperature. Neither dissolved oxygen (DO) nor hydrogen sulfide (H₂S) were measured; these parameters are often affected by log storage (Shaumberg, 1973) and benthic wood deposits (Bella, 1975).

The invertebrate density data from the control and treatment area sampling were compared statistically. There were significantly greater densities in the control areas in almost all instances, indicating intertidal raft storage affected the benthos. Invertebrate biomass estimates were not developed during the study. Most of the samples subsequently have been destroyed, precluding developing such useful information.

I have no qualms about accepting the study results as accurate. Scientifically, the findings that intertidal log storage created temporary biological deserts at the four studied locations is unassailable. Similar findings resulted from the in-depth 1977 study in the Snohomish estuary. However, Smith found that Anisogammarus, a crustacean amphipod and an important fish food, was not harmed by rafting. Indeed, this animal lives on bark on the bottom and on the logs. Anisogammarus apparently was not found in the DEQ study, however.

I concur with Zegers' (DEQ) conclusion that physical alteration of the substrate (kneading - resulting in extreme wateriness) and direct benthos destruction by the logs were the principal causes of the differences in animal numbers between the control and treatment (rafted) sites. Smith also found this to be the case at Everett. Pease (1974) in Alaska found intertidal storage destroyed the benthos through extreme compaction of the sand-gravel substrates in the rafting areas. In studies of subtidal (deep water) log

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storage areas, several researchers have noted shifts in the benthic organism assemblage away from infauna (animals dwelling in the substrate) to epifauna (animals dwelling on the surface of the substrate or on debris on the bottom) (Pease, 1974; McDaniel, 1973; Conlan, 1977; Walker, 1974). While part of this shift seems attributable to debris accumulations covering infauna sites, the above authors and Bella (1975) also indicate anaerobic decomposition products, as H_2S from the wood material in the mud, depress the infauna.

The hypothesis that chronic toxicity of leachates from bark and wood incorporated into the substrate and their breakdown products can contribute to the difference appears to have some validity.

The numbers of animals at Zegers' control sites, immediately adjacent to the raft site, where the substrates were also affected by bark and other organic material, were substantially less than at nearby locations in Coos Bay or similar estuary regions of the Snohomish and Grays Harbor (Tables 1, 2). As an example, the average number of Coprophium (a small, crustacean amphipod which is very important in fish diets) ranged from about 300 to 800/m² in the summer months at the control sites in the DEQ study. These numbers calculate out to a biomass of 0.2 to 0.5 g (dry weight). In some recent work by the Institute of Marine Biology staff in the upper bay, average Corophium biomasses in different intertidal zones ranged from 0.6 to 3.5 g/m², with the average being 2.2 g/m² (McConnaughey, 1972). Further, at Everett, in Steamboat Slough near our pulp mill outfall, we found Corophium biomasses in summer ranging from 1.5 to 5.6 g/m² (average 3.2 g/m²). Smith reports Corophium densities which calculate to 27 g/m².

Further supporting the hypothesis that excessive substrate organics depress benthic productivity, in Grays Harbor and Willapa Bay we found clam densities (Mya, Macoma) and species distributions were correlated with mud organic content (Smith, Herrmann, 1972). Very high organic contents depressed clam densities. Unfortunately, Zegers did not analyze for chemical oxygen demand (COD) or total volatile solids (TVS) in the mud, so I have no way of comparing the organic levels he was dealing with to what we have found in our studies. In sampling tideflat chemical and physical character in Grays Harbor, we found a 0.96% carbon content at nonrafting locations and 1.56% at raft sites (Herrmann, 1971). Smith (1977) reports TVS levels of 6.9% and 9.9% in rafted areas compared to a mean of 6.3% for the surrounding areas.

Another explanation of the paucity of animals at the DEQ control sites and their small size (P. Zegers, personal communication) relates to the brackish (low salinity) environment where most of the log storage occurs. Remane and Schlieper (1971) in their treatise, "Biology of Brackish Water" point out that both the numbers of species and the animal size within species are diminished in the brackish water zone, compared to the variety and size of animals in areas at higher salinity.

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During the DEQ study, the rafts were removed from one of the Isthmus Slough study sites. Following removal, benthic fauna began to repopulate the site in much the same manner as occurred in Smith's Snohomish study. Whether the infauna would ever reach the high densities present in areas unaffected by rafting is open to conjecture, however. Studies in subtidal rafting areas where debris accumulations were severe and persistent seem to indicate a permanent shift toward epifauna (Pease, 1974; McDaniel, 1973; Conlan, 1977; Walker, 1978).

In the discussion section of the DEQ report, one point which will need revision is that dealing with the acreage of stored logs. Their acreage estimate is dated (1972), besides being inaccurately transcribed from the original source (the Greenacres report). The log storage acreage question is considered in some detail below.

STUDY FINDINGS IMPLICATIONS TO FISH PRODUCTION

Conley (1977), in a fish and feeding habits study at Snohomish rafting sites, concluded that fish - flounder, sculpins, salmonids, perch, etc. - showed no avoidance of raft storage areas. Water quality in the Snohomish area was good. Overall, water quality in Coos Bay approaches the Snohomish situation. In Isthmus Slough in summer, a low flushing rate combined with elevated BOD in the water column and benthic SOD may result in minimum DO levels which may cause fish to be stressed, however. Not unexpectedly, some of the more sensitive forms may be excluded from this area (Table 3). Thompson (1971) found mainly hardy forms of fish inhabiting Isthmus Slough in the summer - shiner perch, stickelback, sculpins and flounder. Salmonids and striped bass were uncommon. Most of these fish are forage for birds or larger fish, as striped bass. In the upper part of the bay proper, McConnaughey (1972) reports the dominant forms of fish are juvenile sole and flounder, smelt, tom cod, shiner perch and sculpins. Juvenile crab are also abundant. Because conditions are more optimum for fish life, this region is more of a rearing area than Isthmus Slough.

From this literature review, I conclude that fish will be found in proximity to the raft storage areas. Juvenile salmonids will be present in spring and summer as outmigrants, foraging for food. Many of the other forms, as shiner perch and the sculpins, will be present year-round and provide food for birds and such important fish as striped bass. The juvenile flounders, sole and crabs rearing in the area will also provide forage, but will also grow and migrate out of the area, into the outer bay and/or ocean, to contribute to fisheries in those areas.

Personnel at the Institute of Marine Biology have studied fish feeding habits in Coos Bay; fish feeding habits are also available for other Northwest estuaries. Basically these studies show that the juvenile salmonids (coho, chinook) in estuarial areas feed mainly on amphipods - Corophium and

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Suggested Headings: *Background, Approach, Experimental Results, References, Index Terms and Attachments*

Anisogammarus - followed by shrimp, insects, larval fish and polychaete worms (Tokar, Tollifson, Dennison, 1970; Herrmann, 1971; Conley, 1977). Perch, sculpins and the juvenile sole/flounder assemblage are less specific in food habits and utilize shrimp, crabs, amphipods, clams, worms and fish (Radosh and Fenney, 1970; Thompson, 1971; McConnaughey, 1972; Conley, 1977).

What is the effect of the lost benthic production in the log storage areas on the bay food resource for fish? Corophium, for example, is found intertidally throughout Coos Bay (C of E, 1975) and is very important to juvenile salmonids as well as juvenile forage fish and sole/flounder. Using McConnaughey's average Corophium biomass figure of 2.2 g/m^2 for the standing crop of Corophium for upper Coos Bay in the summer, we arrive 40,700 kg (dry weight) for the entire bay intertidal area ($185 \times 10^5 \text{ m}^2 \times 2.2 \text{ g/m}^2$). The estimated 57 to 114 ha of tidelands taken out of production by log storage (DEQ figures) theoretically would reduce the Corophium standing crop by 1250 to 2500 kg. However, the Corophium estimates for the control sites adjacent to the storage sites actually were much below that reported by McConnaughey, amounting to only 0.33 g/m^2 . Using this lower value to calculate the Corophium biomass on recolonized log raft sites, we arrive at a biomass value between 188 kg and 377 kg. Using an average value of 280 kg (dry weight) and assuming the entire biomass was consumed at a 6:1 conversion efficiency for food to fish flesh (Perkins, 1974), 47 kg (dry weight) or 185 kg live weight of fish tissue would be produced. If the fish tissue were of forage fish - sculpins, perch - which are the most abundant forms in the upper bay, rather than food fish, another 75% or more loss would occur when the forage fish was consumed by, say, a striped bass.

Although the benthic amphipods were indicated in the literature as a very important fish food, the Annelids and Molluscs - worms and clams - which actually dwell in the tideflat substrate (infauna) are secondary food sources. These food resources are more utilized by the bottom-dwelling flounders, sole and sculpins. To derive an estimate of the maximum biomass available from the rafted areas, the mean total biomass figure calculated from the summer density data at control sites in the DEQ study, 2.4 g/m^2 (Table 1), can be multiplied by the theoretical area impacted, 57 to 114 ha. The resultant biomass estimates, 1370 kg to 2740 kg, apply just to the summer period, when maximum numbers occur. These estimates can be compared to a figure of 64 370 kg for benthic biomass in the upper bay calculated for a biomass density of 14.5 g/m^2 (biomass estimate including larger clams, shrimp, worms is 31 g/m^2) in the study by McConnaughey and others (1971) for the 444 ha in the upper bay. Again, using a 6:1 conversion efficiency and the mean total biomass figure in the raft storage areas, 2050 kg dry wt. would be converted to 1370 kg (live wt.) of fish tissue, mainly perch and sculpins. The 2050 kg figure amounts to 3% of the benthos estimate for the upper bay; however, the log rafted intertidal areas amount to about 20% of the upper bay area.

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Applying the same conversion to McConnaughey's biomass figure for the upper bay proper, the live weight of fish tissue produced would be about 43 000 kg; for the whole bay's tideflats the fish flesh figure is 215 000 kg. The estimated gain in fish production of the intertidal log rafted areas, if the rafts were removed, would amount to 0.6% of the figure for the entire bay intertidal areas.

The key point here is that the intertidal areas where logs are stored are not nearly as productive as the rest of the tideflats and would not produce as much benthic biomass per unit area as other areas of the bay proper. The data from the control sites compared to that from other non-raft storage areas show this. Also, for Isthmus Slough, the single major raft storage area, studies have shown depressed water quality in summer and important food fish apparently are uncommon in the area. Increased benthos in this area would only indirectly benefit recreational and food fish through producing more sculpins and shiner perch.

Trends in Log Storage in Coos Bay

Over the period from 1967 to 1978, the Company has stored logs at 23 locations; not all 23 were in use during any year, however, (Table 4). Three of these sites - at the mill, and the Dellwood and Alleganey tie-ups - are not considered in the following discussion because rafts at these locations are really in transit rather than in storage. Of the 20 storage locations, 5 are/were in the Coos River and are not directly relatable to biological conditions on the tideflats in the estuary. In the bay, 5 (about 33 ha) of the 15 storage sites were used for loose log storage, rather than for unbroken rafts. The 8-bay raft storage sites have an approximate area of 40 ha.

The total Company acreage used for storage has been reduced over the decade. Particularly, loose log storage has been largely eliminated in favor of additional deep water raft storage. The loose log storage occurs almost wholly on the tideflats.

	1972	1974	1976	1978
River & Bay	72 ha	63 ha	67 ha	65 ha
Bay only	59 ha	52 ha	53 ha	52 ha

The 8 ha reduction in bay storage is a decrease of 15%. The no longer used acreage was wholly intertidal, loose log storage.

Company personnel in past years estimated that about half of their log storage was intertidal, subject to grounding on the tideflats. Half of the Company bay storage acreage for the 1972-1976 period amounts to 26 ha. The best current estimate of the Company's bay intertidal storage is 20 ha, 38% of the

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total, and a reduction of 6 ha. Actual inspection of the storage areas would be necessary, and is recommended, to determine accurately the acreage affected by grounding. This should be done next summer, when minimum tides prevail.

In the DEQ report, the estimate for total log storage in the bay was 231 ha; apparently this is in error, for the data source, the 1974 Greenacres report (text) gives 191 ha for maximum log storage in the bay. The Greenacres report estimates Company maximum bay log storage in 1972 at 61 ha, about the same as the 60 ha I report for 1972. Since our current bay storage is estimated at 52 ha, the DEQ figure certainly seems erroneously high. Further, at this time neither Menasha nor Cape Arago stores logs in the water and the DEQ figure needs to be corrected downward for these acreage reductions. No doubt there have been other log storage reductions I am not aware of. Thus, the DEQ maximum estimate of 7.5% for the tideflat area affected by raft grounding seems much too high - 4% or less seems more reasonable, based on our current state of knowledge.

To conclude, I don't think the study established an economic benefit - significantly more fish - to be gained by ending all intertidal storage. Balanced against the economics of water storage, the benthos loss does not seem significant.

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**Table 1 Benthic Invertebrate Abundance And Biomass Near Three
Coos Bay Log Raft Storage Sites
(Based on DEQ Data, 1977-1978)**

	Avg wt (mg)	Cooston Channel		Lillian Creek		Isthmus Slough	
		No/m ²	G/m ²	No/m ²	G/m ²	No/m ²	G/m ²
Annelids							
<u>Manayukia</u>	} 0.01 ¹	202	Tr	556	Tr	1189	Tr
<u>Pseudoamphicteis</u>							
<u>Aphicteis</u>							
Oligochaeta							
<u>Capitella</u>	} 0.3 ²	1151	0.3	60	Tr	-0-	-
<u>Heteromastis</u>							
<u>Neanthes</u>	} 0.3 ²	193	0.1	296	0.1	1134	0.3
<u>Nereis</u>							
Crustaceans							
<u>Corophium</u>	} 0.67 ¹	797	0.5	270	0.2	465	0.3
<u>Anisogammarus</u>							
Molluscs							
<u>Macoma</u>	} 7.5 ¹	268	2.0	450	3.4	-0-	-
<u>Tellina</u>							
TOTAL BIOMASS			2.9		3.7		0.6

¹From Firth and Hermann, 1976.

²Estimated weight; based on P. Zegers personal communication.

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Table 2 Benthic Invertebrate Abundance and Estimated Biomass From Everett
Grays Harbor and Coos Bay Estuarine Areas

	Avg wt (mg)	Everett Estuary - Steamboat Slough				Grays Harbor- So.Channel		Coos Bay- Upper Bay
		Smith 1977 (8/75 data)		Firth, Hermann 1976 (6/76 data)		Weyerhaeuser unpublished (April, 1977 data)		McConnaughey, 1972 (summer, 1971 data)
		No/m ²	G/m ²	No/m ²	G/m ²	No/m ²	G/m ²	G/m ² ¹
Annelids								
<u>Manayunkia</u>	} 0.01	233 899	2.3	6 842	0.07	169 368	1.7	
<u>Pseudoamphicteis</u>								
<u>Amphicteis</u>	} 0.3 ³	1 503	0.4	-0-	-	-0-	-	7.2*
<u>Oligochaeta</u>								
<u>Capitella</u>								
<u>Heteromastis</u>	} 0.3 ³	877	0.3	-0-	-	-0-	-	
<u>Neanthes</u>								
<u>Nereis</u>								
Crustaceans								
<u>Corophium</u>	} 0.67 ²	40 355	27.0	4 839	3.2	3 473	2.3	2.2
<u>Anisogammarus</u>								
		7 357	nd	474	nd	-0-	-	0.1
Molluscs								
<u>Macoma</u>	} 7.5 ²	2 191	16.4	716	5.4	2 714	20.4	5.0
<u>Tellina</u>								
TOTAL BIOMASS			46.4		8.7		24.4	14.5

¹Biomass data from cited report; larger invertebrates: crabs, mud shrimp, Mya clams, etc. omitted.

²From Firth and Hermann, 1976.

³Estimated weight.

*Includes additional species and genera, mostly larger forms.

Table 3 Important Estuarine Fishes Of Upper Coos Bay And Their Benthic Food Preferences

	Abundance Ranking*		Food Ranking:** Primary (Prim); Secondary (Sec)											
	Isthmus Slough	Upper Bay	Shrimp/Crabs		Amphipods		Clams		Worms		Insects		Fish	
			Prim	Sec	Prim	Sec	Prim	Sec	Prim	Sec	Prim	Sec	Prim	Sec
Shiner Perch A+J	1	1		2,3	1,3	2	1,2			2		3		2
Staghorn Sculpin A+J	3	2	1,2,4	3	1,3	4		1,2,4		1,2,3		3,4	4	3
Starry Flounder J	5	4	1,2	3	1,3			1,2		1,2				1,3
Stickelback A+J	2	present			3							3		
English Sole J	absent	3	1	2	1	2	2	1		1				1
Smelt A+J	4	5	1		1				1					1
Tomcod A+J	absent	6	1		1									
Striped Bass J	present	present	3											3
Coho Salmon J	present	present	4,6		4,6						6	4		6
Chinook Salmon J	present	present	6	4,5	4,5,6					5	4,5,6		4	5,6

*Based on McConnaughey, 1972; Thompson, 1971; Radosh and Fenney, 1970.

**Based on many studies; referenced in table by study number:

- | | | | |
|---|-------------------------|---|-------------------------------------|
| 1 | McConnaughey, 1971 | 4 | Conley, 1977 |
| 2 | Radosh and Fenney, 1970 | 5 | Hermann, 1971 |
| 3 | Thompson, 1971 | 6 | Tokar, Tollifson and Dennison, 1970 |

Table 4 Weyerhaeuser Log Storage Areas And Acreages In Coos Bay And River, 1967-1978

Log Storage Areas	Hectares			Loose or Rafts	1967	1972	1974	1976	1978
	Deep Water	Inter- tidal	Total						
1. Mill Tie-up	1.5	0	1.5	Rafts	+	+	+	+	+
2. North Bend/Irwin Olsen	5.3		5.3	Rafts	+	+	+	+	+
3. North Port	0	11.3	11.3	Loose	+	+	+	+	-**
4. North Port	0.7	0	0.7	Rafts					+
5. Waterford	0	11.5	11.5	Loose	+	+	+	+	+
6. Waterford	2.7	1.8	4.5	Rafts		+	+	+	+
7. Willanch	0	3.6	3.6	Loose	+	+	-**		
8. Lillianthal	2.3	1.1	3.4	Rafts	+	+	+	+	+
9. Bull Island (inner)	1.5		1.5	Rafts				+	+
10. Christianson	7.9	1.1	9.0	Rafts	+	+	+	+	+
11. Franz Bull Island		2.1	2.1	Rafts		+	+	+	+
12. McCarthy	1.2	1.3	2.5	Loose	+	+	-**		
13. Evans			8.7	Rafts					+
14. Gunnell			1.2	Loose	+	+	-**		
15. Coos Bulkhead			2.9	Rafts		+	+	+	+
16. Graveyard Point*			5.6	Loose	+	+	+	+	+
17. Graveyard Point			3.1	Rafts	+	+	+	+	+
18. Franz	0.9	1.0	1.9	Rafts		+	+	+	+
19. Morins	2.3	0	2.3	Rafts	+	+	+	+	+
20. Forks		1.2	1.2	Loose	+	+	-**		
21. Forks	1.8	0.4	2.2	Rafts				+	+
22. Dellwood	1.2	0	1.2	Rafts	+	+	+	+	+
23. Alleganey	1.6	0	1.6	Rafts	+	+	+	+	+
			Bay Acreage		47.8	59.4	52.1	53.7	51.8
			River Acreage		12.5	12.5	11.3	13.4	13.4
			Total Acreage		60.3	71.9	63.4	67.1	65.2

*Referenced use through 1972; status unknown in 1978, perhaps phased into raft storage.

**Use of this area ceased.

ABANDONED BOOM AREAS - COOS BAY
February 8, 1979

	ACRES		
	<u>MUD FLATS</u>	<u>SUBMERGED</u>	<u>TOTAL</u>
1. Coos Head Timber Co., Empire	61	29	90
2. Moore Mill, Cape Arago	4	4	8
3. Weyco Boom (Pierce Point)	16	1	17
4. Menasha Boom (Pierce Point)	84	8	92
5. Waterford Boom	29	10	39
6. Port Boom	191	5	196
7. Evans Boom	63	11	74
8. Evans Tie-up (Coalbank Slough)	-	8	8
9. Catching Slough	11	4	15
1.	3	3	6
2.	5	3	8
3.	3	3	6
4.	3	3	6
10. <u>South Slough Area</u>			
Long Island Point Area	23	19	42
Southern-most area near school	6	9	15
11. Davis Slough	<u>30</u>	<u>20</u>	<u>50</u>
GRAND TOTAL - Approximate acres	<u>529</u>	<u>137</u>	<u>666</u>

MEMO:OTHER AREAS NOT INCLUDED IN ABOVE - COOS BAY & TRIBUTARIES

North Slough - Large log dump

Haynes & Larson Slough - Log dump and sawmill

Old Town Mill at North Bend

Menasha Plant at North Bend

Henryville Log Dump & Boom - Isthmus Slough

Delmar Log Dump - Isthmus Slough

STATE OF OREGON
ROUTE SLIP

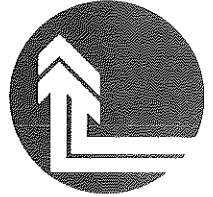
Date 10/15/79
TO: Bill Young *BY*

FROM: Carol

- CHECK
- | | |
|--|--|
| <input type="checkbox"/> Approval | <input type="checkbox"/> Investigate |
| <input type="checkbox"/> Necessary Action | <input type="checkbox"/> Confer |
| <input type="checkbox"/> Prepare Reply | <input checked="" type="checkbox"/> Per Telephone Conversation |
| <input type="checkbox"/> For My Signature | <input checked="" type="checkbox"/> For Your Information |
| <input type="checkbox"/> Your Signature | <input type="checkbox"/> As Requested |
| <input type="checkbox"/> Comment | <input type="checkbox"/> Note and File |
| <input checked="" type="checkbox"/> Initial and Return | <input type="checkbox"/> Return With More Details |

COMMENTS:
Copies sent to EQC and Sawyer

OCT. 79
Lane county



October 10, 1979

Mr. Joseph Richards, Chairman
Environmental Quality Commission
P.O. Box 1760
Portland, Oregon 97207

Dear Mr. Richards:

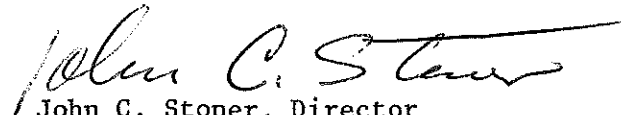
RE: Dexter/Area - Project Class Designation

On October 8, 1979, Mr. Harold J. Youngquist, P.E., our Public Health Engineer, presented testimony at the Sewage Treatment Works Priority List Public Hearing held in Portland by the staff of the Department of Environmental Quality (DEQ).

The basic thrust of Mr. Youngquist's testimony was that the Dexter/Area project, rated Class "D" by DEQ staff merited a Class "A" rating and priority. The argument of this Division is that the rules of the Environmental Quality Commission and the priority criteria established by your staff can lead to no other logical conclusion than the Class "A" designation for the Dexter/Area project if all data is considered.

At this time, we wish to reiterate the position stated by Mr. Youngquist at the public hearing and volunteer to assist your staff in documentation of the information needed to insure Class "A" status for the subject project.

Sincerely,


John C. Stoner, Director
Environmental Health Division

JCS:HJY:ap

Management Services Div.
Dept. of Environmental Quality

RECEIVED
OCT 15 1979

STATE OF OREGON
ROUTE SLIP

Date 10/15/79
TO: Bill Young
Zollits REGIONAL OPERATIONS DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY

FROM: Carol RECEIVED
OCT 16 1979

- CHECK
- | | |
|--|--|
| <input type="checkbox"/> Approval | <input type="checkbox"/> Investigate |
| <input type="checkbox"/> Necessary Action | <input type="checkbox"/> Confer |
| <input type="checkbox"/> Prepare Reply | <input type="checkbox"/> Per Telephone Conversation |
| <input type="checkbox"/> For My Signature | <input checked="" type="checkbox"/> For Your Information |
| <input type="checkbox"/> Your Signature | <input type="checkbox"/> As Requested |
| <input type="checkbox"/> Comment | <input type="checkbox"/> Note and File |
| <input checked="" type="checkbox"/> Initial and Return | <input type="checkbox"/> Return With More Details |

COMMENTS:
Copies sent to EQC, Hector & Burton

OCT. 19

RECEIVED
OCT 15 1979

Myrtle Point, Oregon
October 11, 1979

Environmental Quality Commission
Mr. Joe Richards, Chairman
P. O. Box 1760
Portland, Oregon 97207

Dear Sir:

We understand that the Murphy Co. has now asked for another hearing for a variance on quieting its log carriers. We write to you in an effort to forestall any more variances for that company.

To say that we were shocked and grieved that a variance on the mill's night noise was granted at the end of August is at best an understatement. Despite our letter to the Commission we were not informed of the results of that meeting and only found them out when they appeared in our local paper. We cannot yet believe that our three years and ten months of working with the D.E.Q. on the outrageous mill noise of Murphy's local veneer mill, especially the night noise, has been an exercise in endurance, patience, and utter futility. The mill has only been permitted to enlarge greatly with continuously increasing noise, and despite repeated promises by the D.E.Q. that the mill must comply with standards, there has never been any enforcement whatsoever.

Since your granting them the night noise variance, that noise has escalated greatly, we feel out of spite and the knowledge that nothing will be done to stop them. We are now reduced to sleeping on our dining room floor, as this room has two inside walls which deaden the sound slightly. Thursday night of last week and Monday night of this week, for instance, a large chainsaw was used approximately every five to seven minutes from dinner time until after 12:30 AM when the mill closed. Kevin Murphy, Peter Murphy, their mill foreman, our Chief of Police, and our City Manager all swear time after time that they not only have no chain saw on the premises but there is no need for such a saw. However, chainsaws are used daily and nightly and can be witnessed in action at the mill simply by standing and watching for a few moments. Miss Burton has seen these saws in action and also has seen where one is located inside the mill. They are used as early as 4 A.M. and as late as 1:30 A.M.

We are utterly desperate and desolate to find that a State organization which purports to protect and improve the quality of the environment and has just ruled to protect the tiny marine creatures in Coos Bay apparently has no interest whatsoever in the survival and well-being of the human beings in the area.

We retired here before the Murphys ever came to Myrtle Point. It may be significant for you to know that none of the Murphys lives closer to Myrtle Point than Florence, Oregon. Hence, the mill noise can in no way disturb them. We have been threatened by Kevin Murphy by phone and browbeaten by him in a letter. His foreman, whom we have never seen, talked to, nor called at the mill, is reported to have called the D.E.Q. office in Coos Bay "so angry that his voice was shaking", stating that he wanted to sue the Robinsons for harrassing him.

Kevin Murphy apparently used every means he was capable of thinking of to mislead the Commission. Even in his letter to you before the hearing he did not give you the true facts. The mill right at that time was operating from 5 A.M. until 12:30 A.M., a total of 19½ hours daily. It then went into several weeks of starting at 4 A.M. and closing at 12:30 A.M., a total of 20½ hours daily. From last fall until mid-winter the operation was from 5:00 A.M. to 12:30 A.M., and from mid-winter until late spring it operated from 4:00 A.M. until 1:30 A.M., leaving us only 2½ hours of possible sleeping time. Despite triple windows on our bedroom there is no sleep possible when the mill is operating. The present operation is from 5:00 A.M. until 12:30 A.M., which still is even more than the time agreed on by the Commission in granting the variance. Also, it appears that Kevin Murphy said he polled the area and found no one who objected to the mill noise. I enclose a copy of a petition which I got at the request of our City Manager three years ago which shows that many people in the area of the mill did object. However, several of these people have been forced to move to other locations because of the harassment of the mill. Others were afraid to sign and said so because they either worked for Murphy or another mill, or drove log trucks and felt that signing might in some way jeopardize their jobs. The character of the local people in their fear of becoming involved in any way in any matter is demonstrated by an enclosure from the World newspaper concerning a recent murder here. This makes it very difficult to get outright support even from many who are really disturbed by the mill but are afraid to sign or have their names used.

Mr. Robinson and I are 73 and 66, respectively, and we have a nice home which we expected to live in for the rest of our lives. We are now being forced by the Murphy mill and the State agencies, designed to improve the quality of life, to search for another home in another area and go into debt for the rest of our lives because of the terribly inflated prices of homes now and the fact that we are on a retired income.

Our mental and physical health have been impaired by four years of little or no sleep. We cannot even work in nor enjoy being out in our yard because of the invasion of our privacy by the incessant noise of the mill. This noise trespass has lowered the value our home, which will make selling it more difficult and make the amount we have to borrow to purchase another home greater and more of a burden.

We beg of you not to grant any more variances of any kind to the Murphy Co. and we further request that you rescind the night variance which was granted them in August, as it was obtained under false pretenses. We, also, further request that civil penalties be assessed against this Company which has been declared in violation of the D.E.Q.'s noise standards by the D.E.Q.'s own measurements for almost 4 years with no real intent to comply by the Murphy Co. in all that time.

Does the ordinary citizen who supports these agencies designed to protect and improve the quality of life have recourse to any office whatsoever when industry is concerned? If so, will you please advise us where we can turn now for help in our long and unsuccessful fight to be permitted some peace and sleep in our own home?

We invite you to come to Myrtle Point to see the situation for yourself, if this is possible. We should be overjoyed to talk to you. We thank you for whatever action you might take in our behalf.

Yours Sincerely,

Gertrude P. Robinson

Gertrude P. Robinson

Homer W. Robinson

Homer W. Robinson

706 4th St.

Myrtle Point, Ore. 97458

Myrtle Point



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Vol. 90 No. 9

Thursday, March 1, 1979

Myrtle Point, Coos County, Oregon

Murphy production doubles as firm updates operation

By Tony Beem

Production at the Murphy Veneer Company's mill here has doubled over the last year as the firm updates its operation, members of the Myrtle Point Chamber of Commerce learned at their meeting Tuesday, Feb. 20.

"Our block count is 1,800 to 2,200 per shift," reports local manager Dick St. Onge. "Last year we were averaging 800 to 900 per shift."

St. Onge, who took over the mill superintendent position a year ago, says the updating is expensive but will pay off with increased production. The plant makes veneer sheets which are shipped to Murphy dryer operations and other manufacturers for assembly into plywood.

"We were slow before so nothing functioned as it should," explained the plant operator. "One of the reasons for the speed is a new lathe motor which runs at 2,800 rpm, an increase over the 1,600 rpm old motor."

The overall operation has been analyzed with an eye to making production a smoother, more efficient operation, St. Onge reported.

"The growth in production will generate more revenue," commented the new superintendent. "At the same time, we're working to be a part of the community."

Quieter operation

The firm installed a new barker last January which helped cut plant noise, according to the superintendent. Town residents have complained of noise in the past.

"We're installing plastic liners on the conveyors to help cut noise also," commented St. Onge. "A bigger chip bin allows us to store chips longer so trucks aren't needed all the time. The bin has been here one month."

The Murphy Company is also working to improve onsite appearance and reduce mud and debris on city streets.

Buildings at the site have been painted. The log yard, currently a dirt pollution problem, will be black-topped this spring or summer. Black-top will also be put underneath veneer, barker and other equipment.

"A new addition to the equipment shop will be built," explained St. Onge. "Our old office building may

possibly be replaced this summer also."

The superintendent says all the new construction outlay means more money for the local community.

"We started a spring house cleaning just last week," said the local manager. "We took over 2,000 pounds of scrap iron out and there's lots more."

Many "haywire" assemblies have been located in the production line. "We're planning to boost production even further," says St. Onge.

Busy time

The firm employs 38 workers on two shifts. Demand for wood has resulted in nine hour shifts recently.

St. Onge described the Murphy Veneer Company as "not small, but not big either." The firm has mills in Cushman, Swiss Home, and Spring field. There is a logging operation and a fleet which goes all over the state.

St. Onge has been with the Murphy firm for a year now, but helped trouble shoot a new lathe operation at the plant here a dozen years ago when Irvin Pierce owned the mill.

"Myrtle Point is a friendly town," says St. Onge. "In Eugene I know a lot of people in forestry, but not from other fields. Here you can visit with anyone."

Shots in the neighborhood

No one called the police

By CHARLES KOCHER
Staff Writer

MYRTLE POINT — At least half a dozen shots were fired in a quiet neighborhood of downtown Myrtle Point one evening this month.

No one called the police.

Ronald Lee Rice, 30, allegedly ran out of his house a short time later, screaming that he had shot his mother.

No one called the police.

Aided by passersby, Rice found his way to the police station an hour after the shots were allegedly fired. Only then did

police learn of the death of Rice's mother, Marion Madden Rice.

"I was shocked," says Myrtle Point Crime Prevention Officer Diane Holloway. "Not even one person called in."

According to police reports, an officer at city hall — two blocks away — had heard shots but was unable to determine the direction from which the sound had come.

He went back into the police station to await a report from someone closer to the shooting. No one called.

Rice has been charged with the murder

of his mother and is currently undergoing private psychiatric tests to determine whether he is fit to stand trial and whether he was suffering mental disease or defect at the time of the alleged crime, according to Coos County District Attorney Earl Woods Jr.

Woods, too, was shocked by the thought of area residents hearing the shot and not reporting the disturbance.

"We talked to lots of neighbors," he says of the investigation into the murder, "most of whom heard the shots. We didn't ask why they didn't call; we didn't want to put them off."

Holloway had talked to residents in the area a few weeks before the shooting incident, trying to start up a Neighborhood Watch Program where residents would be aware of who their neighbors are, watch for unusual happenings in their neighborhood and alert police.

"I didn't get that much response," she admits. "I had a hard time getting the neighbors involved. Nobody really wanted to volunteer a home to hold a meeting, though some were interested in talking with me."

All that can be guessed at is that the persons who heard the shots or suspected trouble did not want to "get involved."

The question, then, is how much "involvement" is there in letting the police know about suspicious circumstances? Or how upset would the police be at checking out something that turned out to be harmless?

The second question is easiest to answer, according to Holloway and other police officers.

"We'd rather check out something that was nothing," she explains. "I can't emphasize that enough. If it's suspicious to you, it's worth checking out."

If you've never called the police to report an incident, Holloway (a former dispatcher) explains what you can expect.

"The first thing they would have done is ask your name, the location and other things — try to get as much information as possible."

The importance of that information, she explains, is to aid an officer who answers the call. "His safety is at stake," she says. "He needs to know as much as he can."

Would the police give your name out to

(Continued on Page 3)

Police encourage reports

(Continued from Page 1)
the media or anyone who asked for it?

Probably not, says Holloway. "Most police departments don't give out who reported something. It just doesn't happen that way."

For the press, the description of "a neighbor" or "a passerby" is usually sufficient.

That rule does not hold, however, if you sign a complaint against someone as the victim of a crime. Then the person being

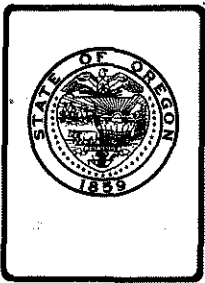
accused has the right to "face his accusers."

If you are not the victim, Holloway continues, you may be asked a few questions about what you heard or saw, but rarely would you be asked to testify in court "unless you actually witnessed the action."

The best way to convince someone that they should "get involved," Holloway says, is to reverse the circumstances. "What if that would have been your

house?" she asks. "You would want your neighbors to call. Or was a hit and run and it was your would have a fit if someone said would not tell the police?"

Why does Holloway think that? Ignored the sound of shots in the house? "They didn't want to get involved. Maybe they didn't think it was or they were in bed and didn't wake up," she guesses. "I just can't understand it."



Victor Atiyeh
Governor

Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

TO: Environmental Quality Commission DATE: October 5, 1979

FROM: William H. Young, *W. Young*
Director DEQ

SUBJECT: Field Burning PSD/Offset Work Plan Progress Report

Background

At the May 25, 1979, Environmental Quality Commission meeting, the Commission considered a petition requesting the development of new rules to require offsets for increased field burning emissions allowed by the passage of Senate Bill 472A. The commission denied the petition and directed the staff to: (a) develop a work plan by August 1, 1979; and (b) to report on progress made toward implementing the schedule by no later than October 1, 1979. This memo has been prepared in response to the Commission's work progress report request.

Work Plan Schedule

The August 9th work plan called for the following progress to be made prior to October 1st:

1. Completion of the initial work plan schedule.

This task was completed on August 9, and distributed to the Commission.

2. Completion of Rule Clarification Tasks.

On June 18, 1979, the U. S. Court of Appeals for the District of Columbia Circuit overturned the PSD regulation adopted by EPA. Because of the court decision, the proposed rules are substantially different than those promulgated earlier in that they clarify questions regarding establishment of the PSD baseline date, the definition of stationary sources subject to Federal PSD and Offset Regulations, and other questions.

The staff has reviewed the proposed regulation as it relates to field burning and has resolved several issues that form the basis for the impact analysis work. A memo discussing these issues and the staff's interpretation of the proposed rule is now under review by legal counsel. In summary, the staff opinion is as follows:



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- (A) Field Burning is not included within the definition of major stationary source for purposes of PSD or Emission Offset review. Increases in field burning emissions after the baseline date must, however, be counted against PSD increments as do increases from other sources.
- (B) The PSD baseline date will be the date upon which EPA received the first complete PSD application (after August 7, 1977) within the Oregon Portion of the Portland Interstate AQCR. It appears that this will be July, 1978.
- (C) Although the Federal Emission Offset rule does not appear to apply to field burning under the new definition, an analysis of the particulate, carbon monoxide, and ozone impact on nonattainment areas must still be completed to demonstrate that control strategies can achieve compliance with standards with the additional field burning emissions. Offsets would be required only to the extent necessary to mitigate violations of; (a) ambient air standards (for particulate, ozone, or carbon monoxide); (b) PSD increments (for particulate and sulfur dioxide) or; (c) to be consistent with adopted standard attainment/maintenance strategies.

The staff's interpretation of the proposed rules, SIP requirements and the Department program needs means that the analysis phase of the work plan will have to address the following issues relative to the increase in field burning impact:

- Amount of PSD increment use for annual and 24-hour periods in Class I and Class II areas for TSP and SO₂.
- Degree of TSP, CO, and O₃ impact on Portland, Eugene-Springfield, and Salem.
- Impact of increase emissions on the "Reasonable Further Progress" projection portion of the Portland and Eugene-Springfield AQMA TSP strategies. Results of this analysis will have to be included in the Eugene-Springfield TSP SIP strategy and will likely delay the January 1, 1980, completion date at least two to three months.
- If offsets are required to mitigate impacts, this analysis must indicate the potential sources and associated impact offset, identification of costs and equity of the alternatives, legal authority and enforceability.

3. Progress Toward Completion of the Impact Analysis.

The Department's impact analysis must be patterned after the proposed EPA rule since the court decision declared that definitions included in the earlier EPA rule (and Oregon's PSD rule) must be revised. The staff will have to make revisions to the State PSD Rule to comply with the ruling.

The basis of the technical analysis of the impact has been established and documented in an Appendix to Field Burning SIP revisions submitted to EPA on September 14, 1979. The approach is based on identifying field burning impacts during the 1978 season, relating the impact to actual acreage, and scaling the impact per acre estimate up to 250,000 acres. Using this technique, estimates of 24-hour and annual impacts will be prepared for Class I and Class II areas.

Progress toward completion of the impact analysis is not proceeding as quickly as estimated due to delay in release of the newly proposed EPA PSD rule. Completion is expected in October.

4. Progress in Identifying Potential Sources of Emission Offset.

The proposed PSD Rule discusses EPA's policy that potential emission offsets meet the following requirements: (a) they must be enforceable under the SIP; (b) the offset must be for the same pollutant as the emission increase and have comparable impacts to health and welfare; (c) the offsetting emission must not have been already committed to in the SIP; and (d) the air quality need not improve or stay the same at every location affected by the increased emissions, but on balance, the affected area should not be adversely impacted.

Given these guidelines and information at hand on source impacts within rural portions of the Willamette Valley most effected by field burning, it appears that slash burning may be an important potential offset. Further analysis of the data must be conducted to evaluate other sources meeting the above criteria in urban, nonattainment areas.

Summation

1. On May 25th, the EQC directed the staff to report on progress made toward completion of field burning PSD-Emission Offset tasks detailed in the August 9th workplan.
2. The staff has completed the first two tasks on schedule, has devised the methods to be used to determine the impact of the increased emissions and has developed guidelines to identify potential sources of emission offsets.
3. Work on the impact analysis phase has been delayed pending receipt of the proposed PSD rule, and requirements to include the impact analysis within the Eugene-Springfield TSP strategy will likely delay completion of the project two to three months. Potential sources of offset work is on schedule.

Environmental Quality Commission

October 5, 1979

Page 4

4. Staff progress is only slightly behind the anticipated schedule at this time, but future delays until March, 1980, are likely. Avoidance of further delays in the schedule will require additional staff resources which have been provided. Should legislative authority to regulate new sources be needed, a substantial delay in rule development could occur. Since the analysis is based on the proposed PSD rule, future changes reflected in the adopted rule could also delay completion.

William H. Young
Director

Attachment

AA2004.2

Send this to:
Field Burning files -
RSD/offsets. after
Distribution
JCL

Distribution list - EAC Report 10/15/79.
Re: Field Burning Offsets.

mail to:

1. All EAC members ✓
2. DEQ
WHY, ESW, SAF, JFK, HMP ✓
3. LRAPA - Joe Lassiter. ✓
4. City of Eugene - Terry Smith ✓
5. State Representatives Fadelay & Kearns ✓
6. Oregon Seed Council. ✓
7. A&D files
8. EPA Region 9 - George Hofer. ✓
9. AOI - Donara ✓
10. Port of Portland - Marge Abbott ✓
11. City of Portland - Cynthia Kurtz ✓

STATE OF OREGON
ROUTE SLIP

Date 10/15/79
TO: WYoung *sh*

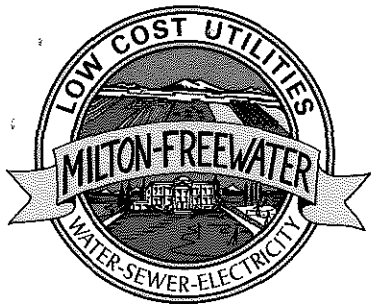
FROM: Carol

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| <input type="checkbox"/> Approval | <input type="checkbox"/> Investigate |
| <input type="checkbox"/> Necessary Action | <input type="checkbox"/> Confer |
| <input type="checkbox"/> Prepare Reply | <input checked="" type="checkbox"/> Per Telephone Conversation |
| <input type="checkbox"/> For My Signature | <input checked="" type="checkbox"/> For Your Information |
| <input type="checkbox"/> Your Signature | <input type="checkbox"/> As Requested |
| <input type="checkbox"/> Comment | <input type="checkbox"/> Note and File |
| <input checked="" type="checkbox"/> Initial and Return | <input type="checkbox"/> Return With More Details |

COMMENTS:

Copies sent to EQC and Gildow

O.C. 79



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CITY OF MILTON-FREEWATER

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October 12, 1979

Office Of
City Manager

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

Management Services Div.
Dept. of Environmental Quality

RECEIVED
OCT 15 1979

Attention: Joe B. Richards

Re: Proposed Fiscal Year 1980 Priority List

October 18th Public Hearing.

Gentlemen:

The City of Milton-Freewater is proposed for a priority ranking of No.90 on the fiscal year '80 Priority List. We have one concern, and objection, which led to this ranking. We believe that in fact our ranking on that list should be somewhat higher in priority, (lower in number).

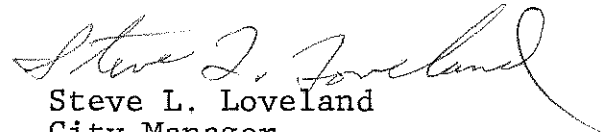
Our concern relates to the stream segment ranking, as computed for the Milton-Freewater project. The Walla Walla River Basin Rank is number 16, statewide. The total population shown for the Walla Walla Basin is 10,300. As previously pointed out (July 28, 1977) the population of this basin is significantly higher. We have previously documented a population in that basin in excess of 54,000. Therefore the proper Basin Rank applied to the Walla Walla River Basin should be No. 8. When this proper ranking is applied to the stream segment point ranking formula, we compute that the stream segment points would increase to 34 instead of the 18 shown for Milton-Freewater. This gives the Milton-Freewater proposal a point total of 141.33. Assuming no other changes in the Priority List, Milton-Freewater should have a relative priority number of No. 83.

We would respectfully request that the Milton-Freewater ranking be revised in accordance with these calculations. We are simply contending that the DEQ criteria be uniformly and fairly applied to all applicants in the State. We are sure that the Environmental Protection Agency would concur with our position. If DEQ does not see fit to revise the Milton-Freewater ranking as requested herein, we would respectfully request an opportunity to review the reasons for the denial.

Environmental Quality Commission
October 12, 1979
Page 2

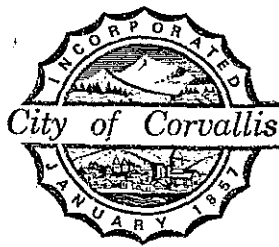
Your attention to this matter and efforts on behalf of local governments in the State Of Oregon are sincerely appreciated. If you should have any questions on this or if I can be of any assistance to you, please don't hesitate to contact me.

Yours very truly,


Steve L. Loveland
City Manager

SLL:pb

1000 10119177 (15)



CORVALLIS CITY HALL
501 S.W. MADISON AVENUE
P.O. BOX 1083
CORVALLIS, OREGON 97330

ADMINISTRATIVE OFFICES

CITY MANAGER 757-6901
MAYOR 757-6901
PERSONNEL 757-6902
PUBLIC WORKS 757-6903
DIRECTOR

October 19, 1979

Department of Environmental Quality
Noise Control Program
P. O. Box 1760
Portland, Oregon 97207

COMMENTS OF THE CORVALLIS AIRPORT COMMISSION AND THE CITY OF
CORVALLIS TO THE ENVIRONMENTAL QUALITY COMMISSION CONCERNING:

DEPARTMENT OF ENVIRONMENTAL QUALITY
PROPOSED NOISE CONTROL REGULATIONS FOR AIRPORTS
CHAPTER 340, OREGON ADMINISTRATIVE RULES

The City of Corvallis and the Corvallis Airport Commission are concerned by noise control regulations proposed by the Department of Environmental Quality. We recognize the importance of controlling excessive airport noise, which can be a nuisance and a hazard to any community. However, for the reasons listed here, we cannot support the current proposed regulations.

In the Director's Memorandum, on page 5, it is stated that "the testimony received from the noise-impacted public was supportive of the proposed rule." This, in itself, is correct. However, what is not stated is that the only testimony received from that "noise-impacted public" was received at the Portland meetings. The hearings conducted in Bend and Eugene received almost unanimous opposition to the proposed rules. The staff reports further states, on page 5, that "many complaints are due to the operations of the Portland Airport, however other airports have been the source of complaints." Corvallis is listed as having been the source of complaints. Upon checking with Mr. Hector, our Airport Manager was informed that this complaint, concerning the operation of National Guard helicopters at the Corvallis Airport, was received in 1972. The complaints from the other airports listed may be similarly questionable. We think this merits investigation before the conclusions stated can be considered valid.

The criterion set for airport noise at an Annual Average Day-Night Airport Noise Level of 55 decibels is too low. We recommend that these standards be set in conformance with current FAA regulations at 65 dBA. On page 6 of the memorandum, it is

stated that "the Ldn 55 decibel level is approximately equivalent to the standards industries must now meet." This is a decibel level for continuous noise. There is only one airport in the state which generates enough aircraft operations to qualify as "continuous". The others generate occasional high decibel levels which the continuous noise level remains fairly low. The staff further states that "even people residing near major freeways... will detect aircraft noise at the airport Ldn 55 decibel contour." The purpose of setting a decibel level for noise control is not to eliminate any noise which might be detected, it is to eliminate any noise which might be hazardous.

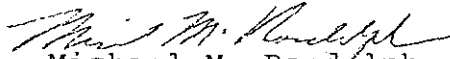
The regulations have been revised so that non-air carrier airports would be monitored only after an unsuccessful effort to resolve a noise problem. This could be acceptable except for the fact that there is no definition of a "noise problem". Must an attempt be made to resolve every complaint, every ten complaints, or a number of complaints received over a given period of time? Since the definition of a problem apparently still lies with the DEQ staff, there is little way to protect even the general aviation airports from arbitrary staff decisions. Further, if the staff is as responsive to future requests for negotiation and to airport needs as they have been in preparing these regulations, then the possibility of regulation becomes a very real threat to the smaller airports.

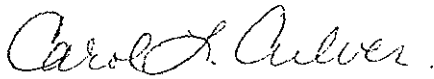
We believe that the list of possible mitigation measures to be included in an airport noise abatement program are ill-advised. For instance, many modifications of takeoff and landing procedures could result in safety hazards which are certainly in the best interest of neither the airport proprietor, the aircraft passengers, nor the surrounding property owners. Establishing a limitation on the number of operations at a specific airport may indeed reduce the income to that airport, possibly thereby reducing the income to the community, and definitely reducing the pool of funds available for other mitigation measures. On the other hand, establishment of higher landing fees for noisier aircraft does nothing at all to reduce the noise, it simply produces more revenue. Shifting the operations to neighboring airports only moves whatever problem may exist in the first place.

Again, we would like to point out that the purpose of these regulations is actually to control noise of aircraft operations in the Portland area. This is dramatically illustrated by examining the Summary of Testimony from the Public Hearings. Items 11, 12, and 13 deal directly with resident complaints and are almost unanimously Portland generated.

We feel very strongly that even the possibility of other carrier airports or any general aviation airports being penalized as a result of problems occurring in Portland is grossly unfair and quite possibly unenforceable.

Very truly,


Michael M. Randolph
Director of Public Works


Carol L. Culver
Airport Manager


Sally Plumley
Chairman, Airport Commission



Port of Portland

Box 3529 Portland, Oregon 97208
503/231-5000
TWX: 910-464-6151

Rec'd 10/19/79
J
B

October 19, 1979

Joe B. Richards, Chariman
Fred Burgess
Albert H. Densmore
Ronald M. Somers
Environmental Quality Commission
P.O. Box 1760
Portland, OR 97207

ENVIRONMENTAL QUALITY COMMISSION MEETING OCTOBER 19, 1979 - PROPOSED NOISE CONTROL REGULATIONS FOR AIRPORTS

The proposed Noise Control Regulations for Airports leave a number of critical questions unanswered. We are proposing a revision to the rule and request you take time to evaluate the material and incorporate it into the rule for adoption at a future Environmental Quality meeting. I would suggest that you consider three points before adopting a rule:

- o The level of regulation imposed by this rule is greater than warranted by the nature of the noise problem in Oregon. The rule does not recognize the efforts of the FAA, airlines and the Port to provide a Noise Abatement Program benefiting the greatest number of people. To address noise abatement a cooperative approach by many agencies is required. This rule does not recognize a cooperative approach.
- o The rule implies that all noise complaints within a large area around the airport (Ldn 55) are a problem and can be solved by the airport proprietor. The rule does not recognize that there is not a reasonable mechanism for mitigating all complaints in this large area. Without a uniform and recognized standard of measure all complaints will become problems and thereby create a false expectation that this rule can and should solve them. I believe that false expectations will be created that noise reductions will result from adoption of this rule rather than improvements in aircraft and other federal actions.

Joe Richards
Page 2
October 19, 1979

- o Outdoor noise levels will not significantly change as a result of this rule. The implementation of most changes in operational procedures is the prerogative of the FAA. The exercise of DEQ responsibility in this area suggests the precipitation of needless conflict. Neither the Port nor the FAA nor the airlines will reduce the level of safety which now exists in order to satisfy the DEQ rule.

We believe the Port of Portland and every airport proprietor is concerned with the problems associated with aircraft noise. Thus we have prepared noise abatement programs for our airports. The Port has and will continue to take steps to the greatest extent it properly may to prevent or correct noise problems within the area identified by several federal agencies as the area of significant noise impact--the Ldn 65. These steps include work with the FAA, airlines and the military to modify operational procedures and assisting local governments to achieve a balance between comprehensive plan and airport needs in the best interests of the public as a whole. We believe substantial progress has been made through the cooperative efforts of various federal, state and local agencies. With this history we do not believe there is a need for a state agency to interfere and even hinder further relief.

If you believe a rule is needed at all, which we do not, you should at least revise the rule to give the airport proprietor the lead in land use planning only within the area of significant noise impact--Ldn 65. Outside the Ldn 65 land use planning is and should remain the responsibility of local governments. Specific wording for this revision is attached.



Lloyd Anderson
Executive Director

Attachment

cc: Glenn Jackson
Anthony Yturri
Fred Klaboe
Pat Amedeo
Mary Bishop

PL37K

ATTACHMENT

PROPOSED REVISION TO DEQ DRAFT

NOISE REGULATIONS FOR AIRPORTS

(4)(c)(c)

A proposed land use and development control plan within the Ldn 65dBA contour should be prepared by the airport proprietor. The plan shall include evidence of good faith efforts by the proprietor to obtain its approval, actions to protect the area from encroachment by non-compatible noise sensitive uses and to plans to resolve conflicts with existing unprotected noise sensitive uses within the Ldn65. The plan is not intended to be a community-wide comprehensive plan; it should be airport-specific, and should be of a scope appropriate to the size of the airport facility and the nature of the land uses in the immediate area.

Following submission of the Noise Abatement Program for EQC approval, a proposed land use and development control plan shall be prepared by any local jurisdiction located between the Ldn 65dBA contour and the Noise Impact Boundary. This plan shall protect the area within the Noise Impact Boundary from encroachment by non-compatible noise sensitive uses and to resolve conflicts with existing unprotected noise sensitive uses.

The Department shall review the comprehensive land use plan of the affected local governments to ensure that reasonable policies and programs have been adopted recognizing the local governments responsibility to support the proprietor's efforts to protect the public from excessive airport noise.

Appropriate actions under these plans may include:

(Items I through XI)

STATEMENT BEFORE ENVIRONMENTAL QUALITY COMMISSION

Rec'd 10/19/79
QB

BY

PAUL E. BURKET
AERONAUTICS ADMINISTRATOR
Oregon Department of Transportation

ON

PROPOSED AIRPORT NOISE CONTROL REGULATIONS
PORTLAND, OREGON

OCTOBER 19, 1979

1. The Oregon Aeronautics Division and the Department of Transportation have had long-standing and sincere concerns about land-use compatibility in vicinity of airports, including the impact of aircraft noise on sensitive areas.
 - a) Aircraft noise was first formally addressed by Aeronautics in the Oregon Aviation System Plan in 1972-73 and more recently in an "Airport Comprehensive Planning" document produced and distributed by Aeronautics in 1978. This document (handout) provides guidelines and procedures for land use planning and zoning around airports and deals rather extensively with noise as well as other elements such as airspace protection and safety.
 - b) A noise impact element is included in all airport Master Plans at Air Carrier Airports beginning with Eugene - 1972. (Eight Plans at total cost of \$1.12 million.) An additional 36 Master Plans (includes 5 updates) have been completed or are now in progress at a total cost of over \$1 million, most of which we participated in financially and with staff time. All

of these contain a noise impact element as well as land use compatibility provisions. These elements, and the plans themselves, are receiving more and more attention through the Comprehensive Planning and Review process. In addition, the Department of Transportation and Aeronautics Division closely review Comprehensive Plans and local ordinances as they relate to airports before they are submitted to LCDC.

Aeronautics and the Oregon Department of Transportation obviously have much more than a "passing" interest, - rather, a genuine concern with all aspects of airport land use compatibility and how they relate to the land use planning processes in Oregon.

2. We are not opposed to the concept of a reasonable and workable rule to control aircraft/airport noise and have so stated a number of times. However, as you know, we have offered testimony stating problems with, and objections to, certain aspects of the proposed rule.

Several of our comments and suggestions have been adopted in the final rule proposal but we still have major concerns that serious flaws remain. These are:

- a) All new airports, regardless of size are required to develop a noise abatement plan, [(4)(a) page 11] while existing airports only need submit an Abatement Plan if the Director requires it after reviewing the noise impact boundary and holding a public hearing. [(4)(b), page 11] (Refer to attached flow chart.)

* * * This is a serious inconsistency which certainly should be corrected prior to adoption.

1. WHY SHOULD WE DISCRIMINATE AGAINST A NEW AIRPORT BY REQUIRING THEM TO SUBMIT AN ABATEMENT PLAN WITHOUT EVEN EXAMINING THE IMPACT BOUNDARY TO SEE IF THEY NEED TO DO SO?
2. The staff report states the rule is written to exclude "small or non-problem airports". WHY THEN DO THE RULES IN THIS SECTION INCLUDE ALL SIZES OF AIRPORT?
3. WHAT ABOUT NEW AIRPORTS THAT DO NOT HAVE AN IMPACT? WILL AN ABATEMENT PLAN BE NECESSARY? ACCORDING TO THIS SECTION IT WOULD.

b) A noise impact boundary is required for all existing air carrier airports and for existing non-air carrier airports which have unresolvable problems (page 10). The data used to calculate the impact boundary is not required from air carrier airports, however, until such time as an Abatement Program is required. (4,A,i-page 12).

* * * This also appears to be a serious deficiency and inconsistency. ON WHAT BASIS CAN THE DEPARTMENT APPROVE AN IMPACT BOUNDARY IF THEY DO NOT KNOW HOW IT WAS CALCULATED?

c) The requirement for DEQ review and approval of an Airport Master Plan appears ambiguous and unclear. [(3)(c)-page 10]

- 1 What is meant by "obtains funding"? (Public funding, private funding?)
- 2 What is meant by "analyze noise impact"? Does this mean supply noise impact boundary? What specifics are to be included in the analysis?
- 3 What will DEQ review and approve, the analysis or the boundary?

* * * THESE ARE TYPICAL OF AMBIGUITIES FOUND THROUGHOUT THE RULE. WHY?

WE HAVE EXPENDED MANY HOURS OFFERING CORRECTIVE COMMENTS, SOME
HAVE BEEN ADOPTED, BUT MANY HAVE NOT.

d) Requirements for submitting noise impact boundary do not specify the year or years that need analysis except where included in a noise abatement program. Not specified in NPCS-37 either. [(3)(a), (b)-page 10]

* * * Predictions should be made for specified time periods. We recommend that these time periods be consistent with our recommended periods for the Abatement Program of existing, 10 and 20 years.

e) Current proposal now requires noise monitoring to verify all mathematical models used to calculate noise contours. Staff report says this is "needed" but gives no reason why. [(7)-page 16]

* * * FAA method should be the approved method of noise contour calculations and predictions, without measurements. If not, DEQ should provide approved method. It is nearly impossible to make a simple adjustment to predicted levels based on field measurements. If such adjustments were made, they would only represent conditions measured at the instant. Future predictions would still be subject to uncertainties inherent in the FAA method. NOISE MONITORING REQUIREMENT, AS WRITTEN, SHOULD BE DELETED.

f) Recommend reconsideration of FAA concurrence requirement and replacement of present version [(d)-page 15] with the proposal by Aeronautics on August 31, 1979.

"(b) Federal Aviation Administration Concurrence. The airport proprietor shall obtain concurrence or approval from the Federal Aviation Administration for any portion(s) of the airport noise abatement program for which such concurrence or approval is required. Written evidence of such concurrence or approval, or rejection thereof, shall be made available to the Commission.)

* * * DEQ version will require EQC to debate whether or not airport proprietor made a "good faith" effort. WHAT DOES THAT MEAN?

1 Aeronautics version bases adequacy on presentation of FAA response - yes or no - while DEQ version does not really specify what is required of the proprietor.

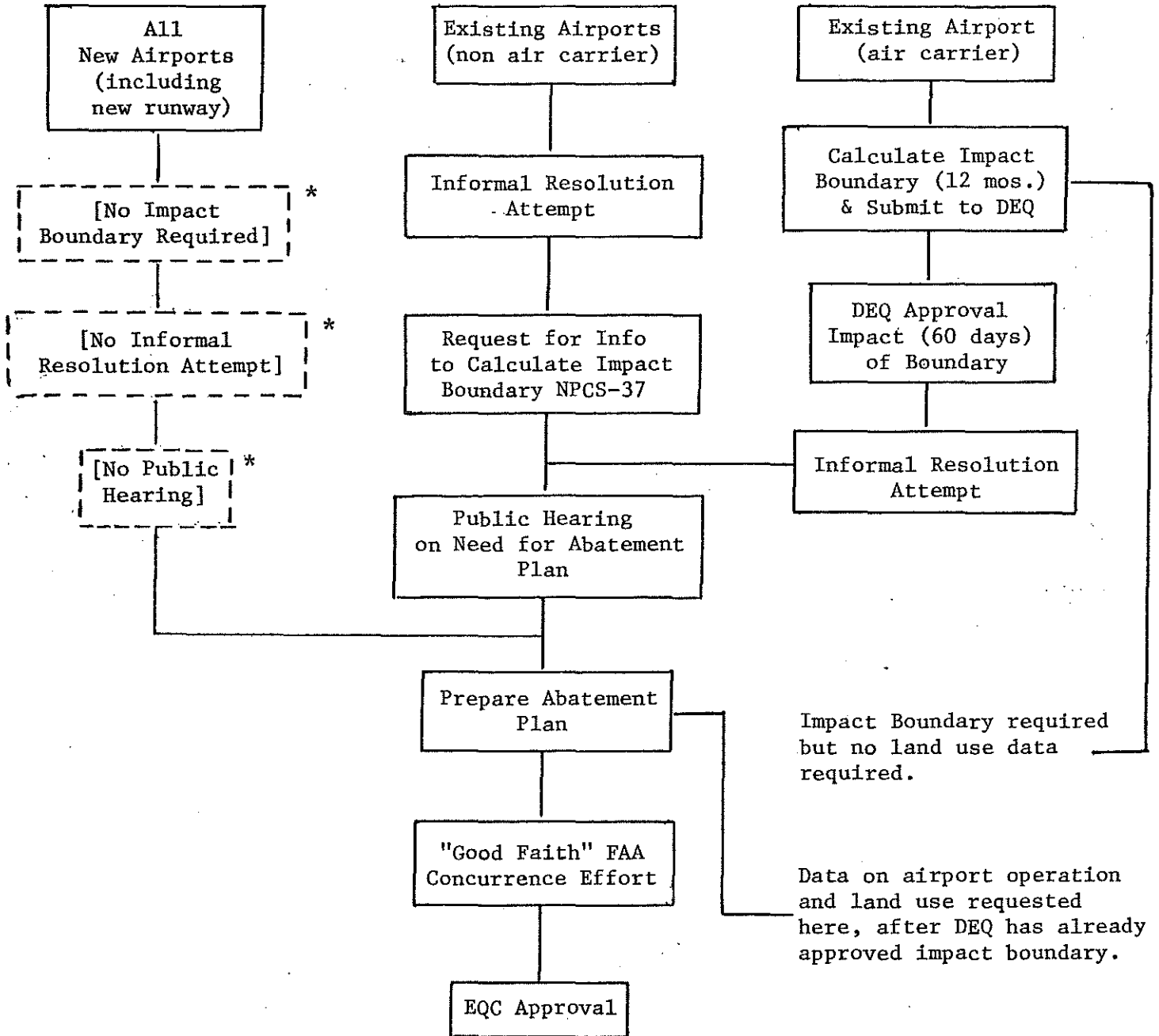
2 Aeronautics version has added benefit of showing that all items in the abatement program requiring FAA approval are consistent with Federal regulations rather than leaving it up to the proprietor to seek approval of any portion he believes requires such approval.

In conclusion, we respectfully but strongly recommend this Commission delay adoption of the proposal as a final rule until the problems we have discussed, and several others I have not touched on, are adequately resolved. It appears that because of the deficiencies I have pointed out here this rule would be extremely time-consuming and costly to administer and manage when what we are all really after is better land use compatibility in all phases of our lives.

We are more than willing, as I think we have already shown, to work with your staff to resolve these problems. A good workable rule that will serve all segments of our society equitably is really the only solution we can afford. None of us can afford a bad rule.

FLOW CHART

SHOWING DEFICIENCIES IN DEQ PROPOSED REGULATION



*Deficiencies discussed under 2 a) and b) of text.

HOME ADDRESS
SANDY RICHARDS
19103 NE HASSALO STREET
PORTLAND, OREGON 97230

MULTNOMAH COUNTY
DISTRICT 22



Rec'd 10/19/79

COMMITTEES
MEMBER:
ENVIRONMENT AND ENERGY
JUDICIARY

HOUSE OF REPRESENTATIVES
SALEM, OREGON
97310

October 18, 1979

Mr. Joe Richards
Chairperson,
Environmental Quality Commission
and Members of the Commission

Dear Members of the Environmental Quality Commission:

I am writing you today with strong support for the adoption of Proposed Noise Control Regulations for Airports (OAR 340-35-045).

My sincere compliments go to Department of Environmental Quality staff for drafting a flexible, yet thorough foundation for airport noise regulation---a most difficult, emerging area to work in.

My personal thanks to both the department and yourselves for responding to the grass roots citizen request for rulemaking to redress a serious community problem. The fine work product before you is also an outstanding example of responsive government.

I urge your adoption ~~for~~ of the proposed rules.

Most sincerely,

Sandy Richards
Rep. Sandy Richards
House District 22

Metropolitan Wastewater Management Commission

NORTH PLAZA LEVEL PSB — 125 EIGHTH AVENUE EAST — EUGENE, OREGON 97401 — TELEPHONE (503) 687-4283

I Rec'd 10/19/79

COMMISSION MEMBERS

Bob Adams—Springfield Councilperson
Vance Freeman—Lane County Commissioner
Pat Hocken—Eugene Lay Representative
Betty Smith—Eugene Councilperson
Sheldon Cross—Springfield Lay Representative
Mark Westling—Eugene Lay Representative
Gary Wright—Lane County Lay Representative

October 18, 1979

Mr. Joe Richards, Chairperson
Environmental Quality Commission
522 S. W. 5th Avenue
Portland, Oregon 97207

SUBJECT: PROPOSED FY80 SEWERAGE WORKS CONSTRUCTION GRANTS PRIORITY LIST

Dear Mr. Richards:

Lane County and the Cities of Springfield and Eugene have been working toward development of a mutually acceptable solution to water quality problems in the Willamette River for many years. In February, 1977 these three agencies entered into an intergovernmental agreement to construct and operate a regional wastewater treatment facility. The regional approach was mandated by EPA as the most cost-effective method for acquiring the treatment capability and capacity necessary to meet DEQ and EPA water quality standards as well as anticipated metropolitan area growth needs. Accordingly, the Metropolitan Wastewater Management Commission (MWMC) was formed and is currently constructing these mandated regional treatment facilities.

The Cities of Eugene and Springfield are faced with a 1983 deadline for meeting more stringent discharge requirements to the Willamette River. It is, therefore imperative that this project must be the most cost-effective possible. Our concern is that the phased funding approach outlined in the FY80 Sewerage Works Construction Grant Priority List may delay completion of the MWMC project until 1985 or beyond. The result will be an unanticipated cost overrun that will impose considerable burden on all taxpayers of the State of Oregon.

As this project is currently the largest in the State, MWMC is most vulnerable to the inflationary impacts of funding delays. In addition, the administrative costs of carrying a project of this size from year to year are considerable. It is this Commission's contention that the delay of projects already under construction is not cost-effective and should therefore be avoided.

MWMC's legal counsel has researched the background of the priority list and funding system established by EPA for the use of construction grant funds. It is our belief that once the priority list is completed, 40 CFR 35.915 requires the State to allocate funds starting with priority project number one to the extent that it can use the funds during the current fiscal year. This allocation scheme appears to be more cost effective than the current system in use by DEQ.

MWMC has performed a preliminary analysis of the fiscal effect of completing projects in their order of priority. A summary of the results is provided in the following table, which shows a net savings to the State of \$713,000 when the highest priority projects are completed first.

EFFECT OF COMPLETE FUNDING OF PROJECTS BY PRIORITY NUMBER
(Costs in \$1,000)

FISCAL YEAR	80	81	82	83
PRIORITY LIST ITEMS:				
Total funds shown on published FY80 priority list	58,558	109,379	70,815	44,161
Total funds assuming complete funding of projects by priority number	58,558	109,379	70,815	43,430*
NET SAVINGS	-0-	-0-	-0-	731

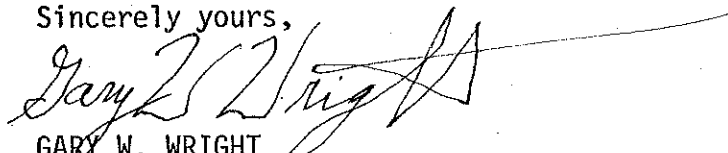
*Assumes inflation equal to 10% per annum, rather than current level of 13%.

Rather than undertaking a great number of projects simultaneously in the face of uncertain funding appropriations, the state should authorize completion of the highest priority projects first. With a further reduction in Federal construction grant monies Oregon could be left with many half-finished projects and no improvements in water quality. Only complete funding and the ensuing operation of wastewater treatment facilities will result in an improvement in water quality and will lead to the most cost effective solution toward the 1983 Clean Water Goal.

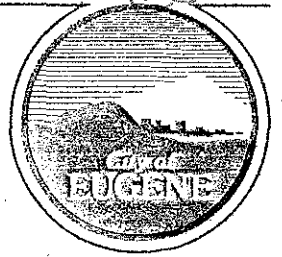
Additionally, we are concerned because the summary of DEQ testimony presented to the EQC fails to present the reasoning behind the requests which were made at the last public hearing. We are therefore requesting that you review the staff recommendation before you, and request the DEQ staff to further review these facts brought before the Environmental Quality Commission and possibly reevaluate their position regarding the FY 80 Priority List funding allocation scheme and its compliance with the spirit and intent of the pertinent Federal regulations.

Thank you for your attention and consideration.

Sincerely yours,


GARY W. WRIGHT
President

Rec'd 10/19/79

MEMORANDUM

October 18, 1979

TO: Environmental Quality Commission
FROM: Terry Smith, Environmental Analyst, City of Eugene
SUBJECT: AIRPORT NOISE RULES

Introduction

The Eugene City Council strongly supports action to safeguard the public from excessive Airport noise and believes a coordinated effort is essential to provide this protection. However, the proposed rule is, in the Council's view, seriously deficient. While the proposed rule quadruples the size of the noise-impacted area we must address, it does not provide additional capabilities for significantly reducing the noise impacted area or for preventing future encroachment of noise-sensitive development into the impacted area. These deficiencies are serious enough that the Council has been unwilling to support the proposed rule without amendments.

One of our major concerns is the proposed Land Use and Development Control Plan Rules. Lane County Commissioners have jurisdiction over the land surrounding Mahlon Sweet Airport. The County and the City have disagreed on development and zoning restrictions even within a 65 decibels noise boundary. This has required the City on several occasions to appeal County construction permit decisions to the County and the Land Conservation and Development Commission (LCDC). The proposed Rule quadruples the area around the Airport requiring noise-sensitive zoning restrictions, but it does not provide adequate methods for assuring cooperation between an airport proprietor and land use planning jurisdiction or for resolving disagreement.

At the August 9, 1979, EQC staff hearing on the Draft Rules, the City outlined Airport noise rules modeled after the Clean Air Act Amendments. Our proposal was designed to correct the deficiencies we perceived in the Draft Rules. We are, again, presenting this proposal to you in the form of specific amendments to the proposed Rules.

AIRPORT NOISE REGULATIONS

October 17, 1979

Page 2

Recommended Amendments to the Proposed Rules

Change Section 35-045-4(c)--page 14 of the Rules

(C) Proposed Land Use and Development Control Plan should be developed by the Proprietor to protect the area within the Airport Noise Impact Boundary from encroachment by noncompatible noise-sensitive uses and to resolve conflicts with existing unprotected noise-sensitive uses within the boundary. The Plan is not intended to be a community-wide

comprehensive plan; it should be airport-specific, and should be of a scope appropriate to the size of the airport facility and the nature of the land uses in the immediate area. Affected local governments shall have an opportunity to participate in the development of the Plan and any written comments offered by an affected local government shall be made available to the Commission. Following approval of a noise-abatement plan, affected local governments shall draft and submit to the Commission for approval within 12 months, airport-specific land use plans and implementing measures or demonstrate that existing plans and measures already exist that are consistent with any approved land use and development control plans contained in the approved Noise Abatement Plan. If a local government fails to obtain approval for an airport land use plan, the Department shall suspend issuing septic tank and sewer construction permits for noise-sensitive developments within the Noise Impact Boundary. Appropriate actions under the plan may include

Justification for the Change

Zoning restrictions are probably one of the most cost-effective noise abatement methods available. Many airports in Oregon, including Mahlon Sweet, do not have jurisdiction over land use planning around their facility. Since the 55 decibel noise impact boundary for air-carrier airports covers a substantial area, development-oriented local governments may be reluctant to restrict development options for such large areas. The staff proposal to review comprehensive land use plans for consistency with noise abatement needs is a very slow, cumbersome process. By the time a new comprehensive land use plan that is consistent with the Airport Noise Abatement Plan has been developed, approved, and reviewed for consistency, significant encroachment of noise-sensitive development could have occurred. The Airport Proprietor will be in the same position he is currently in of having to seek administrative relief through LCDC on a case-by-case basis, but under the proposed rule we must address four times more area.

AIRPORT NOISE REGULATIONS

October 17, 1979

Page 3

The proposed amendment provides appropriate relief in those instances where a local government is not voluntarily cooperative. Without such remedies, the Proprietor and the EQC would be left with having to choose less effective and more costly alternatives for noise abatement such as major restrictions on number and types of operations, purchase-assurance programs, and sound proofing.

Change Section 35-045-4(b)--page 11

After notification, in writing, by the Director, the Proprietor of an existing airport whose Airport Noise Impact Boundary includes noise-sensitive property, shall convene an Airport Noise Abatement Plan Committee to review the extent and severity of the noise impact and develop a cost-effective abatement plan to achieve the two noise criteria. The plan proposed by the committee shall be submitted to the EQC for approval within 12 months of the original notification.

Add to Definition Section 35-015-45

(45) "Airport Noise Abatement Plan Committee" shall develop required noise abatement strategies and shall be composed of two representatives of citizens affected by airport noise, one representative from each of the following:

- a. Public at large;
- b. The elected officials of each general purpose government that has responsibility for land use planning, or is project to have responsibility for land use planning within the Airport Noise Impact Boundaries, or their designee;
- c. The Airport Proprietor or their designee;
- d. Oregon Department of Transportation's Aeronautics Division or its designee;
- e. The Federal Aviation Administration or its designee;
- f. The Land Conservation and Development Commission or its designee;
- g. The air carriers industry; and
- h. The Oregon Pilots Association.

Justification for the Change

While the airport proprietor has been held responsible for airport noise impact, a multitude of agencies, jurisdictions, and private parties indirectly influence the extent of noise impact. Since each of these parties will be involved in the

AIRPORT NOISE REGULATIONS

October 17, 1979

Page 4

development and implementation of abatement plans anyway, bringing these parties into a single body is far more efficient and has numerous advantages. The insulation from public pressure about airport noise enjoyed by FAA and local land-use planners would be removed. Reluctant proprietors and federal and local officials could be immediately confronted by those affected by airport noise. At the same time, major public participation in strategy development would add to the credibility of the strategy and would be extremely valuable in development of revenue for implementing the proposed strategy.

Change Section 35-045--page 10

(2) Airport Noise Criterion. The Primary Criterion for airport noise is an annual average Day-Night airport noise level of 65 decibels. This is a minimum level of protection to be achieved by the operation of these rules as soon as possible. The Secondary Criterion for airport noise is an annual average Day-Night airport noise level of 55 decibels to be achieved by the operation of these rules where practicable. The airport noise criterion is not designed to be a standard for imposing liability or any other legal obligation except as specifically designated within this section.

Justification for Rule Change

The debate, both at the national level among EPA, FAA, and HUD, and at the state level during the drafting of these rules, over whether to establish the airport noise criterion at 65 decibels or 55 decibels reflects an honest difference of opinion from both a technical and regulatory point of view. While there is some debate about whether day-night numerics accurately reflect the impact of airport noise on sleep or speech, the main debate is over the cost-benefit of trying to achieve the lower value of 55 decibels. From the testimony presented, there is no question that achieving 55 decibels will in some cases be very costly, although the exact costs and benefits are not clear. It is clear that no federal assistance funds exist for treating levels below 65 decibels.

Devoting substantial resources to reducing airport noise below the 65 decibel level is an unsound priority when traffic noise above this level is a far more pervasive problem. According to EPA, approximately three-fourths of the U.S. urban population live in areas with Day-Night sound levels over 55 decibels and one-fourth are exposed to 65 decibels or greater levels due to traffic alone!

The staff report states that there is no use for a rule that only extends to 65 decibels. We strongly disagree. First of all, the staff report assumes that all noise problems of 65 decibels or greater have been or will be solved

AIRPORT NOISE REGULATIONS

October 17, 1979

Page 5

and need no further attention. This simply is not true. In our experience, there are enormous problems in meeting even a 65 decibel criterion. Secondly, there is still a need for a single, responsive agency to coordinate airport noise abatement activity.

The proposed rule change establishes a more reasonable regulatory relationship between airport noise and other sources, reflects the substantial economic impact of meeting the lower level while still retaining the desire to achieve the lower criterion. Finally, the change would provide some guidance on the time allowed for implementation of abatement strategies which is currently missing from the Rules.

Change Section 35-045(f)--page 16

(f) Program Revisions. If the Director determines that circumstances warrant a program revision prior to the scheduled five-year review, the Airport Proprietor shall submit to the Commission a revised program within 12 months of notification by the Director. The Director shall make such determination based upon an expansion of airport capacity, increase in use, change in the type or mix of various aircraft utilizing the airport, or changes in land use and development in the impact area that were unforeseen in earlier abatement plans. The Director shall make such a determination following a public informational hearing on the question of necessity.

Justification for Rule Change

The criteria and process for requiring an early program revision should be the same as those requiring abatement programs in the first place.

TS:ky/PW25b7

Approx. Day-Night 55 Decibels
Noise Impact Boundary for 1990

Approx. Day-Night 65 Decibels Noise Impact Boundary for 1990

AUXILIARY MAP 1

The auxiliary maps are intended to show existing and planned public facilities and other subjects which have a relationship to the Plan diagram. While the exact locations of all planned facilities are not known at this time, general locations of most needed facilities are shown on the auxiliary maps. The relationship between capital improvements programming and phasing urban growth is addressed on pages 11-C-13 through 16.

PROPOSED	EXISTING	
○	●	FIRE STATIONS
	▲	MAJOR TRANSIT STATION
	△	MINOR TRANSIT STATION
	★	CENTRAL TRANSIT STATION (Note: From the adopted Eugene-Springfield Area 2000 Transportation Plan)
	⊙	SOLID WASTE
---	---	WATER TRANSMISSION MAINS
○	●	WATER RESERVOIRS
□	■	WATER FILTRATION PLANT
△	▲	WELL FIELDS
□	■	ELECTRICAL SUBSTATIONS
---	---	ELECTRICAL TRANSMISSION LINES

AIRPORT

Outermost extent of the horizontal and conical surface (obstruction and safety zones) for 1990.

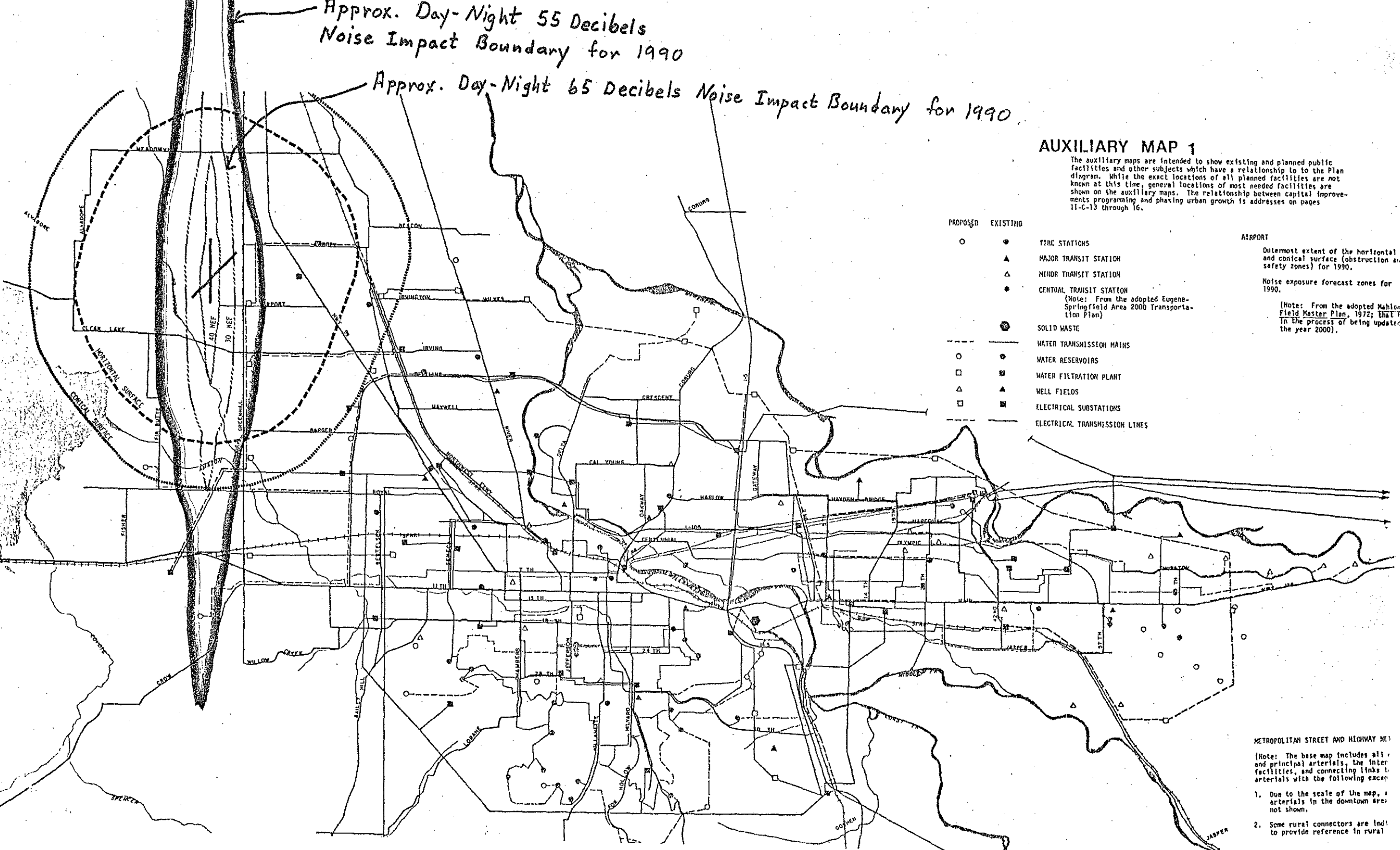
Noise exposure forecast zones for 1990.

(Note: From the adopted Mahlon Field Master Plan, 1972; that Plan is in the process of being updated for the year 2000).

METROPOLITAN STREET AND HIGHWAY NETWORK

(Note: The base map includes all major and principal arterials, the inter-arterials, and connecting links to arterials with the following exceptions:

1. Due to the scale of the map, some arterials in the downtown area are not shown.
2. Some rural connectors are indicated to provide reference in rural areas.





Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

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

• TO: Environmental Quality Commission

FROM: Ernest A. Schmidt

SUBJECT: Groundwater Protection Policy

At its meeting on February 24, 1978, (Attachment 1), the Environmental Quality Commission (EQC) instructed the staff, in cooperation with Multnomah County and CRAG (now Metropolitan Service District), to develop a plan for protection of the groundwater aquifer in Central Multnomah County. On August 25, 1978, (Attachment 2), the EQC reviewed and approved a Multnomah County Groundwater Protection Plan. The goal of the plan was to collect 90 percent of all sanitary and industrial waste from the Inverness/Central Multnomah County Service area and to treat and discharge these wastes to the Columbia River by 1990. The accomplishment of this goal would result in a long-term improvement of groundwater quality and permit the area to fully develop under the Multnomah County Land Use Plan. Approximately 50 to 60 million dollars would need to be expended to implement the plan.

In the last two years, the Department has been contacted regarding the location of solid waste landfills in the Central Multnomah County gravel pits. Four sites are presently being actively considered for landfill proposals: (a) Nash Pit - Northeast Columbia Boulevard and Cully, (b) Columbia Sand and Gravel, 122nd and San Rafael, (c) Portland Sand and Gravel, 106th and Division, and (d) Waybo Construction, 78th and Killingsworth. We have experienced concern that allowing the filling of gravel pits in Central Multnomah County may be in conflict with phasing out cesspools to prevent further contamination of the groundwater. In fact, among the potential landfill sites available in the MSD area, the Multnomah County gravel pits would be the least desirable from the standpoint of risk and non-reversible impact to the groundwater supply should leachate escape. We have pointed out to MSD that gravel pits located downgradient from existing domestic water supplies and with suitable hydrogeological and physical conditions offer the most promise from an environmental standpoint.

Recently, the Department received engineering plans and an application for a Solid Waste Disposal Permit to establish a landfill for building demolition wastes, brush, tree stumps and related materials in a gravel pit (Wash Pit) in Northeast Portland. The proposal indicated that leachate (contaminated drainage) would be allowed to percolate through a layer of soil and enter the regional groundwater table where dilution would occur. The applicant stated that there is currently only one small downgradient groundwater user before the groundwater enters the Columbia Slough. (There is, however, the potential for future development which may draw on the groundwater for use.)

The Department has over the past several years approved a few similar proposals and has monitored the groundwater at these sites. Our water quality data, although skimpy, indicates that significant groundwater contamination occurs immediately below the active disposal area. This contamination is primarily in the form of organic loading which raises the level of chlorides, dissolved solids, Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD).

As the Commission is aware, the Portland Metro area is rapidly using up its existing approved landfill space and desperately needs new sites. At the same time, the Department is charged with the responsibility for protecting the State's water resources and cannot in good faith approve any disposal site which poses a significant threat to water quality. For this reason, the Department is rejecting the proposed landfill site unless the plans are amended to provide positive leachate containment (i.e., no discharge to the groundwater will be permitted). The Department's rationale for rejecting this proposal is as follows:

1. Groundwater is a fragile resource which if contaminated can remain affected for many years.
2. Landfills are known to continue to produce leachate for many years (20+) following closure.
3. No one can accurately predict what the groundwater needs/uses of the downgradient area may be in the future.
4. Solid waste disposal sites should provide the highest and best practicable treatment to protect public health and the environment. This is consistent with the Department's policy in other program areas.
5. The Commission has previously set policy prohibiting increased discharges of organic waste to Columbia Slough.

This decision is precedent setting and the added costs to landfill developers could conceivably prohibit the filling of gravel pits. However, we believe solid waste activities should not be allowed to increase the risk of damage to present or future users of a groundwater aquifer.

In addition, this item is being brought to the EQC because there is a distinct likelihood that one or several developers will appeal the Department's decision to the EQC. Accordingly, the Commission's guidance in this matter is sought.

W

SW684



Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

MEMORANDUM

To: Victor G. Atiyeh, Governor

From: Environmental Quality Commission

Subject: 1979 Amendments to the Administrative Procedures Act

The Commission has reviewed its administrative appeal procedure with a view to the implications of Sections 36 and 36(b). We wish to retain our present procedure which informs the litigants of the findings and analysis of the presiding officer without delegating final decision making authority to him or her. Assuming the new law permits it, we do wish to preserve our discretion to consider at some later time authorizing a more summary procedure for matters involving settled questions of policy or small civil penalties.

Because our procedure does not ensure (and rarely allows) a final agency determination within thirty days, or within any readily determinable finite period, we may need an exemption from that part of the Section 36(2) requirements.

Attached is a copy of OAR 340-11-132, Appeal of Hearing Officer's Final Order. Typically, a contested case matter is heard by one of the Commission's two hearing officers. However, the Commission may itself conduct the hearing. Subsequent to the conclusion of the hearing, the hearing officer issues a Hearing Officer's Final Order. This Order is final only if within 30 days, the Respondent, Department, and the Commission do not initiate Commission review. If Commission review is invoked, the Hearing Officer's Final Order is automatically stayed. Thereafter, the appellant's exceptions to the Order and brief are due in 30 days, the respondent's 30 days thereafter, and a reply 20 days later. In practice, requests for extensions of time within which to file exceptions and briefs are frequent. The nature of the cases suggests that these requests are reasonable and necessary.

Subsection (2) provides that "An agency may by rule specify a period of time after which a proposed order will become final that is different from that specified," i.e., 30 days. If that section is interpreted to mean that an agency may specify a different finite period such as 30 or 90 days, but not an indefinite period, we enlist the exercise of your power to exempt to the extent that a timely notice of appeal be substituted for the issuance of an

¹The enclosed excerpt from a memo drafted by Robert L. Haskins, Assistant Attorney General, discusses this consideration.



amended order as the act serving to stay finality of the hearing officer's recommendation. A similar exemption might be required to allow the Commission to issue multiple extensions under Section 36(3) to allow an adequate amount of time for review of a hearing officer's order.

In effect, the Commission wishes to continue to follow its present procedure set out in OAR 340-11-132 while retaining any option offered by the new law to consider future rule making to increase delegation in limited types of situations. We request that you exercise your power to exempt so as to assure this result.

Joe B. Richards, Chairman

Albert H. Densmore, Vice Chairman

Ronald M. Somers

Fred J. Burgess

Mary Bishop

Attachments

Actually, the Commission's hearings officers' final orders are only final if they are not timely appealed to the Commission. It appears that subsection (1) of section 36 authorizes an agency by rule to make a hearings officer's order final without retaining any right to review before the Commission upon the request of the respondent, the Department or the Commission. Apparently the Governor has serious reservations about the wisdom of doing that. However, he does recognize "that there are some agencies where because of the quality and quantity of their caseload delegation may be desirable." (Emphasis added). It is my opinion that the Commission should give serious consideration to the possibility of delegating authority to its hearings officers in certain, specific cases to issue final orders subject to no additional administrative review by anyone. I suggest that appeals of denials of individual subsurface sewage disposal system permits and variances, and small (for example less than \$100) civil penalties would be good subjects for such delegation. I think that there are some cases, such as those which I have just enumerated, which do not ordinarily involve substantial policy questions which would warrant the Commission's attention or policy direction. Neither do they appear to warrant the substantial amount of time and effort by the investigation and compliance section personnel and attorneys in the Justice Department which is necessary to carry a case to the Commission.

In preparing contested cases for hearings before hearings officers with review available to the Commission and to the appellate courts, the DEQ, with considerable guidance from the Department of Justice, has established a set of procedures for gathering and presenting evidence. These procedures have been established from a conservative point of view.

Effort has been made to assure that in each case competent legal proof is available to prove each material allegation. These procedures have been designed with the more substantial cases in mind. It has been and is my opinion that generally the greater the stakes, the greater the burden will be upon the Department to convince its hearings officers, the Commission and the appellate courts that the enforcement relief that it seeks should be granted. Our evidence-gathering procedures have been designed with that thought in mind. We have not attempted to take great advantage of the "liberal rule of evidence" in administrative law cases. ORS 183.450(1). It is my opinion that in the substantial cases although we could try to cut corners and offer proof which would satisfy the liberal rule but not the court rules of evidence, proof that would satisfy the court rules of evidence is generally more persuasive.

Perhaps unfortunately, it appears that one of the results of the Department's insistence upon such stringent proof has been to discourage field investigators from investigating and referring numerous minor violations. If there were a procedure available which would allow the field investigator to issue a notice in the field assessing a small civil penalty for a violation and if that field investigator should have the responsibility of presenting and arguing that case before a hearings officer, then more grass roots' cases could be handled. Because of the small stakes involved in such cases, the Department in prosecuting the cases could attempt to take greater advantage of the liberal rule of evidence and should be substantially successful in doing so; the magnitude of the cases would not warrant many court appeals. If there are many outstanding violations which are not proceeded against, because of the cumbersome nature of the enforcement process, as I suspect, then by providing a simple enforcement mechanism for those cases, the enforcement process would reach more grass roots' cases which if handled substantially successfully should encourage better respect for the environmental laws and law in general. Furthermore, the hearings and the decisions therein could be simplified. I suspect that many of the cases could be handled similar to traffic court pleas where a respondent would show up and, in effect, plead guilty and argue mitigating circumstances. The hearings officer could also make a ruling at the hearing. The hearings officer is not required to make a written order days after a hearing, although that has been the practice. ORS 183.470 provides that: "Every order adverse to a party to the proceeding, rendered by an agency in a contested case, shall be in writing or stated in the record, may be accompanied by an opinion and a final order shall be accompanied by findings

of fact and conclusions of law." In other words the hearings officer could state his or her findings and conclusions on the record at the hearing. The requirement for "delivering or mailing a copy of the order or accompany findings and conclusions to each party", Id., could be satisfied by making a transcript of that portion of the hearing and sending it to the party. In fact, should the hearings officer find that the Department has failed to prove its case, the hearings officer could rule orally without making any findings or conclusions for the reason that there would be no one to complain, i.e., the DEQ probably would not try to appeal a hearings officer's decision to the court, if it could.

I think that the above described "small claims" procedure for administrative cases is worth a try. Under section 36 of chapter 593 of Oregon Laws 1979, the Commission has the flexibility of setting up such a program unless the Governor exercises his exemption power under section 36b to eliminate the Commission's authority to do so. Therefore, I recommend that the Commission requests the Governor to not exercise his exemption authority so as to eliminate the possibility that the Commission could establish an administrative small claims procedure.

340-11-132 Appeal of Hearing Officer's Final Order.

(1) Hearing Officer's Final Order

In a contested case if a majority of the members of the Commission have not heard the case or considered the record, the Hearing Officer shall prepare a written Hearing Officer's Final Order including findings of fact and conclusions of law. The original of the Hearing Officer's Final Order shall be filed with the Commission, and copies shall be served upon the parties in accordance with section 340-11-097 (regarding service of written notice).

(2) Commencement of Appeal to the Commission

(a) The Hearing Officer's Final Order shall be the final order of the Commission unless within 30 days from the date of mailing, or if not mailed then from the date of personal service, any of the parties or a member of the Commission files with the Commission and serves upon each party a Notice of Appeal. A proof of service thereof shall also be filed, but failure to file a proof of service shall not be a ground for dismissal of the Notice of Appeal.

(b) The timely filing and service of a Notice of Appeal is a jurisdictional requirement for the commencement of an appeal to the Commission and cannot be waived; a Notice of Appeal which is filed or served late shall not be considered and shall not affect the validity of the Hearing Officer's Final Order which shall remain in full force and effect.

(c) The timely filing and service of a sufficient Notice of Appeal to the Commission shall automatically stay the effect of the Hearing Officer's Final Order.

(3) Contents of Notice of Appeal. A Notice of Appeal shall be in writing and need only state the party's or a Commissioner's intent that the Commission review the Hearing Officer's Final Order.

(4) Procedures on Appeal

(a) Appellant's Exceptions and Brief - Within 30 days from the date of service or filing of his Notice of Appeal, whichever is later, the Appellant (appealing party) shall file with the Commission and serve upon each other party written exceptions, brief and proof of service. Such exceptions shall specify those findings and conclusions objected to and reasoning, and shall include proposed alternative findings of fact, conclusions of law, and order with specific references to those portions of the record upon which the party relies. Matters not raised before the Hearing Officer shall not be considered except when necessary to prevent manifest injustice. In any case where opposing parties timely serve and file Notices of Appeal, the first to file shall be considered to be the appellant and the opposing party the cross appellant.

(b) Appellee's Brief - Each party so served with exceptions and brief shall then have 30 days from the date of service or filing, whichever is later, in which to file with the Commission and serve upon each other party an answering brief and proof of service.

(c) Reply Brief - Except as provided in (4)(d) below, each party served with an answering brief shall have 20 days from the date of service or filing, whichever is later, in which to file with the Commission and serve upon each other party a reply brief and proof of service.

(d) Cross Appeals - Should any party entitled to file an answering brief so elect, he may also cross appeal to the Commission the Hearing Officer's Final Order by filing with the Commission and serving upon each other party in addition to an answering brief a Notice of Cross Appeal, exceptions (described above at (4)(a)), a brief on cross appeal and proof of service, all within the same time allowed for an answering brief. The appellant-cross appellee shall then have 30 days in which to serve and file his reply brief, cross answering brief and proof of service. There shall be no cross reply brief without leave of the Chairman or the Hearing Officer.

(e) Briefing on Commission Invoked Review - Where one or more members of the Commission commence an appeal to the Commission pursuant to subsection (2)(a) above, and where no party to the case has timely served and filed a Notice of Appeal, the Chairman shall promptly notify the parties of the issue that the Commission desires the parties to brief and the schedule for filing and serving briefs. The parties shall limit their briefs to those issues. Where one or more members of the Commission have commenced an appeal to the Commission and a party has also timely commenced such a proceeding, briefing shall follow the schedule set forth in subparagraphs (a), (b), (c), (d), and (f) of this subsection (4).

(f) Extensions - The Chairman or a Hearing Officer, upon request, may extend any of the time limits contained in this subsection (4). Each extension shall be made in writing and be served upon each party. Any request for an extension may be granted or denied in whole or in part.

(g) Failure to Prosecute - The Commission may dismiss any appeal or cross appeal if the appellant or cross appellant fails to timely file and serve any exceptions or brief required by these rules.

(h) Oral Argument - Following the expiration of the time allowed the parties to present exceptions and briefs, the Chairman may at his discretion schedule the appeal for oral argument before the Commission.

(i) Scope of Review - In an appeal to the Commission of a Hearing Officer's Final Order, the Commission may substitute its judgment for that of the Hearing Officer in making any particular finding of fact, conclusion of law, or order. As to any finding of fact made by the Hearing Officer the Commission may make an identical finding without any further consideration of the record.

(j) Additional Evidence - In an appeal to the Commission of a Hearing Officer's Final Order, the Commission may take additional evidence. Requests to present additional evidence shall be submitted by motion and shall be supported by a statement specifying the reason for the failure to present it at the hearing before the Hearing Officer. If the Commission grants the motion, or so decides of its own motion it may hear the additional evidence itself or remand to a Hearing Officer upon such conditions as it deems just.



Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

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

October 22, 1979

Honorable Victor Atiyeh
Governor of Oregon
254 State Capitol
Salem, Oregon 97310

Dear Governor Atiyeh:

The Environmental Quality Commission and the Department of Environmental Quality this year will complete their first decade of service to the citizens of the state since the reorganization in 1969. Periodically, it is beneficial for an organization to review objectively its progress, its direction, and if necessary, make adjustments to assure future success and accomplishment of its goals. The EQC believes now is an appropriate time for such a review.

This is to request your assistance for conducting such a review.

This study should have two focal points: Department and Commission impacts on the environment and on citizens; and federal-state relationships. Specifically, I would hope such a study could be designed to address the following:

1. The actual measurable improvements that have resulted to Oregon's air, land and water as a result of programs under the purview of the Commission;
2. The strengths of the program, as well as the identification of any attitudes, behavior or practices that may interfere with the expression of those strengths;
3. The effects on the lives of citizens both from the standpoint of quality of life and burden of regulation;
4. A comparative analysis of the "state of the environment" of this state and the extensiveness of environmental regulation in Oregon compared to other selected states;
5. Adequacy of procedures and resources for the DEQ to evaluate impacts of proposed actions on environment and various segments of the public.



Contains
Recycled
Materials

Honorable Victor Atiyeh
Governor of Oregon
Page 2
October 22, 1979

The federal-state relationship issue is a major question to be explored in light of increasing federal environmental regulation. Specifically, I believe our Commission review should address:

1. The impact (fiscally and environmentally) of U. S. Environmental Protection Agency programs on state programs;
2. The adequacy of state mechanisms for influencing federal regulations as they are in the development process and the processes for forming a state position on such regulations;
3. The decision making process in the state leading to assumption of "primacy" by the state in many of these federal programs;
4. Analysis of the perception on the part of some that Oregon is treated differently than other states by the EPA with respect to requirements made on the state.

You may not be aware that the Commission and the Department have initiated a goals and objectives setting process within the Department and have been using various "involvement" techniques using outside interviews to assess community perceptions of effectiveness of the programs. Nevertheless, I think it important that the Commission have an opportunity to conduct a further constructive review for our own purposes.

The purpose of this letter is to request some needed assistance from within state resources for doing this review. I would suggest a cooperative Executive Department/DEQ staff effort "borrowing" some experts for a limited period to serve on a task force. The task force would report to the Commission. The Commission would wish to retain the discretion to approve the membership of the task force and the study design.

Our Commission sees this as a very positive opportunity to put a yardstick to our environmental programs, to test the perceptions of our citizens and to review the increasing importance of the state-federal relationships.

We would enjoy your cooperation and assisting in that regard.

Sincerely,

Joe B. Richards, Chairman
Environmental Quality Commission

JLS/kz

FOR YOUR INFORMATION LIVELY & WISWALL

644 NORTH A STREET
SPRINGFIELD, OREGON 97477

(503) 747-3354

October 17, 1979

SCOTT M. GALENBECK
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JILL E. GOLDEN
ROBERT A. MILLERMARVIN O. SANDERS
(1912 - 1977)Mr. Joe B. Richards, Chairman
Environmental Quality Commission
777 High Street
Eugene, Oregon 97401State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
R E C E I V E D
OCT 19 1979

OFFICE OF THE DIRECTOR

Dear Joe:

As you know, this firm represents the Metropolitan Waste-water Management Commission. As you are probably also aware, the Commission is vitally concerned with the upcoming decision by the Environmental Quality Commission on the recommendation of the Department of Environmental Quality concerning allocation of funds under the Clean Water Act of 1977 for construction of municipal wastewater treatment works. Our office has done a considerable amount of research into the background of the priority list and funding system as established by the Environmental Protection Agency Regulations for the use of EPA grant funds. We have also compared the proposed priority list from the Department of Environmental Quality with what we believe to be the controlling EPA regulations.

As a result of this analysis, we have concluded that the proposed funding system is contrary to the EPA regulations concerning the establishment of priority lists and funding for local projects. Basically what has happened is DEQ has established a priority list. DEQ has, however, in allocating the funds for fiscal year 1980 and beyond, skipped around on its priority list and has not funded the projects in relationship to their priority on the list to the extent that each of the municipalities can use the funds available during the current fiscal year. The net effect of this process is that lower priority projects are being funded and will be completed before higher priority projects.

We believe this process to be directly contrary to 40 CFR 35.915 which is the Environmental Protection Agency Regulations on establishment of priority lists. It is our belief that once the priority list is completed, the State is required to allocate funds starting with priority project number one to the extent that they can use the funds during the current fiscal year and to the extent they cannot, move on to priority project number two and so forth down the list. In fact, it is our belief that we would be entitled to seek redress in Federal Court to compel the

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October 17, 1979
Mr. Joe B. Richards, Chairman

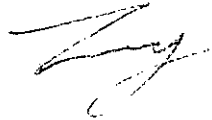
State to comply with the funding requirements of the regulation.

I enclose a copy of 40 CFR 35.915 for your review. I would suggest you review this matter and possibly investigate whether or not the DEQ recommendation complies with the enclosed regulations. It would appear also to be prudent for the Environmental Quality Commission to delay any action concerning the DEQ recommendation until this matter has been resolved.

I would be pleased to discuss this matter further with representatives of EQC, DEQ or the Attorney General's Office.

Very truly yours,

LIVELY & WISWALL



Laurence E. Thorp

LET:jd
Enclosure
cc: William V. Pye
Arl Altman

RULES AND REGULATIONS

State	Percentage
Florida.....	3.8366
Georgia.....	1.9418
Hawaii.....	.7928
Idaho.....	.4952
Illinois.....	5.1943
Indiana.....	2.7678
Iowa.....	1.2953
Kansas.....	.8803
Kentucky.....	1.4618
Louisiana.....	1.2625
Maine.....	.7495
Maryland.....	2.7777
Massachusetts.....	2.9542
Michigan.....	4.1306
Minnesota.....	1.8691
Mississippi.....	.9660
Missouri.....	2.4957
Montana.....	.3472
Nebraska.....	.5505
Nevada.....	.4138
New Hampshire.....	.8810
New Jersey.....	3.5715
New Mexico.....	.3819
New York.....	10.6209
North Carolina.....	1.9808
North Dakota.....	.3107
Ohio.....	6.4655
Oklahoma.....	.9279
Oregon.....	1.2974
Pennsylvania.....	4.3616
Rhode Island.....	.5252
South Carolina.....	1.1766
South Dakota.....	.3733
Tennessee.....	1.5486
Texas.....	4.3634
Utah.....	.4457
Vermont.....	.3845
Virginia.....	1.9802
Washington.....	1.7688
West Virginia.....	1.7903
Wisconsin.....	1.9503
Wyoming.....	.3003
Guam.....	.0744
Puerto Rico.....	1.1734
Virgin Islands.....	.0378
American Samoa.....	.0616
Trust Territory of Pacific.....	.1530
Total.....	100.00

(b) Based on paragraph (a), and table 4 of the committee print, the following authorizations are allotted among the States subject to the limitations of paragraph (c) of this section:

State	For fiscal year 1978	For each of the fiscal years 1979, 1980, 1981
Alabama.....	\$57,789,000	\$64,210,000
Alaska.....	19,057,500	21,175,000
Arizona.....	34,966,500	38,785,000
Arkansas.....	33,808,500	37,565,000
California.....	357,804,000	397,560,000
Colorado.....	41,341,500	45,935,000
Connecticut.....	49,824,000	55,360,000
Delaware.....	17,982,000	19,980,000
District of Columbia.....	14,368,500	15,965,000
Florida.....	172,647,000	191,830,000
Georgia.....	87,381,000	97,090,000
Hawaii.....	35,676,000	39,640,000
Idaho.....	22,284,000	24,760,000
Illinois.....	233,743,500	259,715,000
Indiana.....	124,551,000	138,390,000
Iowa.....	58,288,500	64,765,000
Kansas.....	39,613,500	44,015,000
Kentucky.....	65,781,000	73,090,000
Louisiana.....	56,812,500	63,125,000
Maine.....	33,727,500	37,475,000
Maryland.....	124,996,500	138,885,000
Massachusetts.....	132,939,000	147,710,000
Michigan.....	185,877,000	206,530,000
Minnesota.....	84,109,500	93,455,000
Mississippi.....	43,470,000	48,300,000
Missouri.....	112,306,500	124,785,000

State	For fiscal year 1978	For each of the fiscal years 1979, 1980, 1981
Montana.....	15,624,000	17,360,000
Nebraska.....	24,772,500	27,525,000
Nevada.....	18,621,000	20,690,000
New Hampshire.....	39,645,000	44,050,000
New Jersey.....	160,717,500	178,575,000
New Mexico.....	17,185,500	19,095,000
New York.....	477,940,500	531,045,000
North Carolina.....	89,136,000	99,040,000
North Dakota.....	13,981,500	15,535,000
Ohio.....	290,947,500	323,275,000
Oklahoma.....	41,755,500	46,395,000
Oregon.....	58,383,000	64,870,000
Pennsylvania.....	196,272,000	218,080,000
Rhode Island.....	23,634,000	26,260,000
South Carolina.....	52,947,000	58,830,000
South Dakota.....	16,798,500	18,665,000
Tennessee.....	69,687,000	77,430,000
Texas.....	196,353,000	218,170,000
Utah.....	20,056,500	22,285,000
Vermont.....	17,302,500	19,225,000
Virginia.....	88,209,000	98,010,000
Washington.....	79,596,000	88,440,000
West Virginia.....	80,563,500	89,515,000
Wisconsin.....	87,763,500	97,515,000
Wyoming.....	13,513,500	15,015,000
Guam.....	3,348,000	3,720,000
Puerto Rico.....	52,803,000	58,670,000
Virgin Islands.....	1,701,000	1,890,000
American Samoa.....	2,772,000	3,080,000
Trust Territory of the Pacific Islands.....	6,885,000	7,650,000
Total.....	4,500,000,000	5,000,000,000

(c) The authorizations in paragraph (b) of this section depend on appropriation. Therefore, the Regional Administrator may not obligate any portion of any authorization for a fiscal year until a law is enacted appropriating that fiscal year. If sums appropriated are less than the sums authorized for a fiscal year, EPA will apply the percentages in paragraph (a) of this section to distribute all appropriated sums among the States, and promptly will notify each State of its share. The Regional Administrator may not obligate more than the State's share of appropriated sums.

(d) If supplementary funds are appropriated in any fiscal year under section 205(e) of the Act to carry out the purposes of this paragraph, no State shall receive less than one-half of 1 percent of the total allotment among all States for that fiscal year, except that in the case of Guam, the Virgin Islands, American Samoa, and the Trust Territories not more than thirty-three one-hundredths of 1 percent of the total allotment shall be allotted to all four of those jurisdictions. If for any fiscal year the amount appropriated to carry out this paragraph is less than the full amount needed, the following States will share in any funds appropriated for the purposes of this paragraph in the following percentages, drawn from the note to table 3 of committee print numbered 95-30 of the Committee on Public Works and Transportation of the House of Representatives:

State	Percentage
Alaska.....	5.4449
Delaware.....	7.1459
District of Columbia.....	12.8612
Idaho.....	.3416
Montana.....	10.8755
Nevada.....	6.1352
New Mexico.....	8.4057
North Dakota.....	13.4733
South Dakota.....	9.0178
Utah.....	3.8848
Vermont.....	8.2206
Wyoming.....	14.2135
Total.....	100.00

§ 35.912 Delegation to State agencies.

EPA's policy is to maximize the use of staff capabilities of State agencies. Therefore, in the implementation of the construction grant program, optimum use will be made of available State and Federal resources. This will eliminate unnecessary duplicative reviews of documents required in the processing of construction grant awards. Accordingly, the Regional Administrator may enter into a written agreement, where appropriate, with a State agency to authorize the State agency's certification of the technical or administrative adequacy of specifically required documents. The agreement may provide for the review and certification of elements of: (a) Facilities plans (step 1), (b) plans and specifications (step 2), (c) operation and maintenance manuals, and (d) such other elements as the Regional Administrator determines may be appropriately delegated as the program permits and State competence allows. The agreement will define requirements which the State will be expected to fulfill as part of its general responsibilities for the conduct of an effective preaward applicant assistance program; compensation for this program is the responsibility of the State. The agreement will also define specific duties regarding the review of identified documents prerequisite to the receipt of grant awards. A certification agreement must provide that an applicant or grantee may request review by the Regional Administrator of an adverse recommendation by a State agency. Delegation activities are compensable by EPA only under section 106 of the Act or subpart F of this part.

§ 35.915 State priority system and project priority list.

Construction grants will be awarded from allotments according to the State priority list, based on the approved State priority system. The State priority system and list must be designed to achieve optimum water quality management consistent with the goals and requirements of the Act.

(a) *State priority system.* The State priority system describes the methodology used to rate and rank projects that are considered eligible for assistance. It also sets forth the administrative, management, and public participation procedures required to develop and revise the State project priority list. In developing its annual priority list, the State must consider the construction grant needs and priorities set forth in certified and approved State and areawide water quality management (WQM) plans. The State shall hold a public hearing before submission of the priority system (or revision thereto). Before the hearing, a fact sheet describing the proposed system (including rating and ranking criteria) shall be distributed to the public. A summary of State responses to public comment and to any public hearing testimony shall be prepared and included in the priority system submission. The Regional Administrator shall review and approve the State priority system for procedural completeness, insuring that it is designed to obtain compliance with the enforceable requirements of the Act as defined in § 35.905. The Regional Administrator may exempt grants for training facilities under section 109(b)(1) of the Act and § 35.930-1(b) from these requirements.

(1) *Project rating criteria.* (i) The State priority system shall be based on the following criteria:

- (A) The severity of the pollution problem;
 - (B) The existing population affected;
 - (C) The need for preservation of high quality waters; and
 - (D) At the State's option, the specific category of need that is addressed.
- (ii) The State will have sole authority to determine the priority for each category of need. These categories comprise mutually exclusive classes of facilities and include:
- (A) Category I—Secondary treatment;
 - (B) Category II—More stringent treatment;
 - (C) Category IIIA—Infiltration/inflow correction;
 - (D) Category IIIB—Sewer system replacement or major rehabilitation;
 - (E) Category IVA—New collectors and appurtenances;
 - (F) Category IVB—New interceptors and appurtenances; and
 - (G) Category V—Correction of combined sewer overflows.

(iii) Step 2, step 3 and step 2+3 projects utilizing processes and techniques meeting the innovative and alternative guidelines in appendix E of this part may receive higher priority. Also 100 percent grants for projects that modify or replace malfunctioning treatment works constructed with an

85 percent grant may receive a higher priority.

(iv) Other criteria, consistent with these, may be considered (including the special needs of small and rural communities). The State shall not consider the project area's development needs not related to pollution abatement, the geographical region within the State, or future population growth projections.

(2) *Criteria assessment.* The State shall have authority to determine the relative influence of the rating criteria used for assigning project priority. The criteria must be clearly delineated in the approved State priority system and applied consistently to all projects. A project on the priority list shall generally retain its priority rating until an award is made.

(b) *State needs inventory.* The State shall maintain a listing, including costs by category, of all needed treatment works. The most recent needs inventory, prepared in accordance with section 516(b)(1)(B) of the Act, should be used for this purpose. This State listing should be the same as the needs inventory and fulfills similar requirements in the State WQM planning process. The State project priority list shall be consistent with the needs inventory.

(c) *State project priority list.* The State shall prepare and submit annually a ranked priority listing of projects for which Federal assistance is expected during the 5-year planning period starting at the beginning of the next fiscal year. The list's fundable portion shall include those projects planned for award during the first year of the 5-year period (hereinafter called the funding year). The fundable portion shall not exceed the total funds expected to be available during the year less all applicable reserves provided in § 35.915-1 (a) through (d). The list's planning portion shall include all projects outside the fundable portion that may, under anticipated allotment levels, receive funding during the 5-year period. The Administrator shall provide annual guidance to the States outlining the funding assumptions and other criteria useful in developing the 5-year priority list.

(1) *Project priority list development.* The development of the project priority list shall be consistent with the rating criteria established in the approved priority system, in accordance with the criteria in paragraph (a)(1) of this section. In ranking projects, States must also consider the treatment works and step sequence; the allotment deadline; total funds available; and other management criteria in the approved State priority system. In developing its annual priority list, the State must consider the construction grant needs and priorities set forth in

certified and approved State and areawide WQM plans. The Regional Administrator may request that a State provide justification for the rating or ranking established for specific project(s).

(2) *Project priority list information.* The project priority list shall include the information for each project that is set out below for projects on the fundable portion of the list. The Administrator shall issue specific guidance on these information requirements for the planning portion of the list, including phase-in procedures for the fiscal year 1979 priority planning process.

- (i) State assigned EPA project number;
 - (ii) Legal name and address of applicant;
 - (iii) Short project name or description;
 - (iv) Priority rating and rank of each project, based on the approved priority system;
 - (v) Project step number (step 1, 2, 3, or 2+3);
 - (vi) Relevant needs authority/facility number(s);
 - (vii) NPDES number (as appropriate);
 - (viii) Parent project number (i.e., EPA project number for predecessor project);
 - (ix) For step 2, 3, or 2+3 projects, indication of alternative system for small community;
 - (x) For step 2, 3, or 2+3 projects, that portion (if any) of eligible cost to apply to alternative techniques;
 - (xi) For step 2, 3, or 2+3 projects, that portion (if any) of eligible cost to apply to innovative processes;
 - (xii) For step 3 or 2+3 projects, the eligible costs in categories IIIB, IV, and V (see § 35.915(a)(1)(ii));
 - (xiii) Total eligible cost;
 - (xiv) Date project is expected to be certified by State to EPA for funding;
 - (xv) Estimated EPA assistance (not including potential grant increase from the reserve in § 35.915-1(b)); and
 - (xvi) Indication that the project does or does not satisfy the enforceable requirements provision, including (as appropriate) funding estimates for those portions which do not meet the enforceable requirements of the Act.
- (d) *Public participation.* Before the State submits its annual project priority list to the Regional Administrator, the State shall insure that adequate public participation (including a public hearing) has taken place as required by subpart G of this part. Before the public hearing, the State shall circulate information about the priority list including a description of each proposed project and a statement concerning whether or not it is necessary to meet the enforceable requirements of the Act. The information on the

proposed priority list under paragraph (c)(2) of this section may be used to fulfill these requirements. This public hearing may be conducted jointly with any regular public meeting of the State agency. The public must receive adequate and timely statewide notice of the meeting (including publication of the proposed priority list) and attendees at the meeting must receive adequate opportunity to express their views concerning the list. Any revision of the State priority list (including project bypass and the deletion or addition of projects) requires circulation for public comment and a public hearing unless the State agency and the Regional Administrator determine that the revision is not significant. The approved State priority system shall describe the public participation policy and procedures applicable to any proposed revision to the priority list.

(e) *Submission and review of project priority list.* The State shall submit the priority list as part of the annual State program plan under subpart G of this part. A summary of State agency response to public comment and hearing testimony shall be prepared and submitted with the priority list. The Regional Administrator will not consider a priority list to be final until the public participation requirements are met and all information required for each project has been received. The Regional Administrator will review the final priority list within 30 days to insure compliance with the approved State priority system. No project may be funded until this review is complete.

(f) *Revision of the project priority list.* The State may modify the project priority list at any time during the program planning cycle in accordance with the public participation requirements and the procedures established in the approved State priority system. Any modification (other than clerical) to the priority list must be clearly documented and promptly reported to the Regional Administrator. As a minimum, each State's priority list management procedure must provide for the following conditions:

(1) *Project bypass.* A State may bypass a project on the fundable portion of the list after it gives written notice to the municipality and the NPDES authority that the State has determined that the project to be bypassed will not be ready to proceed during the funding year. Bypassed projects shall retain their relative priority rating for consideration in the future year allotments. The highest ranked projects on the planning portion of the list will replace bypassed projects. Projects considered for funding in accordance with this provision

must comply with paragraph (g) of this section.

(2) *Additional allotments.* If a State receives any additional allotment(s), it may fund projects on the planning portion of the priority list without further public participation if:

(i) The projects on the planning portion have met all administrative and public participation requirements outlined in the approved State priority system; and

(ii) The projects included within the fundable range are the highest priority projects on the planning portion.

If sufficient projects that meet these conditions are not available on the planning portion of the list, the State shall follow the procedures outlined in paragraph (e) of this section to add projects to the fundable portion of the priority list.

(3) *Project removal.* A State may remove a project from the priority list only if:

(i) The project has been fully funded;

(ii) The project is no longer entitled to funding under the approved priority system;

(iii) The Regional Administrator has determined that the project is not needed to comply with the enforceable requirements of the Act; or

(iv) The project is otherwise ineligible.

(g) *Regional Administrator review for compliance with the enforceable requirements of the Act.* (1) Unless otherwise provided in paragraph (g)(2) of this section, the Regional Administrator may propose the removal of a specific project or portion thereof from the State project priority list during or after the initial review where there is reason to believe that it will not result in compliance with the enforceable requirements of the Act. Before making a final determination, the Regional Administrator will initiate a public hearing on this issue. Questioned projects shall not be funded during this administrative process. Consideration of grant award will continue for those projects not at issue in accordance with all other requirements of this section.

(i) The Regional Administrator shall establish the procedures for the public notice and conduct of any such hearing, or, as appropriate, the procedures may be adapted from existing agency procedures such as § 6.400 or §§ 123.32 and 123.34 of this chapter. The procedures used must conform to minimum Agency guidelines for public hearings under part 25 of this chapter.

(ii) Within 30 days after the date of the hearing, the Regional Administrator shall transmit to the appropriate State agency a written determination about the questioned projects. If the Regional Administrator determines

that the project will not result in compliance with the enforceable requirements of the Act, the State shall remove the project from the priority list and modify the priority list to reflect this action. The Regional Administrator's determination will constitute the final agency action, unless the State or municipality files a notice of appeal under part 30, subpart J of this subchapter.

(2) The State may use 25 percent of its funds during each fiscal year for projects or portions of projects in categories IIIB, IVA, IVB, and V (see § 35.915(a)(1)(ii)). These projects must be eligible for Federal funding to be included on the priority list. EPA will generally not review these projects under paragraph (g)(1) of this section to determine if they will result in compliance with the enforceable requirements of the Act. The Regional Administrator will, however, review all projects or portions thereof which would use funds beyond the 25-percent level according to the criteria in paragraph (g)(1) of this section.

(h) *Regional Administrator review for eligibility.* If the Regional Administrator determines that a project on the priority list is not eligible for assistance under this subpart, the State and municipality will be promptly advised and the State will be required to modify its priority list accordingly. Elimination of any project from the priority list shall be final and conclusive unless the State or municipality files a notice of appeal under part 30, subpart J of this subchapter.

§ 35.915-1 Reserves related to the project priority list.

In developing the fundable portion of the priority list, the State shall provide for the establishment of the several reserves required or allowed under this section. The State shall submit a statement specifying the amount to be set aside for each reserve with the final project priority list.

(a) *Reserve for State management assistance grants.* The State may (but need not) propose that the Regional Administrator set aside from each allotment a reserve not to exceed 2 percent or \$400,000, whichever is greater, for State management assistance grants under subpart F of this part. Grants may be made from these funds to cover the reasonable costs of administering activities delegated to a State. Funds reserved for this purpose that are not obligated by the end of the allotment period will be added to the amounts last allotted to a State. These funds shall be immediately available for obligation to projects in the same manner and to the same extent as the last allotment.

(b) *Reserve for innovative and alternative technology project grant in-*

crease. Each State shall set aside from its annual allotment a specific percentage to increase the Federal share of grant awards from 75 percent to 85 percent of the eligible cost of construction (under § 35.908(b)(1)) for construction projects which use innovative or alternative waste water treatment processes and techniques. The set-aside amount shall be 2 percent of the State's allotment for each of fiscal years 1979 and 1980, and 3 percent for fiscal year 1981. Of this amount not less than one-half of 1 percent of the State's allotment shall be set aside to increase the Federal grant share for projects utilizing innovative processes and techniques. Funds reserved under this section may be expended on projects for which facilities plans were initiated before fiscal year 1979. These funds shall be reallocated if not used for this purpose during the allotment period.

(c) *Reserve for grant increases.* The State shall set aside not less than 5 percent of the total funds available during the priority list year for grant increases (including any funds necessary for development of municipal pretreatment programs) for projects awarded assistance under § 35.935-11. The funds reserved for this purpose shall be reallocated if not obligated. Therefore, if they are not needed for grant increases they should be released for funding additional projects before the reallocation deadline.

(d) *Reserve for step 1 and step 2 projects.* The State may (but need not) set aside up to 10 percent of the total funds available in order to provide grant assistance to step 1 and step 2 projects that may be selected for funding after the final submission of the project priority list. The funds reserved for this purpose shall be reallocated if not obligated. Therefore, they should be released for funding additional projects before the reallocation deadline.

(e) *Reserve for alternative systems for small communities.* Each State with a rural population of 25 percent or more (as determined by population estimates of the Bureau of Census) shall set aside an amount equal to 4 percent of the State's annual allotment, beginning with the fiscal year 1979 allotment. The set-aside amount shall be used for funding alternatives to conventional treatment works for small communities. The Regional Administrator may authorize, at the request of the Governor of any non-rural State, a reserve of up to 4 percent of that State's allotment for alternatives to conventional treatment works for small communities. For the purposes of this paragraph, the definition of a small community is any municipality with a population of 3,500 or less, or highly dispersed sections of

larger municipalities, as determined by the Regional Administrator. In States where the reserve is mandatory, these funds shall be reallocated if not obligated during the allotment period. In States where the reserve is optional, these funds should be released for funding projects before the reallocation deadline.

§ 35.917 Facilities planning (step 1).

(a) Sections 35.917 through 35.917-9 establish the requirements for facilities plans.

(b) Facilities planning consists of those necessary plans and studies which directly relate to the construction of treatment works necessary to comply with sections 301 and 302 of the Act. Facilities planning will demonstrate the need for the proposed facilities. Through a systematic evaluation of feasible alternatives, it will also demonstrate that the selected alternative is cost-effective, i.e., is the most economical means of meeting established effluent and water quality goals while recognizing environmental and social considerations. (See appendix A to this subpart.)

(c) EPA requires full compliance with the facilities planning provisions of this subpart before award of step 2 or step 3 grant assistance. (Facilities planning initiated before May 1, 1974, may be accepted under regulations published on February 11, 1974, if the step 2 or step 3 grant assistance is awarded before April 1, 1980.)

(d) Grant assistance for step 2 or step 3 may be awarded before approval of a facilities plan for the entire geographic area to be served by the complete waste treatment system of which the proposed treatment works will be an integral part if:

(1) The Regional Administrator determines that applicable statutory requirements have been met (see §§ 35.925-7 and 35.925-8); that the facilities planning related to the proposed step 2 or step 3 project has been substantially completed; and that the step 2 or step 3 project for which grant assistance is made will not be significantly affected by the completion of the facilities plan and will be a component part of the complete system; and

(2) The applicant agrees to complete the facilities plan on a schedule the State accepts (subject to the Regional Administrator's approval); the schedule shall be inserted as a special condition in the grant agreement.

(e) Facilities planning may not be initiated before award of a step 1 grant or written approval of a plan of study (see § 35.920-3(a)(1)) accompanied by reservation of funds for a step 1 grant (see §§ 35.925-18 and 35.905). Facility planning must be based on load allocations, delineation of facility

planning areas and population projection totals and disaggregations in approved water quality management (WQM) plans. (See paragraph 8a(3) of appendix A.) After October 1, 1979, the Regional Administrator shall not approve grant assistance for any project under this subpart if such facility-related information is not available in an approved WQM plan, unless the Regional Administrator determines, in writing, based on information submitted by the State or the grantee, that the facility-related information was not within the scope of the WQM work program, or that award of the grant is necessary to achieve water quality goals of the Act.

(f) If the information required as part of a facilities plan has been developed separately, the facilities plan should incorporate it by reference. Planning which has been previously or collaterally accomplished under local, State, or Federal programs will be utilized (not duplicated).

§ 35.917-1 Content of facilities plan.

Facilities planning must address each of the following to the extent considered appropriate by the Regional Administrator:

(a) A description of the treatment works for which construction drawings and specifications are to be prepared. This description shall include preliminary engineering data, cost estimates for design and construction of the treatment works, and a schedule for completion of design and construction. The preliminary engineering data may include, to the extent appropriate, information such as a schematic flow diagram, unit processes, design data regarding detention times, flow rates, sizing of units, etc.

(b) A description of the selected complete waste treatment system(s) of which the proposed treatment works is a part. The description shall cover all elements of the system, from the service area and collection sewers, through treatment, to the ultimate discharge of treated wastewaters and management and disposal of sludge. Planning area maps must include major components of existing and proposed treatment works. For individual systems, planning area maps must include those individual systems which are proposed for funding under § 35.918.

(c) Infiltration/inflow documentation in accordance with § 35.927 et seq.

(d) A cost-effectiveness analysis of alternatives for the treatment works and for the complete waste treatment system(s) of which the treatment works is a part. The selection of the system(s) and the choice of the treatment works for which construction drawings and specifications are to be prepared shall be based on the results

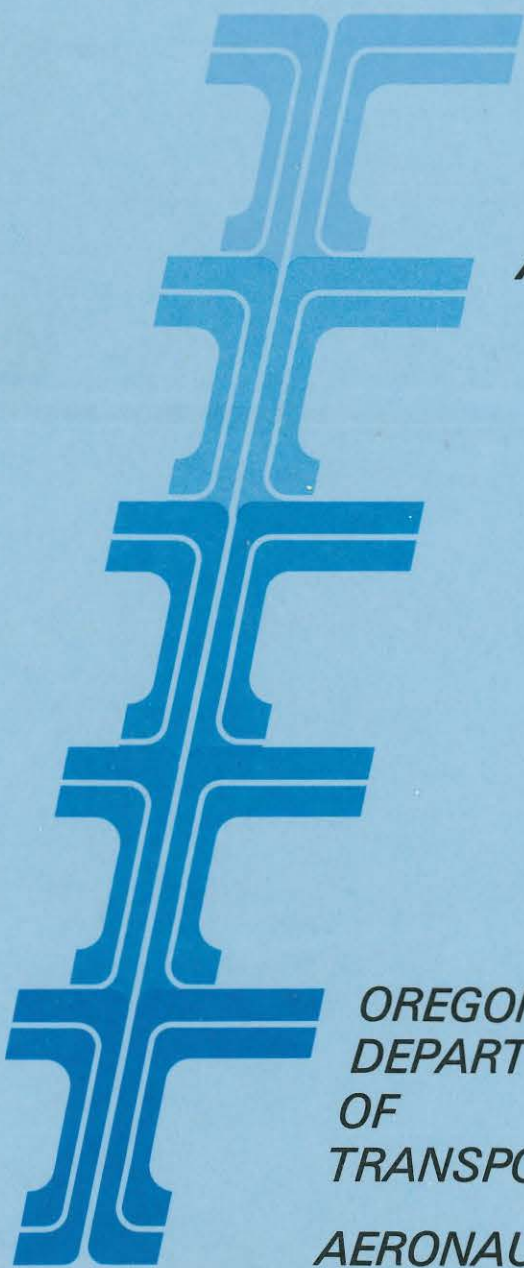
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OREGON AERONAUTICS DIVISION



AIRPORT COMPATIBILITY PLANNING

*RECOMMENDED GUIDELINES
AND PROCEDURES FOR AIR-
PORT LAND USE PLANNING
AND ZONING*



**OREGON
DEPARTMENT
OF
TRANSPORTATION

AERONAUTICS DIVISION**



State of Oregon Aeronautics Division

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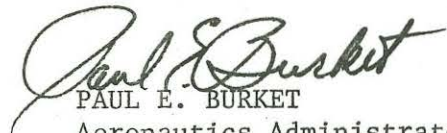
OREGON'S AIRPORT COMPATIBILITY PLANNING GUIDELINES

Recognizing that one of the major problems facing aviation today lies in attempting to assure the longevity and proper utilization of our airports, we are forwarding a complimentary copy of our newly published Airport Compatibility Planning Guidelines.

This document is intended to augment local efforts to resolve land use problems in the vicinity of airports throughout the state and we hope you will find it both informative and helpful in the development of comprehensive plans, zoning ordinances and procedures to protect and preserve airports as vital transportation facilities.

Additional copies are available at our printing cost of \$3.75 and can be ordered from the Oregon Aeronautics Division.

We would welcome your comments and suggestions for improving these guidelines.


PAUL E. BURKETT
Aeronautics Administrator

AIRPORT COMPATIBILITY PLANNING

**RECOMMENDED
GUIDELINES AND PROCEDURES
FOR
AIRPORT LAND USE
PLANNING AND ZONING**

***AN ELEMENT OF THE CONTINUOUS
AVIATION SYSTEM PLANNING PROGRAM***

**OREGON
DEPARTMENT OF TRANSPORTATION
AERONAUTICS DIVISION**

1978

FOREWORD

This manual is the result of a study designed to address the problems of land use conflicts around Oregon airports. It is offered as a basis for avoiding and reconciling differences resulting from the need for airports to function and the need of persons working, residing and involved in recreational pursuits in the vicinity of airports to be as free from adverse airport impacts as reasonably possible.

This manual is offered in the midst of a dynamically changing situation. Conflicts between airports and surrounding communities are increasing. New information, new techniques, and new resources for dealing with these conflicts are still developing. Oregon's Land Use Planning Program continues to grow and change. The project staff has attempted to compile the most current and best information available for your use.

We hope this document will be helpful to planners, decision makers and governmental jurisdictions in the development of comprehensive plans and zoning ordinances to protect and preserve airports as vital community assets.

Dick McRae
Study Coordinator

The following person should be contacted for assistance or advice in implementing the recommendations in the manual:

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GLOSSARY

CAB	Civil Aeronautics Board: The U. S. Governmental Authority which regulates economic aspects of air carrier operations and helps to develop international air transportation.
CERTIFICATED AIR CARRIER	The class of air carriers providing air transportation predominantly over fixed routes and holding CAB certification. These are usually the major U. S. Airlines.
FAA	Federal Aviation Administration.
GA	General Aviation: All aviation except CAB certificated commercial air carriers or military air transportation.
NON-PRECISION INSTRUMENT APPROACH	An approach system which provides aircraft with horizontal alignment to the runway.
OPERATION	An operation is either an aircraft take-off or a landing.
PRECISION INSTRUMENT APPROACH	An electronic aircraft approach system which establishes a course and a descent path. It provides aircraft with vertical and horizontal alignment to the runway for the final approach.
UTILITY RUNWAY	An airport's runway accommodating virtually all propeller aircraft of less than 12,500 pounds.
VFR	Visual Flight Rules.
VISUAL APPROACH	A visual approach uses visual reference to the ground for the final approach to the airport. While a visual approach can be made at any airport if weather conditions permit, some airports have no navigation aids and all aircraft approaching for a landing at these airports must operate under visual flight rules.

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**INTRODUCTION
AND
PURPOSE**

INTRODUCTION AND PURPOSE

Many Oregon airports, like others nationwide, are coming into conflict with the communities they serve. Airports were located, typically, on flat land on the outskirts of town. Airport operations over rural agricultural land posed no problem. Now, with rapid urban growth, those same flat lands provide opportunities for potentially profitable development. Airports are often engulfed by development and pressures mount for protection from airport impacts. Residents not only fear for their safety but resent aircraft noise over their property.

By the time this scenario is fully developed, satisfactory solutions are elusive. Among the options are airport closure or costly relocation, management strategies to reduce the impacts, or a continuing uneasy peace between the neighborhood and the airport. Litigation is common with largely unpredictable results.

Fortunately, most Oregon airports have not yet reached this point. However, new instances of incompatible development come to the attention of the Aeronautics Division with increasing frequency.

With the growing complexity of our cities, land use planning has become vitally important. If Oregon's 133 public-use airports are to continue to be community assets, effective land use planning is essential.

Land use guidelines for airports have been under development for more than a decade. This report brings them together in the Oregon context.

This study is offered as a first step to provide the necessary understanding and information in the developing area of land use compatibility in the airport environs. The study is provided as a working document for planners, decision makers, and other interested groups.

Objectives:

- Provide an understanding of the nature and extent of airport-related noise and potential safety problems.
- Identify compatible land uses in terms of noise and safety.
- Identify conflicting land uses.
- Identify ways to prevent or resolve conflicts.

- Identify

Necessary components of the land use element of an Airport Master Plan;

Steps to integrate appropriate portions of the Airport Master Plan in local comprehensive planning;

Zoning interpretation of the airport land use plan.

- Provide a method for monitoring land use changes.
- Reference model documents to accomplish required zoning.

SUMMARY OF RECOMMENDATIONS

A land use plan for the airport environs should be developed for every public use airport in the state. The plan should be an integral part of the airport master plan, layout plan, or approach and clear zone plan. This airport land use plan should be coordinated with the local comprehensive plan and both should be accomplished simultaneously whenever possible.

The airport land use plan should be developed with active representation and participation from all involved groups including local decision makers, planners, and other interests including citizen groups.

The airport land use plan should identify:

- (1) important airport noise and safety impacts and areas affected;
- (2) strategy to incorporate the airport land use plan into the local comprehensive plan;
- (3) appropriate zoning and other implementation actions required;
- (4) responsible jurisdictions for each action and a suggested timetable for implementation;
- (5) a monitoring mechanism to assure early recognition of potential land use conflicts.

BACKGROUND AND PROBLEMS

Airports and Urban Growth

Airports vary widely in size, in the kinds of airplanes that use them (fleet mix), in number of operations, and in distance from populated areas. The typical airport was originally constructed on the outskirts of the community on flat agricultural land. In that location it was accessible to the community, aircraft noise was not troublesome and the threat of a serious mishap during landing or take-off was minimized. The community, surrounded by a ring of residential development, slowly grew and so did the airport.

Residential development is now occurring near the airport in at least 40 Oregon communities. Housing is sometimes developed within 1,000 feet of the end of the runway, directly under the path of air operations. Correlations have been made between noise level and citizen complaints (discussed later). Though the correlations make community response more predictable, they provide only a rough guide for small airports where relatively small, quiet aircraft a few hundred feet overhead may seem dangerously close and loud.

In at least 16 other communities, the airport is located near the Central Business District (CBD). Though an airport near the CBD becomes an increasingly viable asset, economic pressures for expansion of commercial property make the land more valuable for other uses. The investment in airport improvements may be lost if the airport is moved or closed.

The Federal Aviation Administration (FAA) protects public investment in some airports. They provide federal funding only if the airport owner agrees to maintain the airport for 20 years (FAR Part 152). Because of these pressures, it is possible to have an airport which is dramatically under used because of its impact on the community while the owner (sponsor) may be committed to keeping it operational for up to 20 years.

The aviation community views the general land use problem around airports as "encroachment" since the airport was there first. Land use planners are more likely to consider the problem as one of "incompatible land use". Negatively affected residents frequently see the airport as a threat to the livability of their community and a nuisance.

Noise and safety conflicts are the two major compatibility problems affecting airports and surrounding land uses. Safety issues have long been recognized, and carefully defined standard "imaginary surfaces" are fixed above every airport. They identify the area above which fixed objects constitute obstructions to navigable airspace.

Noise problems have intensified in recent years because noise sensitive uses have moved nearer the airport and air traffic volumes have increased. Several recent federal publications discussed later are giving definition to the problem and identifying areas of responsibility for all involved groups.

Jurisdictional Issues

The effects of airports extend over a substantial area, not just a few acres in their immediate vicinity. The effects often extend across jurisdictional boundaries; the city, county, and sometimes others. Coordinated planning efforts become extremely difficult because of differences in philosophy and implementation mechanisms among involved jurisdictions.

The airport proprietor is often in a precarious position. He is aware of the needs and problems of the aviation community, but is often unable to communicate them adequately to local planning bodies and controlling jurisdictions. To the local decision maker, airport land use planning is yet another pressure added to a long-standing list.

The airport proprietor looks for solutions in areas where he has direct control. He may consider buying the land. He might need to purchase unreasonable amounts of highly valued urban land. Other options which may be open to the proprietor are: Increasing the glide/departure slope angle for landing or take-off; requiring a turn after take-off to avoid sensitive areas; restricting jets or night operation; displacing thresholds (removing a portion of the runway from use); or severely restricting airport operations by using only one end of the runway. These actions and others are being used at airports around the country. The value of these actions depends on local circumstances. It is often difficult to communicate these changes to pilots who are unfamiliar with the airport.

Trade-Offs Between Aircraft Noise and Community Impact

In the past, Oregon's smaller airports have been used heavily for recreational flying. Perhaps as a result some airports are zoned "public amusement". However, the cost of owning and operating an airplane is reducing the amount of recreational use, while business uses are increasing. It is estimated that 60 percent of the operations at Oregon general aviation (GA) airports are business related. The majority of the nation's top companies look for an adequate airport as a prerequisite for the location of new company facilities.

Businesses often operate larger aircraft including jets. The noise impact of jet aircraft is far greater than that of propeller planes. Many popular small jet aircraft equal the commercial air carriers in noise impact and, when they use

smaller airports close to the community, the annoyance is intensified. In some cases, increased noise is inevitably linked to a prosperous local economy. Adequate land use provisions are essential.

In agricultural areas, a similar problem is posed by aerial applicators or "crop dusters". These relatively noisy aircraft are particularly noticeable because they often operate in the quiet morning hours when winds are calm and the drift of herbicides and insecticides is minimized. These operations are generally responsible for higher quality crops, improved yields and a variety of other community economic benefits. Fire retardant bombers, helicopters, and military aircraft also contribute to the noise problem at some Oregon airports.

Community and Aviation Safety

Safety issues are more complex. A passenger on a commercial flight is more than ten times as safe as he is using the safest automobile transportation (driving on the interstate) in terms of fatality rates per passenger mile (ODOT, 1977). The fatality rate for the remaining general aviation (GA), on the other hand, is higher than the automobile (U.S. DOT, National Transportation Statistics, Annual). Business, instructional, and air taxi flights have the lowest fatality rates in general aviation. Agricultural aviation rates are twice as high and pleasure flying rates are four times greater (NTSB, GA, 1974, p. 16).

Most fatal accidents are related to adverse weather conditions at some distance from the airport. About 20 percent of all GA fatalities are the result of collision with a fixed object, such as wires, poles and trees. However, 30 percent of the fatal accidents occur during landing, take-off, or in the immediate vicinity of the airport (NTSB, Annual Review, GA, 1974, p. 29-30). Clearly, it is in the best interest of both air travelers and people on the ground to have the airspace clear of obstructions and a reasonable amount of clear land at either end of the runway.

The Taking Issue

Effective land use planning may place limitations on a landowner's use of his property. Although comprehensive planning and zoning are accepted governmental functions, there is a point at which the restrictions on the use of land become so burdensome that a court will conclude that the property has been "taken". The Constitution of Oregon prohibits the taking of private property for public use without compensation to the landowner (Oregon Constitution, Article I, Section 18). If a suitable range of options remain open to the landowner, community interests may be served without negatively affecting property values. In addition, the community is saved the cost of forced land acquisition at fair market value.

Severe height restrictions have often been found to be a taking (University of Michigan, Spring, 1977). Repeated low direct overflights have been ruled to be a taking of an avigation easement (Stoebuck, 1977). In one case, Thornberg vs. Port of Portland, jet noise was found to be a nuisance and a taking though direct overflights were not involved. Neither the Federal courts or courts of other states have gone that far.

Monitoring

With steadily increasing frequency, airport managers and the Aeronautics Division of the Department of Transportation are confronted with new incompatible uses near airports, including residential or other construction in areas which are detrimental both to the community and the airport. These occurrences come to the attention of airport management and the Aeronautics Division randomly and often too late for effective, responsible action. It is imperative that an understanding of the issues be broadened, that cooperation with local planning bodies be intensified, and that a mechanism be established by which land use patterns can be influenced before serious conflicts develop.

EXISTING FEDERAL AND STATE GUIDELINES

The Oregon context for land use planning in airport environs is shaped by developments in aviation and by Oregon's land use planning program.

Aviation Context

While the preferred methods of handling airport/community conflicts are far from detailed, the safety issue has been addressed at all levels of government and the growing noise problem has been the subject of many current efforts. The documents and actions outlined below provide the aviation context in which current airport land use planning efforts occur.

Safety - What the aviation community calls "Part 77" (Federal Aviation Regulations, 1975) is the long-established FAA document which defines the size and shape of "imaginary surfaces" associated with any airport. These imaginary surfaces, which are very real to most airport operators, define the area above which objects on the ground cannot protrude without constituting an obstruction--in effect, these surfaces are the earth's surface for aviation. Part 152 of the Federal Aviation Regulations defines clear zones: the areas at runway ends where the imaginary surface nears the ground. These areas should be kept clear of all objects, not only because the aircraft are near the ground, but because mishaps occur more frequently in this area and clear land can preclude a major disaster.

The FAA has made an effort to incorporate height zoning controls relative to these surfaces into local zoning ordinances in communities with airports. The FAA issued a model hazard zoning ordinance in 1972 which was adopted by many communities. The most recent version of this document is Zoning to Limit Heights of Objects Around Airports (FAA, 1977). The model ordinance in the new document is essentially the same as the previous one. In addition to the model ordinance, sample ordinances for two distinctly different types of airports are provided.

In Oregon, the Airport Zoning Act (ORS 492.510-492.990) provides long established but little used enabling legislation dealing exclusively with aviation hazards. The Act gives authority to every political subdivision having an airport hazard area to adopt, administer, and enforce airport zoning regulations for the area. It also discusses easements, air rights, the taking issue, enforcement, variances, and other related issues; however, the Act deals with only a portion of the current problem. In the case of Oregon's Zoning Act as well as hazard zoning acts of other states, there is some question as to their constitutionality. Airport hazard zoning has often been held to be unconstitutional (Anderson, 1968). Zoning is, nevertheless, the major tool available for the control of obstructions to airspace.

Many Oregon airport sponsors have completed (or are doing) Airport Master Plans containing a land use element. The land use element deals directly with noise and safety issues. This element of the master plan should tie directly to local comprehensive plans and in turn to zoning. The FAA insists on planning and local control of potential land use conflicts as a prerequisite for federal funding of airport improvement projects.

Noise - In November, 1976, two important federal documents emerged which began to direct efforts toward reducing airport noise problems.

One of these documents, the "Airport Noise Regulatory Process" (EPA, November 22, 1976) was proposed to the FAA by the Environmental Protection Agency. Directed initially at Air Carrier Airports, the proposals if adopted as regulations would require the airport proprietor to develop an Airport Noise Abatement Plan. The proprietor would be given heavy responsibility for bringing about changes in management, operations, site layout, and land use to reduce noise impacts. The EPA then proposes application of the Airport Noise Evaluation Process (ANEP) which is reprinted in Appendix "A".

The other is the Aviation Noise Abatement Policy issued by the FAA (November 18, 1976). The legal responsibilities of governmental levels have been vague. This document spells out the responsibilities of federal, state, and local government, and airport proprietors in reducing the noise problem, particularly at air carrier airports.

Federal Responsibility: The Federal Government sets noise emission standards for aircraft. Though only a fraction of the current fleet meets these standards, the FAA plans to require compliance and to require further noise reductions. The FAA is optimistic that a substantial reduction in aircraft noise can be achieved. Other federal actions outlined in the noise abatement policy include requiring that airport improvement projects receiving federal funds be consistent with local plans, providing funding for Airport Master Plans, authorizing the use of airport development funds on projects designed to achieve noise relief (land acquisition and noise suppression equipment), and the development of a project to encourage comprehensive noise abatement plans.

State and Local Responsibility: The FAA noise abatement policy indicates that "state and local governments are directly and uniquely responsible for ensuring that land use planning, zoning, and land development activities in areas surrounding airports is [are] compatible with present and projected aircraft noise exposure in the area." State and local governments are also encouraged to require appropriate sound insulation in new construction, to consider insulation of affected existing structures and "require that notice of airport noise exposure be given to the purchasers of real estate and prospective residents near airports."

Airport Proprietors: As stated in the policy document, the airport proprietor probably has the best understanding of the noise problem and related local conditions, needs, and user requirements. They must weigh the economic impacts of both action and inaction and be resourceful in encouraging proper zoning and land use controls.

In December, 1977, the FAA issued the most directly pertinent document to date, a draft of Airport-Land Use Compatibility Planning (FAA 1977, AC 150/5050-6). Its major limitation is its failure to deal with relevant issues other than noise, particularly safety. In dealing with noise, however, it is thorough, containing a wide range of noise abatement options and proposing a series of Land Use Guidance" (LUG) overlay zones in the airport vicinity corresponding to noise contours around the airport. Model zoning ordinances are not included.

Land Use Planning Context

In Oregon, the Land Conservation and Development Commission (LCDC) sets a standard for comprehensive planning requiring local plans to be consistent with LCDC land use goals. The goals have the force of law. Further, a series of judicial proceedings have established comprehensive plans as the controlling document over local zoning. LCDC's transportation goal, "to provide and encourage a safe, convenient and economic transportation system" also requires efforts to "minimize adverse social, economic and environmental impacts and costs," and conformance with local and regional comprehensive plans (LCDC, 1974, p. 7). The accompanying LCDC implementation guidelines suggest that land adjacent to airports be managed and controlled consistent with the comprehensive plan and that transportation plans provide "a detailed management program to assign respective implementation roles and responsibilities to those governmental bodies operating in the planning area and having interests in carrying out the goal."

The Aeronautics Division, in seeking compatibility between the land use element of airport master plans and the local comprehensive plans, recommends the concurrent development of both documents whenever possible.

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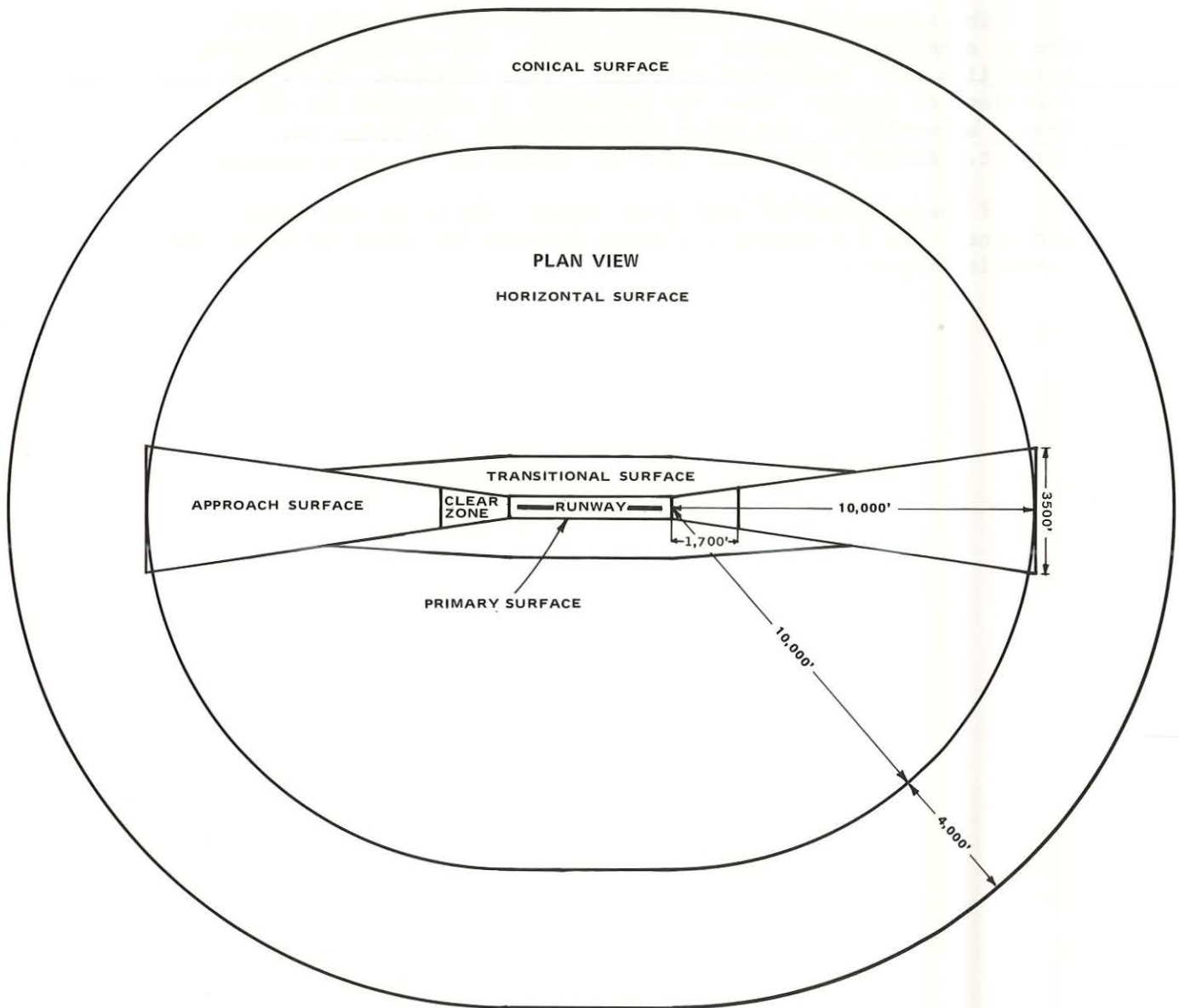
**DEFINING
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DEFINING CONFLICTS IN THE AIRPORT ENVIRONS

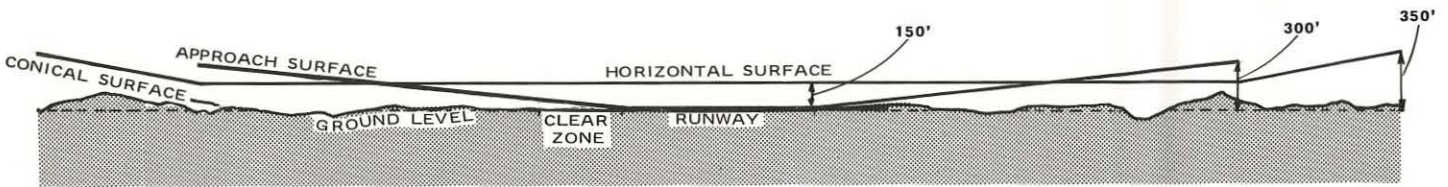
The airport is the center of considerable activity which can be annoying to persons exposed to it. The airport generates noise like many industrial settings. Like highways, it raises questions of safety. Some air pollution is generated by aircraft, automobiles, and other transportation accessing the airport. Airport vehicular traffic congestion can be a problem.

Of these potential conflicts, safety and noise are major concerns. The discussion following defines the areas affected and community impacts.

FIGURE 1



CROSS SECTION:



TYPICAL AIRPORT IMAGINARY SURFACES FOR CIVILIAN AIRPORTS

(NON-PRECISION INSTRUMENT APPROACH AIRPORT)

SAFETY HAZARDS

The "imaginary surfaces" above every airport define the boundary between space used by air traffic and the ground. They are shown diagrammatically in Figure 1. "Clear Zones" are also shown. The general definitions given below are detailed in FAR, Part 77 (Appendix "B") and Part 152. Dimensions of these surfaces vary depending on the sophistication of the approach system (precision, non-precision, visual) as discussed later.

Horizontal Surface - A horizontal plane 150 feet above the established airport elevation reaching from the transitional surface to the conical surface. It extends outward 5,000 feet from small runways and 10,000 feet from all others.

Conical Surface - A surface extending upward and outward from the edge of the horizontal surface at a slope of one foot for every 20 feet for 4,000 feet.

Primary Surface - A surface longitudinally centered on the runway centerline and extending 200 feet beyond the ends of prepared runway surfaces. The width of the primary surface is the same as the width of the beginning of the widest approach surface (250 to 1,000 feet).

Approach Surface - A surface centered on the runway centerline and extending outward and upward from each end of the primary surface. The approach surface begins at the end of the primary surface and widens with distance from the runway to 1,250 feet on the simplest runway approach and 16,000 feet for the most sophisticated. The slope and length of the approach also varies (slopes; 20 to 1--50 to 1: length; 5,000 feet to 50,000 feet).

Transitional Surface - Transitional surfaces extend upward and outward from the sides of the primary surface to the horizontal surface and from the sides of the approach surface to the horizontal surface.

Clear Zone - Clear zones are the ground areas under approaches which extend from the primary surface to a point where the approach surface is 50 feet above the runway end elevation (or terrain if the distance is shorter); these areas usually extend 1,000, 1,700, or 2,500 feet depending on the approach slope and vary in width at the widest end from 450 feet to 1,750 feet.

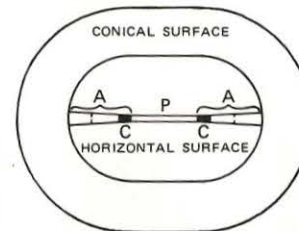
FIGURE 2

COMPARISON OF IMAGINARY SURFACE AREA RELATED TO RUNWAY INSTRUMENTATION

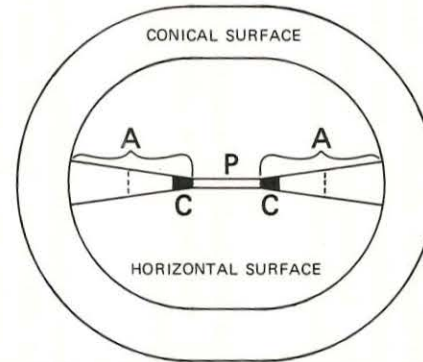
1977

	Approx. Area in Acres		
	1	2	3
A = Approach	200	900	19,500
C = Clear Zones	15	60	160
P = Primary Surface	20	60	150
T = Transitional Surface (not all shown)	300	500	17,000
Horizontal Surface	2,400	8,000	8,300
Conical Surface	4,700	7,800	8,100
Total	7,600	17,260	53,050

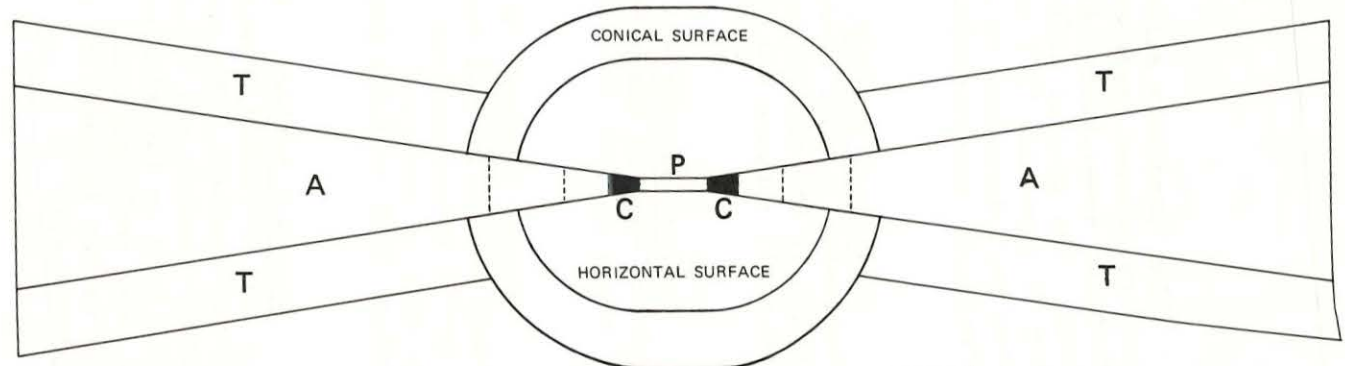
Total excludes overlapping surfaces, clear zones, assumes typical runway lengths, single runway.



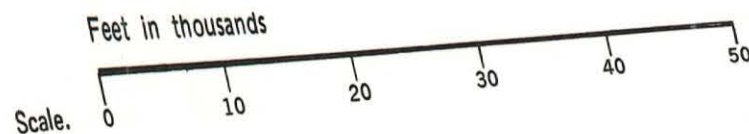
1 VISUAL APPROACH



2 NON-PRECISION INSTRUMENT APPROACH



3 PRECISION INSTRUMENT APPROACH



For some Oregon airports, the terrain penetrates the imaginary surfaces--Hood River, Pacific City, Roseburg, and Salem are examples. In these instances, an object up to 35 feet above the ground is generally not considered to be an obstruction. The 35-foot limit is commonly used in local zoning codes as a maximum height in residential areas. Objects penetrating the surface in any other location are considered obstructions and may be found to be hazards to aviation.

The dimensions of the imaginary surfaces are directly related to the sophistication of the approach system used or anticipated at the airport. The three basic conditions and the relative sizes of related imaginary surfaces and clear zones are illustrated in Figure 2. Though variations are common, the conditions are visual approach, non-precision instrument approach, and precision instrument approach.

Visual Approach Runway - A visual approach runway does not have existing or planned instrument approach aids. The runway can be used only when weather conditions permit good visibility, is used almost exclusively by light propeller aircraft, and has relatively small imaginary surfaces with approaches and horizontal surfaces extending 5,000 feet from the primary surface. Since many emergency strips and small airports are of this type, Oregon has more visual approach airports than any other type.

Non-Precision Instrument Runway - The non-precision instrument runway has one or more of several devices capable of providing horizontal guidance to aircraft to align them with the runway. It permits use of the airport under a greater variety of conditions than a visual approach runway and has approaches and horizontal surface extending 5,000 or 10,000 feet from the primary surface.

Precision Instrument Runway - Precision instrument runways have either an Instrument Landing System (ILS), Precision Approach Radar (PAR) or a Micro-wave Landing System (MLS) which provides both vertical and horizontal alignment of aircraft, allowing an approach to land without visual reference to the ground. Major airports with scheduled air carrier passenger traffic have existing or planned precision approaches. The imaginary surfaces are like those for non-precision except that the approach surface extends 50,000 feet from the primary surface to 1,200 feet above the runway elevation. Horizontal surfaces extend 10,000 feet. Terrain can often be a determining factor preventing an airport from having a full instrument approach when these requirements are considered.

The obvious benefit to the community in preserving imaginary surfaces is the reduced likelihood of aircraft accidents and

fatalities. The area of these surfaces conforms closely to flight paths and aircraft traffic patterns in the airport vicinity. In rare instances, instrument approach procedures bring aircraft in lower than the standardized approach surface. Clear zones protect a minimal area at runway ends in which height limitations are more restrictive. This obstruction-free area provides space wherein distressed aircraft can operate, potentially avoiding other parts of the community.

The approaches, as extensions of the runway, are the most critical portion of the imaginary surface. As such, they require careful consideration of the land uses beneath them to offer the aircraft and community maximum protection and safety. Most off-airport accidents near the airport happen in these areas. (President's Airport Commission, 1952, pp 49-51.)

NOISE

Noise Measures

Since measuring and defining "noise" is a relatively new phenomenon and numerous groups are interested in the subject, a proliferation of noise measures have developed including dB, dBA, dBD, PNL, EPNL, EPNdB, SEL, SENEL, CNR, NEF, CNEL, ASDS, Ldn, L10, and Leq. Only NEF and Ldn are currently considered to be of major importance to airport planning and are detailed below. Others are discussed in the technical references (see bibliography).

The diversity of measures exists in part because of the variety of parameters for noise. Certainly, the amount of sound at any given time and place can be measured in the most familiar terms, decibels (dB). But, only part of that sound is audible to humans, measured in audible decibels (dBA) or perceived noise level (PNL). The amount of background noise is an important factor--the same sound seems louder on a quiet night than during midday. The duration of the sound makes different sounds difficult to compare--how do four loud jets per day compare to the continuous roar in a food processing plant? It is equally difficult to compare those jets to relatively quiet propeller craft flying overhead every three minutes. Is the peak sound level reached most important, or the average sound level produced or some other measure of peaking characteristics?

The FAA developed the "Community Noise Response" (CNR) noise measure in 1952. Though it is still in use, it has largely been replaced by the Noise Exposure Forecast (NEF), a refinement of CNR. Not only does NEF account for differences in day and night sound impacts, but it also adjusts for noise qualities specific to particular aircraft types. NEF noise levels of primary concern range from NEF 20 to 40 with NEF 30 being a frequent demarcation between moderate and substantial noise impacts.

Many agencies dealing with noise measures are looking for a common noise measure which is adequate for a wide range of noise measurement purposes. The EPA is actively promoting day/night sound level (Ldn) as this all purpose measure. Having been appointed by the Congress to oversee the FAA's noise regulatory activity, the EPA has gone to considerable length to effect a conversion to Ldn for noise measurement around airports. Ldn, as the name implies, also accounts for differences in sound impact between day and night though Ldn appears to give somewhat less weight to nighttime noise events than does NEF. Noise levels of Ldn 55 to 75 are commonly considered for planning purposes with Ldn 65 being the division between moderate noise impact and substantial impacts.

TABLE 1

COMPARISON OF NEF AND LDN

NEF	LDN
NEF noise measures are statistically derived.	Ldn can be directly measured at the airport site.
Both can be computed manually (Bishop and Hays, 1975) or computer generated.	
Significant NEF contours are somewhat shorter than Ldn because NEF is based on effective perceived noise level (EPNL) which in turn is responsive to peak noise events rather than duration. Peak noise decreases more rapidly with distance.	Significant Ldn contours are somewhat longer than NEF. Ldn is based on sound equivalent level (SEL) which combines sound into a steady tone, somewhat reflecting peak noise but tending to average noise events.
Greater weight given to nighttime noise than Ldn.	Gives a 10 decibel weighting to nighttime noise events.
Tailored to the measurement of aircraft noise.	General measurement which can be compared with noise generated by non-aviation sources.
Most common current measure in Oregon airport planning.	Less familiar but becoming more pervasive--adopted by EPA, HUD, Aeronautics Divisions of several states.
Formulas for NEF and Ldn given in Appendix D.	

Rough equivalencies are available between noise measures: Ldn 65 = NEF 30 = CNR 100; and Ldn 55 = NEF 20 = CNR 85 (see scale in Appendix "C"). Noise contours are drawn based on specific conditions. Variations in the factors above and others can change the impacted area.

Table 1 on page 18 compares the major characteristics of NEF and Ldn and the differences between them. On the basis of this comparison (more detail given in Maryland 1975), LDN is the preferred noise measure and is recommended by the Oregon Aeronautics Division. Its major advantages are that Ldn can be directly measured on the site and that measurements in Ldn can be directly compared to noise from sources other than aircraft.

Noise Measurement Problems

Regardless of the noise measure used, huge differences in noise impacts are closely related to aircraft type (see Figure 3). Large numbers of small propeller craft have far less impact than a few jet flights--and a few business jets are no quieter than a few jet air carrier passenger planes. Though some heavy multi-engine propeller planes make as much noise as four single-engine aircraft, a multi-engine aircraft makes far less noise than a jet. Generally, air carrier airports have longer runways, more land, and are farther from densely populated areas than general aviation airports. A few business jets added to the operations at a small GA airport are likely to impact far more people than a comparable increase at an air carrier airport.

The major noise-maker is the turbojet engine. Turbofans, for which the technology has existed for some time, incorporate a large external fan in front of the engine, increasing fuel efficiency by burning exhaust gasses and reducing noise. Yet, only about 25 percent of the existing business jet fleet is turbofan. The FAA is planning to intensify its efforts to encourage a shift from turbojets to turbofans. They anticipate that by 1985 turbofans will comprise 65 percent of the business jet fleet resulting in nearly a 50 percent reduction in jet noise (assuming no increase in operations). This change is expected to come about largely through aircraft replacement rather than retrofit (Bishop and Hayes, 1975, pp. 58-61). In Oregon, business jet aircraft replacement occurs at a rate lower than the national average. It is estimated that we may experience only half the expected national reduction in turbojets by 1985, a noise reduction of 24 percent.

Aviation has continued to experience growth in operations and even with the energy shortage, operations are likely to continue to increase. For these reasons, a short-term forecast is recommended for noise contour generation. Most contours for 1985 in this report are based on operations forecasts from the Oregon Aviation System Plan.

COMPARATIVE NOISE IMPACT OF FLEET MIX

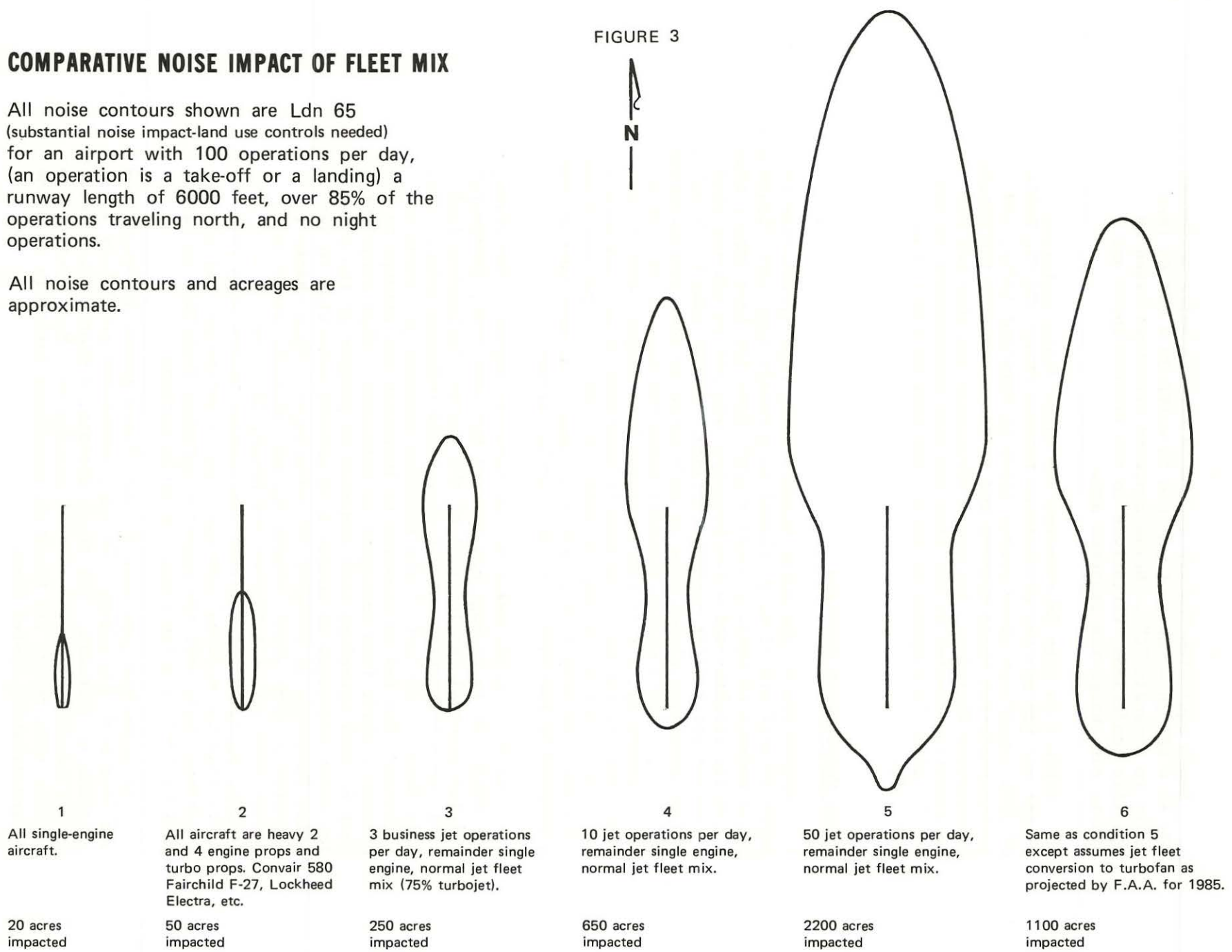
All noise contours shown are Ldn 65 (substantial noise impact-land use controls needed) for an airport with 100 operations per day, (an operation is a take-off or a landing) a runway length of 6000 feet, over 85% of the operations traveling north, and no night operations.

All noise contours and acreages are approximate.

FIGURE 3



20



Based on Bishop and Hays, 1975

Peak summer noise levels are indicators of the extent of the noise problem. Records from airports with control towers show that airport operations invariably peak during summer months. Smaller airports, with less sophisticated landing systems, are even more dependent on the weather. Summer weather increases airport activity, attracts people outdoors, and increases the likelihood that windows will be open. Consequently, aircraft noise impacts are far more severe in the summer. In preparing contours, it is recommended that severe summer conditions be used. For most examples in this report, peak summer operations were used. Peak operations were about double the operations for the same period had the annual average been used.

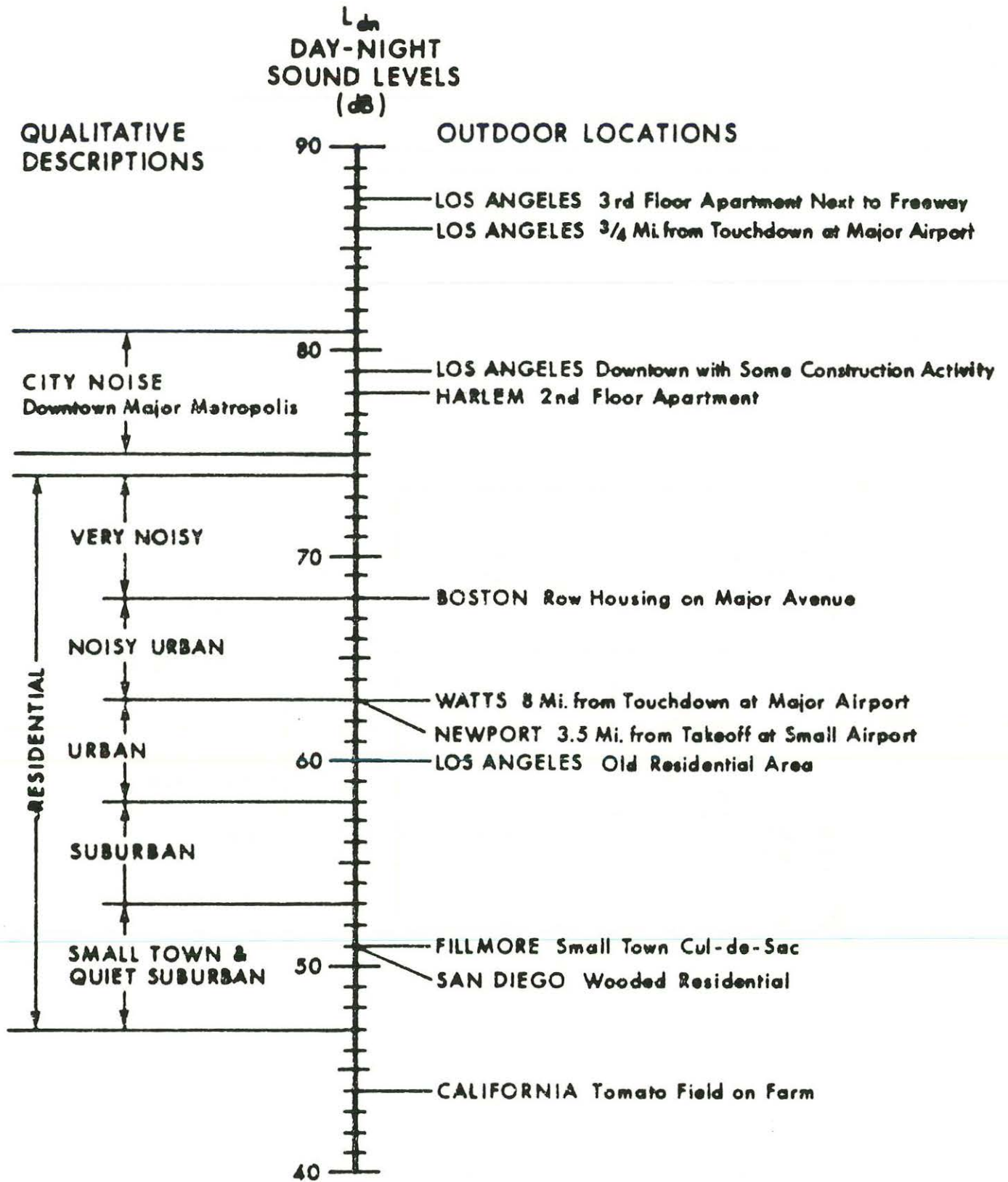
Noise contours can be generated manually using aircraft and airport data and the workbook, Developing Noise Exposure Contours for General Aviation Airports (Bishop and Hayes, 1975). The FAA now provides a service using their integrated noise model to generate noise contours.

Community Impacts

Aircraft noise can affect the livability of a residential community. Other noise sensitive uses can also be affected. The discussion to follow outlines some of these community impacts (for more detail, see: Maryland, 1975; HUD, 1972, Wyle Laboratories, 1971; Von Gierke, 1973).

Figure 4 presents a series of locations at which Ldn measures were taken. Airport noise greater than that of a suburban-residential neighborhood (Ldn 55) requires land use controls in some instances. Special land use considerations are usually recommended for areas with airport noise levels above Ldn 65, comparable to a noisy urban neighborhood.

FIGURE 4

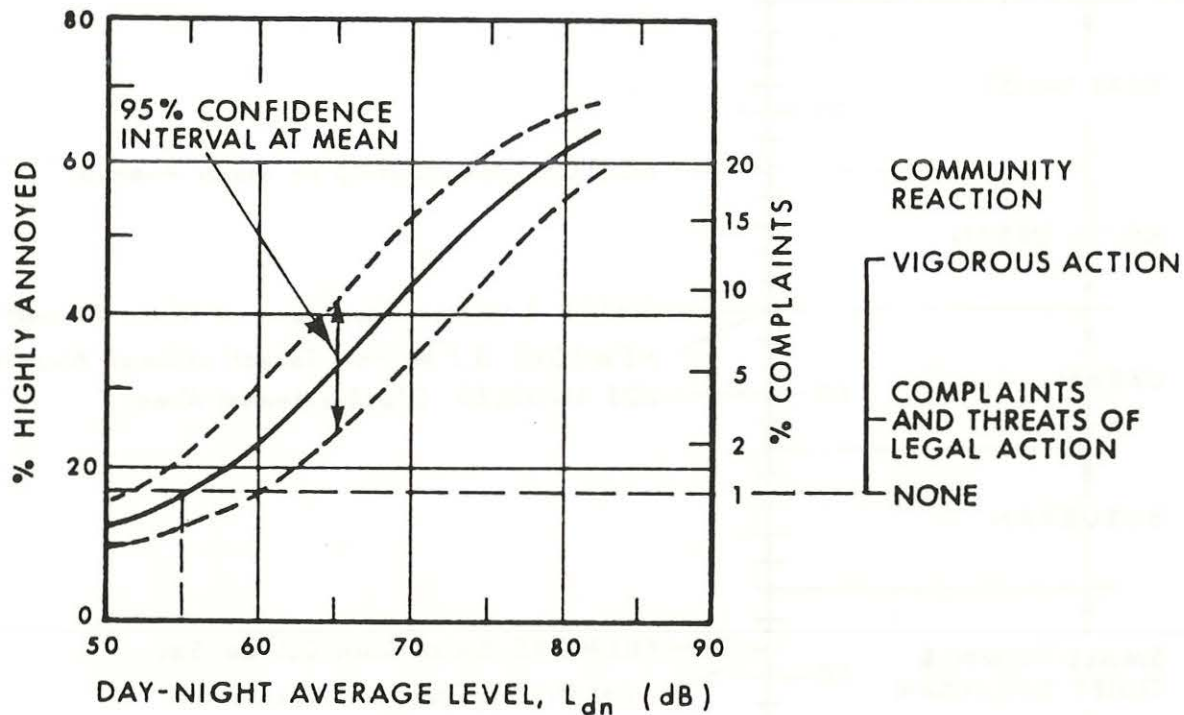


OUTDOOR DAY-NIGHT AVERAGE SOUND LEVEL IN dB (re 20 Micronewtons/ Sq. Meter) AT VARIOUS LOCATIONS

Source: Maryland Aviation Administration,
Adapted from VonGierke, 1973

Figure 5 provides an indicator of community response to noise stimuli. The figure has been related to 55 case studies in which community reaction was known (Maryland, 1975). Although in the average case no overt community response would occur at Ldn 55, about 18 percent of the population would be highly annoyed. Further, since noise sensitivity varies among communities and the graph depicts the "average case", complaints are possible at noise levels lower than Ldn 55. With many Oregon GA airports located in small urban communities which are not subject to ongoing industrial or heavy traffic noise, the relatively high noise sensitivity of these communities must be carefully considered.

FIGURE 5

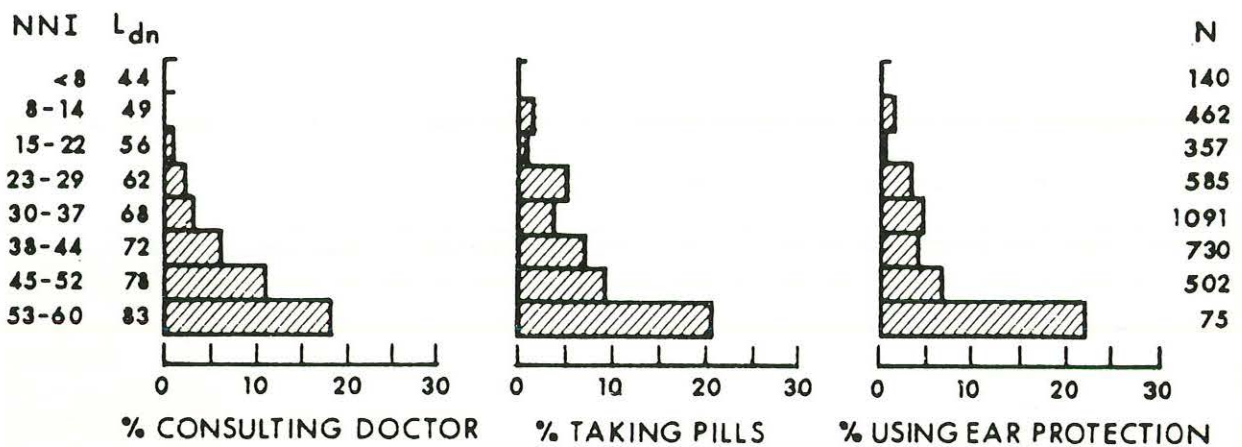


Intercomparison of Various Measures of Individual and Community Reactions as a Function of the Day-Night Average Noise Level, Ldn in Decibels.

Source: Maryland, 1975; adapted from Von Gierke, 1973.

The physiological and psychological effects of noise have been explored with major findings linking sustained high noise levels to hearing loss and lower levels of intermittent noise to speech interference (see EPA July 1973; EPA 1973). A variety of other relationships have been touched upon including the indirect consequences of sleep disturbance. The results of a Swiss study reported in Maryland (1975) are illustrated in Figure 6.

FIGURE 6



EFFECT OF AIRCRAFT NOISE ON USE OF EAR PROTECTION, CONSUMPTION OF SLEEPING PILLS AND CONSULTATION OF DOCTOR DUE TO SLEEP DISTURBANCE. 100% = NUMBER OF INTERVIEWED SUBJECTS IN EACH NOISE CATEGORY, DESIGNATED BY VALUE OF N.

The U. S. Department of Housing and Urban Development (HUD, 1972) has identified the degree to which varying sound levels impact human activity under average conditions. Figure 7 illustrates these relationships.

FIGURE 7

NOISE IMPACT ON HUMAN ACTIVITIES



Low Impact: Activity can be performed with little or no interruption from aircraft noise, though noise may be noticeable above background levels.

Moderate impact: Activity can be performed but with some interference from aircraft noise due to level or frequency of interruptions.

Serious impact: Activity can be performed but only with difficulty in the aircraft noise environment due to level or frequency of interruptions.

Critical impact: Activity cannot be performed acceptably in the aircraft noise environment.

HUMAN ACTIVITY	IMPACT ESTIMATE FOR LDN VALUE					
	45	55	65	75	85	95
Intensive Conversation			Diagonal	Stippled	Critical	Critical
Casual Conversation				Diagonal	Stippled	Critical
Telephone Use			Diagonal	Stippled	Critical	Critical
Sleeping		Diagonal	Diagonal	Stippled	Critical	Critical
Eating			Diagonal	Stippled	Critical	Critical
Reading				Diagonal	Stippled	Critical
Meditation				Diagonal	Stippled	Critical
Writing				Diagonal	Stippled	Critical
Studying				Diagonal	Stippled	Critical
Seminar, Group Discussion		Diagonal	Stippled	Critical	Critical	Critical
Classroom, Lecture		Diagonal	Stippled	Critical	Critical	Critical
Individual Creative Activity			Diagonal	Stippled	Critical	Critical

FIGURE 7 (Cont.)
NOISE IMPACT ON HUMAN ACTIVITIES

HUMAN ACTIVITY	IMPACT ESTIMATE FOR LDN VALUE					
	45	55	65	75	85	95
Live Theater			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Watching Films			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Watching Television			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Listening to Music			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Ceremony, Tradition			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Public Events, Assemblies			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Spectator Sports ¹			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Public Mass Recreation ¹			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Physical Recreation ¹			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Outdoor Activities ¹	Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Urban Outdoor Activities ¹			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Extended Child Care			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Driving ¹					Diagonal lines	Diagonal lines
Shopping				Diagonal lines	Diagonal lines	Diagonal lines
Technical Manual Work			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Skilled Manual Work			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines
Manual Work				Diagonal lines	Diagonal lines	Diagonal lines
Equipment Operation ²				Diagonal lines	Diagonal lines	Diagonal lines
Repetitive Work				Diagonal lines	Diagonal lines	Diagonal lines
Noise-Sensitive Equipment ²			Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines

¹No allowance for structural insulation.

²Depends on characteristics of particular equipment.

Source: HUD, 1972, pp 61, 62.

HUD in taking the data one step further has developed the table shown in Figure 8. The codes "A", "B" and "C" represent a continuum from satisfactory conditions to conditions in which no new construction should be undertaken. "D" and "F" make varying requirements for noise analysis and noise reducing design features though these categories provide considerable latitude. New construction in category "E" should be airport-related. The roman numerals indicate increasing levels of community response to noise.

FIGURE 8

**NOISE COMPATIBILITY INTERPRETATIONS FOR USE WITH
LAND USE COMPATIBILITY CHART**

General Land Use Recommendations*

- A. Satisfactory, with no special noise insulation requirements for new construction.
- B. New construction or development should generally be avoided except as possible infill of already developed areas. In such cases, a detailed analysis of noise reduction requirements should be made, and needed noise insulation features should be included in the building design.
- C. New construction or development should not be undertaken.
- D. New construction or development should not be undertaken unless a detailed analysis of noise reduction requirements is made and needed noise insulation features included in the design.
- E. New construction or development should not be undertaken unless directly related to airport-related activities or services. Conventional construction will generally be inadequate and special noise insulation features must be included. A detailed analysis of noise reduction requirements should be made and needed noise insulation features included in the construction or development.
- F. A detailed analysis of the noise environment, considering noise from all urban and transportation sources should be made and needed noise insulation features and/or special requirements for the sound reinforcement systems should be included in the basic design.
- G. New development should generally be avoided except as possible expansion of already developed areas.

Community Response Predictions**

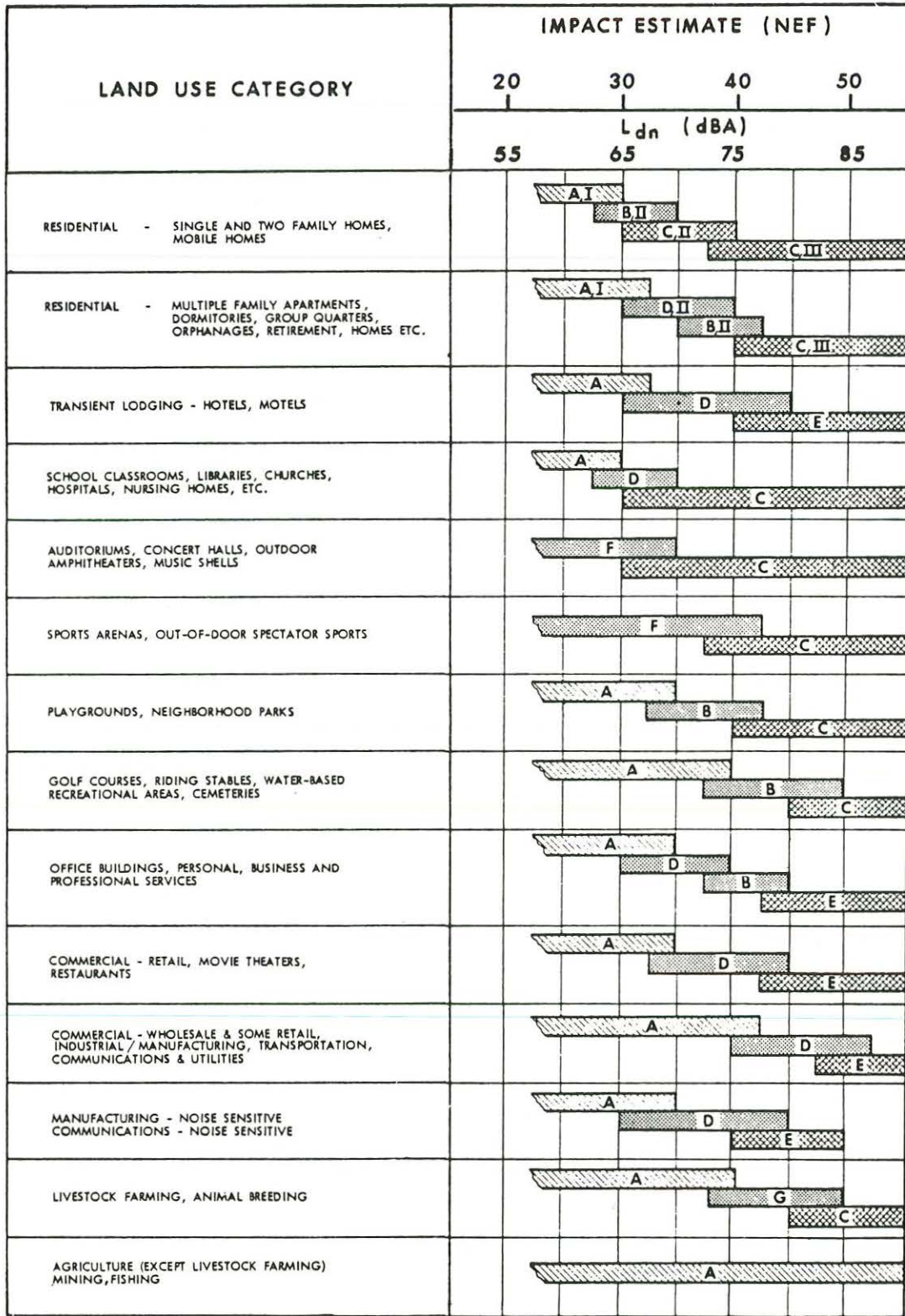
- I. Some noise complaints may occur, and noise may, occasionally, interfere with some activities.
- II. In developed areas, individuals may complain, perhaps vigorously, and group action is possible.
- III. In developed areas, repeated vigorous complaints and concerted group action might be expected.

* Land use recommendations are based upon experience and judgment factors without regard to specific variations in construction (such as air conditioning and building insulation) or in other physical conditions (such as terrain and the atmosphere). These features and other involving social, economic, and political conditions must be considered in recommending individual use and density construction combinations in specific locations.

** Community response predictions are generalizations based upon experience resulting from the evolutionary development of various national and international noise exposure units, in particular, the Composite Noise Rating (CNR). For specific locations, considerations must also be given to the background noise levels and the social, economic, and political conditions that exist.

FIGURE 8 (Cont.)

LAND-USE COMPATIBILITY CHART



In terms of noise, these interpretations point out the strong compatibility between airports and agricultural uses. Also indicated is the compatibility of industrial, commercial, and office uses although these relationships are more complex and, with increasing noise exposure, should be airport-related. Safety considerations, however, reduce the appropriateness of commercial activity which attracts large groups of people. Theaters and sports arenas are considered incompatible at high noise levels while compatibility with moderate exposure is dependent on the needs and character of the specific planned facility--a thorough noise analysis is recommended. Schools, libraries, hospitals, and similar institutions are incompatible with high noise levels while moderate exposure is somewhat less critical. Transient lodging is considered less noise sensitive and with adequate noise insulation and a direct relationship to the airport can tolerate extreme noise impacts.

Residential development, including single-family, multi-family and associated parks are shown as compatible with moderate exposure though only multi-family is considered compatible with somewhat higher exposures. The acceptability of multi-family housing with higher noise levels is sometimes interpreted to mean that occupants are less noise sensitive (due to stage in life cycle, mobility, etc.). The minimal truth of this assumption makes it hazardous. Multi-family units may be considered relatively noise compatible because the intrinsic nature of the structure provides additional soundproofing (common walls, multi-story, etc.). As indicated here, noise complaints and community action are nearly as likely from multi-family units as from single-family housing. As the chart indicates, some complaints (and corresponding annoyance) can be expected from residential units in the lowest noise impact areas shown. The chart unfortunately does not suggest a level of full compatibility or absence of noise impact from the airport on residential development.

The Environmental Protection Agency (EPA, 1974) has developed optimal guidelines for land use in noise impacted areas. These guidelines influenced the FAA Noise Abatement Policy recommendations which underlie the recommendations contained in this study.

AIRPORT GROUPS

Most of Oregon's publicly-owned airports were grouped by the criteria listed below and a sample airport was chosen from each group. The noise contours and imaginary surfaces already discussed have been applied to the sample airports to give a better understanding of the area involved.

The airports were grouped using the following criteria:

1. Fleet Mix: Propeller aircraft, twins, heavy aircraft, jets.
2. Number of Operations: general continuum from low to high.
3. Type of Approach: visual (VFR), non-precision, precision.
4. Nearness to Population: Some airports were eliminated from consideration because they were too far from developed areas to present a foreseeable problem.

With these four criteria and limited data in some instances, these groupings are only approximate.*

Sample Airports

Sample airports were selected from these groups, not only because they were reasonably representative of other airports within the group, but because they have existing or serious potential land use conflicts. (Names of sample airports are capitalized in the following lists.)

*The groupings bear a general relationship to airport classification as commonly defined by the FAA and the aviation community:

Landing strips:	Facilities smaller than basic utility.
Basic utility:	Airports accommodating 95 percent of propeller aircraft under 12,500 pounds.
General utility:	Accommodates all propeller craft weighing less than 12,500 pounds with many aircraft weighing over 8,000 pounds.
Basic transport:	Accommodate turbine powered aircraft weighing less than 60,000 pounds and most general aviation aircraft.
General transport:	Accommodate transport aircraft weighing up to 175,000 pounds.
Air carrier:	Used by Civil Aeronautics Board certified air carriers.

LIST OF AIRPORT GROUPS

Landing strips with too few operations and too far from developed areas to require consideration:

Alkali Lake	McKenzie Bridge
Cape Blanco	Owyhee Reservoir
Christmas Valley	Pinehurst
Hampton	Rome
Lake Billy Chinook	Santiam Junction

- A. General Aviation Airports with low numbers of operations, mostly single-engine aircraft, VFR only:

Arlington	Nehalem Bay
Bandon	Norway
Beaver Marsh	Oakridge
Cascade Locks	PACIFIC CITY
Chiloquin	Paisley
Condon	Powers
Country Squire (Sandy)	Prospect
Crescent Lake	Seaside
Joseph	Sisters
Lakeside	Sutherlin
Malin	Toledo
McDermitt	Vernonia
Miller (Vale)	Wakonda Beach
Monument	Wasco

- B. General Aviation Airports with moderate numbers of operations, including light twins but few or no jets, mostly VFR:

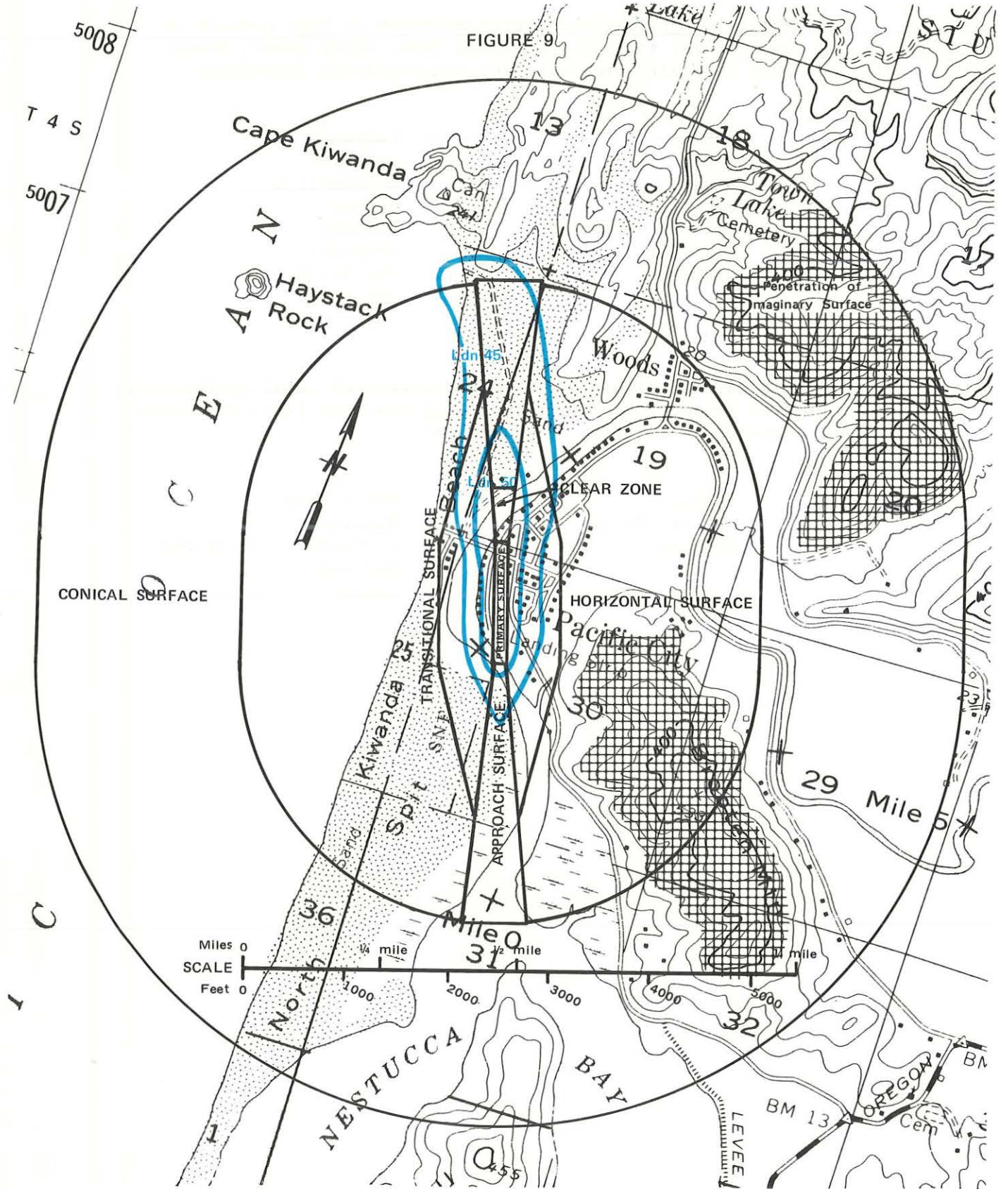
Albany	Langmack (Sweet Home)
Ashland	Lebanon
Brookings	Lenhardt (Hubbard)
Cottage Grove	Lexington
Creswell	Madras
Enterprise	Mulino
Florence	Oregon City
Gold Beach	Prineville
Hermiston	Richs (Sandy)
Hood River	Scappoose
Illinois Valley (Cave Junction)	Siletz Bay
INDEPENDENCE	Sportsman's (Newberg)
Joe Cards (Dallas)	Sun River
John Day	Tillamook
Josephine County (Grants Pass)	Tri-City (Riddle)

C. Mostly General Aviation with moderate to high numbers of operations; including business jets, heavy twins, transport aircraft, precision and non-precision approaches:

AURORA	LaGrande
Baker	Lakeview
Bend	McMinnville
Burns	Newport
Clatsop (Astoria)	Ontario
Corvallis	Roseburg
Hillsboro	The Dalles
	Troutdale

D. Air carrier airports with high numbers of total operations, full range of aircraft, including business jets, precision approaches existing or programmed:

Eugene	North Bend
Klamath Falls	Pendleton
Medford	Portland International
	Redmond
	SALEM



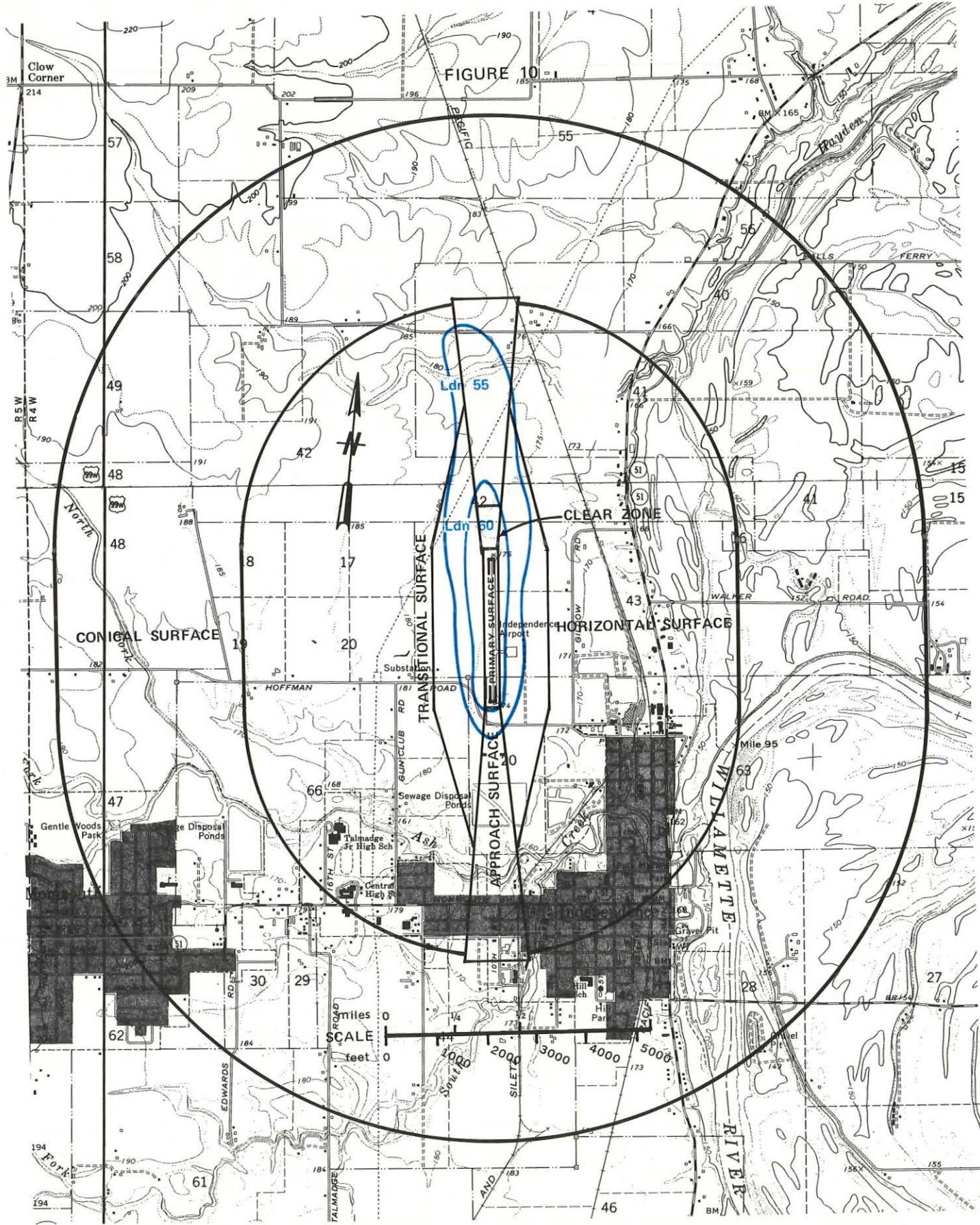
NOISE CONTOURS AND IMAGINARY SURFACES AT PACIFIC CITY AIRPORT

GROUP A

PACIFIC CITY AIRPORT

Pacific City, typical of this group, has only visual approaches and consequently has smaller imaginary surfaces (see Figure 9). The horizontal surface extends only 5,000 feet with the conical surface extending an additional 4,000 feet.

The summer noise contours shown here are based on 19 propeller operations a day. The Ldn 45 and Ldn 50 contours shown are of minimal significance by accepted standards. The Ldn 55 contour, if it exists, is too small to show.



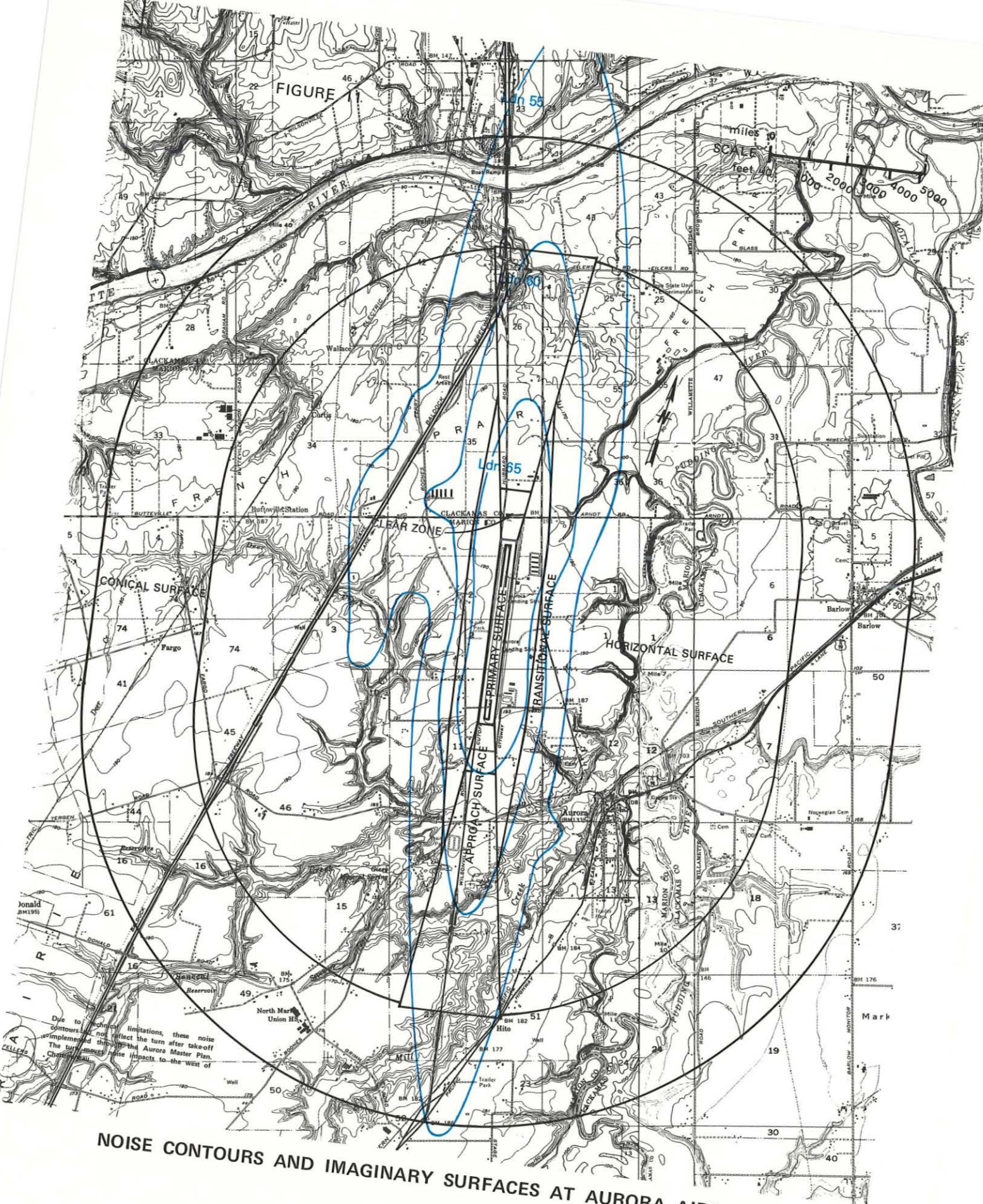
NOISE CONTOURS AND IMAGINARY SURFACES AT INDEPENDENCE AIRPORT

GROUP B

INDEPENDENCE AIRPORT

Independence Airport shown in Figure 10 is much like many Oregon general aviation airports. They are predominantly utility airports with visual flight rules (and without instrument approaches) and corresponding limited imaginary surfaces. They generally have one runway with a substantial number of operations, but very little twin propeller or jet traffic.

Noise contours for Independence were calculated for 1985 summer peak days reaching 190 operations with no jet traffic. Two percent were considered nighttime operations (10 PM - 7 AM) and one percent light twin-engine aircraft. As with many Oregon airports, flights tend to take off and land toward the north, particularly during the summer.



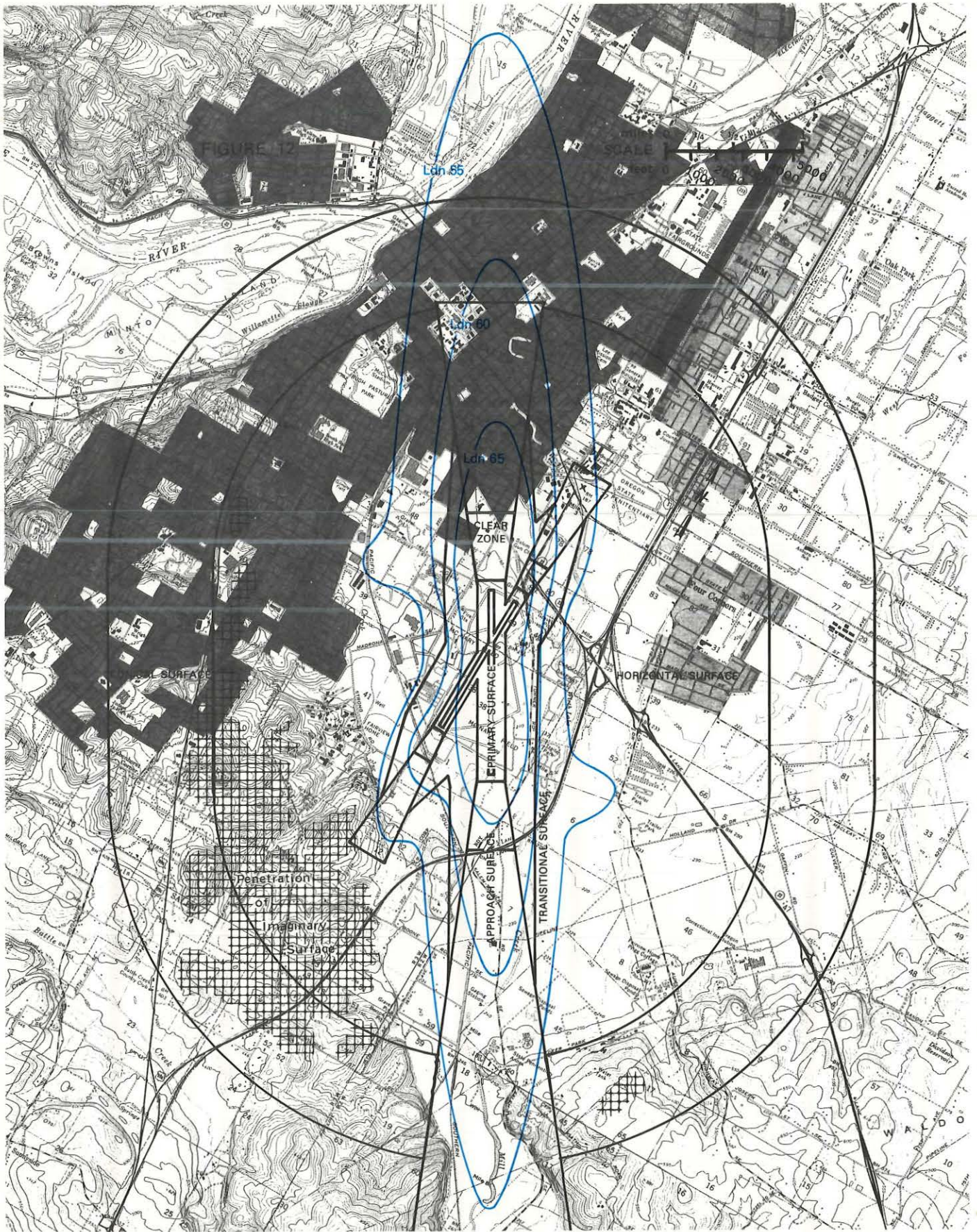
NOISE CONTOURS AND IMAGINARY SURFACES AT AURORA AIRPORT

GROUP C

AURORA AIRPORT

This diverse group of Oregon general aviation airports is heavily used like Group B. The fleet mix here, however, includes a wide variety of aircraft including heavy twins, transport aircraft, and business jets. The facilities are generally more extensive including longer or multiple runways and non-precision or precision approaches. Horizontal surfaces extend 10,000 feet from the primary surface with an additional 4,000 feet of conical surface. The precision approach surfaces (not shown) extend 50,000 feet. Aurora's non-precision approach surface extends 10,000 feet (Figure 11).

The noise contours for Aurora are based on 760 peak day operations--nearly one take-off or landing every minute during the day with 40 night operations. Included are about seven jet operations and 45 twin-engine operations though none of these are heavy twins (over 12,500 pounds). The business jet fleet using Aurora is overwhelmingly turbojet.



NOISE CONTOURS AND IMAGINARY SURFACES AT MCNARY FIELD

GROUP D

SALEM - McNARY FIELD

McNary Field (Figure 12) in Salem is one of the eight major Oregon air carrier airports. These airports have high numbers of operations, including general aviation, a wide range of aircraft types, 50,000 foot precision approach surfaces, and multiple runways.

Unlike the other examples, data for Salem is taken from the Land Use Plan for McNary Airport and Environs. Noise contours are based on 390 peak day operations. Though the number of operations is greater at Aurora, Salem's fleet mix is very different. Included are about 14 jet operations (including four air carrier), and 75 twin or helicopter operations. Two percent of the propeller operations occur at night. The jet fleet composition is near the national average of 75 percent turbojet.

3

**LAND
USE
GUIDELINES**

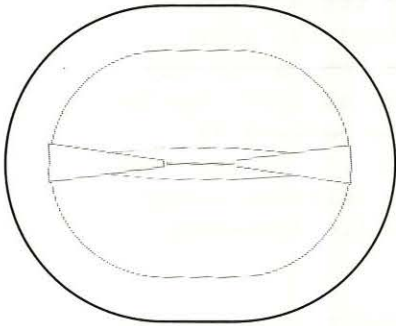
LAND USE GUIDELINES

The major components of imaginary surfaces and noise contours must be dealt with individually. Land use implications depend on the particular noise or safety issue involved. While some components are applicable to all airports, some are important only in specific instances. The components may be combined for a particular airport to form an airport overlay zone which modifies other land use designations beneath it. An Airport Development Zone is also introduced. It is not part of the overlay zone, but instead, replaces the existing designation for the immediate airport environs ("public amusement" or other designation).

Figure 13 illustrates the Airport Development Zone and the components of the Airport Overlay Zone. Table 2 at the end of this chapter identifies "conditional" and "incompatible" uses for each zone component.

FIGURE 13

**COMPONENTS OF AIRPORT OVERLAY ZONE
AND AIRPORT DEVELOPMENT ZONE**



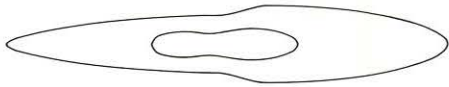
OBSTRUCTION ZONE



APPROACH SAFETY ZONE



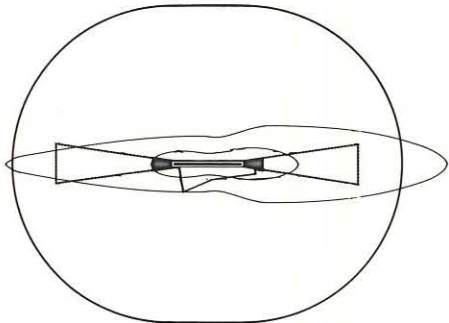
CLEAR ZONE



**SUBSTANTIAL AND MODERATE IMPACT
NOISE CORRIDORS**



AIRPORT DEVELOPMENT ZONE



**COMPOSITE AIRPORT OVERLAY ZONE
AND AIRPORT DEVELOPMENT ZONE**

OBSTRUCTION ZONE

Land Use Compatibility - while virtually no land use is categorically prohibited in the airport obstruction area, nearly all structures which penetrate the imaginary surfaces are prohibited. Typical concerns are radio or television transmission towers and industrial smokestacks. Office and apartment towers, amusement devices and trees are generally of little concern unless they are located in the approach, transitional surfaces, or areas where the terrain rises near or through the surfaces. Structures under 35 feet tall are usually considered to be exceptions in areas where the terrain penetrates the surfaces.

Potential hazards to air operations other than obstacles (glare, smoke, etc.) are a major concern in the approach safety zone and should be dealt with in that zone. They should receive general consideration in the obstruction zone since radio interference, for example, can have an effect over long distances.

When to Use - The obstruction zone should be adopted for virtually every airport. It represents a first step toward land use compatibility.

APPROACH SAFETY ZONE

Land Use Compatibility - To assure public safety, uses in the approach safety zone should not attract large groups of people. Most residential uses should be prohibited if possible. Where residential development is inevitable or already in place low density is preferred with retirement homes or other residential institutions being excluded. While manufacturing is generally quite compatible, such uses should be considered "conditional" and watched for potential operations hazards; electrical interference, high intensity lighting, bird attractions, smoke, glare, or other interferences. Transportation is generally compatible as are communications (except radio and television transmission), and utilities (except petroleum storage, electric power plants and lines, and solid waste disposal). Commercial uses are generally compatible though retail establishments such as restaurants or concentrated retail areas which attract people should be avoided. Offices and services are compatible except hospitals and rest homes. Most recreational uses are conditionally acceptable excluding public assembly and other high intensity uses. Resource production, including agriculture and undeveloped land is generally compatible (aggregate extraction if it will result in ponding and other uses posing a bird strike hazard should be excluded).

When to Use - The variability of local conditions requires flexibility in applying this zone in a given area. The importance of identifying a separate approach safety zone depends on the amount of jet traffic, the likelihood of development in the area, characteristics of the terrain, and other factors.

The importance of controlling the approach area (other than simply in terms of obstruction) is closely related to the types of aircraft using the airport. Light aircraft require less maneuvering space than larger, heavier planes. The clear zone may provide adequate safety precautions for an airport used exclusively by small aircraft. At the other extreme, jet aircraft could not maneuver under adverse conditions in the tight space provided by the clear zone. Land use control in the approach is far more important.

Another consideration is airport use for emergency purposes. If the airport is located in an area where weather conditions fluctuate rapidly, there is rough terrain and/or the airport is on a route often used under threatening weather conditions, greater consideration should be given to protection of the approach area.

At small airports where noise may not be a serious factor, it may be desirable to control residential densities in all or part of the approach. At airports with more operations, the noise zone will usually assure lower concentrations of people in the approach area. It may be desirable to restrict only the 10,000 feet nearest the airport for a 50,000 foot precision instrument approach.

CLEAR ZONES

Land Use Compatibility - Clear zones should be kept essentially clear. Undeveloped land is the best use. Agriculture which does not attract birds is compatible unless it includes structures. Park and recreational uses are satisfactory if they don't attract large groups of people. Transportation facilities are not a serious problem as long as height restrictions are heeded. Power lines are a serious danger. Most other uses should be excluded as shown in Figure 10. Wherever possible, the clear zone should be free of any construction or obstacle and should be minimally used by people.

When to Use - All airports should have protected clear zones.

MODERATE NOISE IMPACT (Ldn 55-65)

Land Use Compatibility - New residential uses should be avoided and low residential densities should be maintained in moderate impact areas. Noise sensitive facilities should have sound insulation. Most uses are compatible or conditionally compatible. Schools, hospitals, nursing homes, theaters, auditoriums and even residential development should have noise insulation. Noise insulation is not as effective for residential use, however, since the outdoor space is part of the living area. Orientation of housing, screening with fences or berms, or other treatment can be used to reduce awareness of the airport.

When to Use - Generally, the Ldn 55-65 area should receive special attention outside urban areas if the Ldn 55 boundary extends off airport property. Within urban areas, other community noise masks airport noise, community sensitivity is generally lower, and special control of this moderate impact area is usually less important. Outside urban areas, background noise is usually lower and airport noise may be perceived as a problem. If community sensitivity to noise is unusually high, it may be desirable to develop a noise contour of less than Ldn 55 as the outer boundary of the noise impacted area.

AIRPORT DEVELOPMENT ZONE

The airport development zone is different from the other zones presented because it should not be part of the overlay zone. It is a zone designation which replaces "commercial," "industrial," "public amusement," or other designations currently given to the airport site and immediate vicinity. The land in the immediate vicinity of the airport may be severely impacted by noise, safety hazards, pollution (not only from aircraft but from autos accessing the facility), congestion, etc. The combination of these factors and others may produce an environment that, rather than some romantic ideal of flight, resembles an industrial setting. An airport requires an area for growth of the facility and many types of industry can receive considerable travel and transportation advantage if they are located in close proximity to the airport. A unit of land should be set aside and designated as an "airport development zone" to serve these purposes. In addition, the development zone can include clear zones or other areas needing maximum protection from all development because of the airport. Included in this area should be:

Airport site and property - Assuming property holdings are reasonably confined to the airport area;

Airport expansion areas - Space needed for reasonably anticipated facility growth and, where surrounding land use is compatible with industrial activity, space for airport-related industry.

Clear Zones - To be kept undeveloped and to offer additional protection.

If the airport development zone grows over time, it should expand in areas impacted by the airport rather than expanding perpendicular to the runway along access routes or other features. It should serve as an airport buffer and include areas receiving severe noise impacts.

Residential uses, other than transient lodging, and recreational uses inducing high concentrations of people should be excluded from this zone. Most other uses are acceptable or to be encouraged providing they do not violate any other zones, are airport-related, and include appropriate sound reduction measures.

SUBSTANTIAL NOISE IMPACT (Ldn 65+)

Land Use Compatibility - Noise reduction is necessary for any residential, retail, office or service use developed in this substantially impacted area. While motels or other transient lodging with appropriate insulation can be included in this zone, single and multi-family housing and mobile home parks should be excluded. Schools, libraries, churches, hospitals, nursing homes and other noise sensitive uses should also be excluded. Though many recreational uses are compatible, noise sensitivity should be examined and appropriate measures taken. Non-noise sensitive industry, manufacturing, wholesaling and warehousing, retailing, agriculture, forestry, fishing, mining and open space are compatible.

Areas with noise exposure of Ldn 75 or greater should be acquired by the airport owner and incorporated in the airport development zone.

When to Use - For small airports used only by single engine propeller aircraft, noise impacts greater than Ldn 65 are probably confined to the airport property. In these cases, this noise corridor zone is probably not necessary or desirable.

In cases where noise impacts above Ldn 65 extend off airport property, a noise zone should be implemented. It should preclude residential development, if possible. It should also preclude other noise sensitive uses. In cases where these uses cannot be precluded, they should be held at a minimal density and acoustical treatment should be considered.

LAND USE MATRIX

Table 2 suggests compatible (permitted), incompatible (prohibited), and conditional uses for each of the six zone components. The major conditions are also listed on the table. The table can be used both for general land use categories in comprehensive planning and for more detailed work in the refinement of corresponding zoning ordinances.

Since local conditions may vary and greater or lesser specificity may be required, this table provides only a general guideline and may require modification for use in a particular community.

The following information is being provided to you for your information and is not intended to constitute an offer of insurance. The information is provided for your information only and is not intended to constitute an offer of insurance. The information is provided for your information only and is not intended to constitute an offer of insurance.

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TABLE 2
LAND USE MATRIX

LAND USE		SAFETY		NOISE CORRIDOR		MULTIPLE IMPACT AIRPORT AREA		KEY						
SLUCM No.	NAME	OBSTRUCTION HAZARDS	APPROACH SAFETY	MODERATE	SUBSTANTIAL	DEVELOPMENT ZONE	CLEAR ZONES							
10	Residential	-	-	-	-	-	-	<p>MAJOR CONDITIONAL USE RESTRICTIONS</p> <p>SAFETY</p> <p>OBSTRUCTION HAZARDS No height obstructions. No hazards to air operations. No structures over 35 ft. where natural terrain penetrates imaginary surface.</p> <p>APPROACH SAFETY No interference with normal airport operations. (electrical interference, 1., high intensity lighting, 2., bird attractions, 3., & smoke, dust, 4.)</p> <p>No large concentrations of people.</p> <p>NOISE CORRIDOR</p> <p>MODERATE Analyze noise reduction requirements and take appropriate sound insulation measures.</p> <p>Low residential densities where feasible-requires analysis of local conditions.</p> <p>SUBSTANTIAL Analyze noise reduction requirements and take appropriate sound insulation measures.</p>						
11	Household units.	NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES							
1111	Single units - detached.													
1112	Single units - semiattached.													
1113	Single units - attached row.													
1121	Two units - side by side.													
1122	Two units - one above the other.													
1131	Apartments - walk up.													
1132	Apartments - elevator.													
12	Group quarters													
124	Retirement homes													
13	Residential hotel													
14	Mobile home parks or courts													
15	Transient lodgings													
19	Other residential													
20	Manufacturing								-	-	-	-	-	-
21	Food and kindred products								NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES	NO PENETRATION OF IMAGINARY SURFACES
22	Textile mill products													
23	Apparel and other finished products made from fabrics, leather, and similar material.													
24	Lumber and wood products (except furniture).													
25	Furniture and fixtures													
26	Paper and allied products.													
27	Printing, publishing, and allied industries.													
28	Chemicals and allied products.													
29	Petroleum refining and related industries.													

TABLE 2 (Cont.)

Continued

31	Rubber and miscellaneous plastic products.						
32	Stone, clay, and glass products.						
33	Primary metal industries.						
34	Fabricated metal products.						
35	Professional, scientific, and controlling instruments: photographic and optical goods: watches and clocks.						
39	Miscellaneous manufacturing.						
40	Transportation, communication, and utilities.		-	-	-	-	-
41	Railroad, rapid rail transit, and street railway transportation.	NO PENETRATION OF IMAGINARY SURFACES I					
42	Motor vehicle transportation.						
43	Aircraft transportation						
44	Marine craft transportation						
45	Highway and street right-of-way						
46	Automobile parking						
47	Communication						
4732	Radio Transmission towers						
4742	T.V. Transmission towers						
48	Utilities						
481	Electric plants, power lines.						
4823	Bulk gas, petroleum storage.						
485	Solid waste disposal.						
49	Other transportation, communication, and utilities.						
50	Trade		-	-	-	-	-
51	Wholesale trade.						
52	Retail trade-building materials, hardware, and farm equipment.						
53	Retail trade - general merchandise.						
54	Retail trade - food.						
55	Retail trade - automotive, marine craft, aircraft, and accessories.						
56	Retail trade - apparel and accessories.						
57	Retail trade - furniture, home furnishings, and equipment.						

MULTIPLE IMPACT AIRPORT AREA

DEVELOPMENT ZONE

Respect limits of all other zones.
Intensive land uses requiring construction should be airport related.

Analyze noise reduction requirements and take appropriate sound insulation measures.

No recreation areas inducing high concentrations of people.

CLEAR ZONES

Respect limits of all other zones.

Minimal vertical structures necessary in connection with predominant use of clear zone land.

No uses inducing high concentrations of people.

TABLE 2 (Cont.)

Continued

58	Retail trade - eating and drinking.						
59	Other retail trade.						
60	Services	-	-	-	-	-	-
61	Finance, insurance, and real estate services.						
62	Personal services.						
63	Business services.						
64	Repair services.						
65	Professional services.						
6513	Hospitals.						
6516	Convalescent, rest homes.						
66	Contract construction services.						
67	Governmental services.						
68	Educational services.						
69	Miscellaneous services.						
691	Religious Activities, Churches						
70	Cultural, entertainment, and recreational						
71	Cultural activities and nature exhibitions.						
72	Public assembly.						
73	Amusements.						
74	Recreational activities.						
75	Resorts and groups camps.						
76	Parks.						
79	Other cultural, entertainment, and recreational.						
80	Resource production and extraction	-	-	-	-	-	-
81	Agriculture.						
82	Agricultural related activities.						
83	Forestry activities and related services.						
84	Fishing activities and related services.						
85	Mining activities and related services.						
89	Other resource production and extraction.						
				55			

NO PENETRATION OF IMAGINARY SURFACES

56
TABLE 2 (Cont.)

Continued

90	Undeveloped land and water areas	-	-	-	-	-	-
91	Undeveloped and unused land area (excluding noncommercial forest development).	NO PENETRATION OF IMAGINARY SURFACES					
92	Noncommercial forest development.						
93	Water areas.						
94	Vacant floor area.						
95	Under construction.						
99	Other undeveloped land and water area.						

In addition to references given in the bibliography and materials reproduced in the appendices, the following Federal Aviation Administration Advisory circulars provide standards which can help assess the appropriateness of a particular land use.

- 1 AC 5300-2C, "Airport Design Standards; Site Requirements for Terminal Navigational Facilities", FAA, September 21, 1973.
- 2 AC 5300-4B, "Utility Airports-Air Access to National Transportation", FAA, June 24, 1975, pp. 65-72.
- 3 AC 150/5200-3A, "Bird Hazards to Aircraft", FAA, March 2, 1972; and FAA Northwest Region Order 5200-5, "Regional Planning for Bird Hazard Detection and Control," March 17, 1977.
- 4 ACC 5370-7, "Airport Construction Controls to Prevent Air and Water Pollution", FAA, April 26, 1971.

4

**PLANNING
AND
IMPLEMENTATION**

PLANNING AND IMPLEMENTATION

THE LAND USE COMPATIBILITY PLAN

The airport land use plan should be included in the Airport Master Plan. While the remainder of this section views the land use plan in that context, land use planning can also be done as part of the airport layout plan, approach and clear zone plan, or independently. When a master plan is not anticipated for a particular airport, the land use plan should be prepared in some other context.

Airport master planning as it moves more heavily into land use issues can no longer occur predominantly within the aviation community. The involvement of local planners, decision makers, and other community interests is of vital importance to the development of an effective land use plan for the airport vicinity. To be effective, the land use element of the airport master plan must be reflected in the local comprehensive plan and should ultimately be implemented and enforced predominantly through zoning tools. The land use element of the airport plan should be as explicit as possible about recommended implementation measures, jurisdictions involved in each implementation strategy, and the time frame within which actions will be taken.

Planning Advisory Committee

The airport planning effort should include representation from those groups with an interest in the development of the airport and its environs. A Planning Advisory Committee should be established. It should have representation from the following groups where applicable and others as local conditions warrant.

PLANNING ADVISORY COMMITTEE

Representatives of:

- Airport Administration, Management, Owner
- Air carriers, fixed base operators, military or other airport users.
- Other aviation interests, including pilot associations, Airport Advisory Committee.
- City and county planning departments of affected jurisdictions.
- City council and county commissions of affected jurisdictions.
- COG's or other regional planning bodies.
- Neighborhood groups and other affected citizens.
- State and federal interests, including the FAA and Oregon Aeronautics Division.
- Business groups and other interested groups or individuals.

The Planning Advisory Committee is the central vehicle through which the best implementation strategies can be identified. This group should review recommended strategies to develop an acceptable and effective set which local decision makers can support. Through this committee, jurisdictional issues should be resolved to provide reasonable consistency across jurisdictional boundaries. New or modified strategies may be suggested to meet local needs.

The Planning Advisory Committee has an extremely important role. Strong land use measures will ensure compatibility between airport and community and preserve the airport as a community asset. Weak measures are often more easily implemented but leave the airport in jeopardy. As the committee balances these conflicting pressures, they are helping to make crucial decisions for the community and sometimes the region or state.

Recommended Implementation Strategies

In instances where incompatible development is possible during the course of the planning effort, airport planners may recommend a moratorium on construction in the study area. Counties have statutory authority to enact an interim zoning ordinance under such circumstances. The major advantage of a moratorium is the speed with which it can be enacted by committed local governments. The interim ordinance involves a relatively lengthy procedure but has the advantage of its legal validity.

As the master plan develops, the airport planners will identify the extent of noise and safety impacts. If industrial growth is expected near the airport, safety considerations, including hazards to air operations, may take on increased significance. Aircraft noise is an increasingly important concern in areas with residential development or potential development. It will be easier and more timely to initiate effective land use controls on undeveloped rural land than on developed urban land.

The airport planners will recommend land use alternatives which appear to be compatible with the needs of the local community. The Planning Advisory Committee will need to examine these alternatives and make recommendations for implementation or modification. The Planning Advisory Committee has the responsibility to examine all methods of land use control and develop strategies which the jurisdictions can implement.

Major implementation strategies are outlined below for each component zone. An explicit listing of other strategies is contained in Appendix "E" and each strategy is detailed in HUD, 1972.

Obstruction Zone - The FAA's model height zoning ordinance or a similar document should be adopted by all affected jurisdictions to establish the obstruction zone. Adoption of the ordinance rarely has serious consequence for existing uses and appropriate variations in the document can be made when necessary.

Clear Zones - The clear zone requires strict control and, in most cases, should be owned by the airport sponsor or in public ownership. Necessary parcels or easements can be purchased by the airport sponsor using ADAP funds (for publicly-owned airports) or other funding sources. Land can also be acquired by trading non-critical airport property, by donation, or least desirably, land for publicly-owned airports can be acquired by condemnation. The latter is a last resort because of the ill-will generated by such action. The combined effect of easements and zoning can be greater than the effect of either one used alone.

Deed restrictions, as private contractual agreements, can be far more restrictive than zoning. They may be used to protect clear zone land though they require enforcement.

Interjurisdictional agreements may be possible when the clear zone land is owned by another public agency, providing the agreements are binding and respected. If these alternatives are not possible, airport management strategies may have to be employed including restricting use of the runway by heavier or jet aircraft, or closing the runway.

Once control of the clear zone is established, it can be incorporated in an airport development zone to afford additional protection or included in some other low-intensity use category.

Approach Safety Zone - The land under the approach surface can be dealt with in a variety of ways depending on the airport and the community. Where possible, the simplest way may be to designate land under the approach for low-intensity agricultural use in the comprehensive plan and to zone it accordingly. This works only if the land is relatively undeveloped and the plan designation does not permit or encourage large aggregations of people. Development pressure may make this a short-term solution.

The major tool recommended for this area is the approach safety zone. The details of the limits on this zone should be established using guidelines in Table 2 on page 53 and the needs of the particular airport and community.

Section V of FAA's model height zoning ordinance prohibits uses which "cause electrical interference with navigational signals," "make it difficult to distinguish between airport lights and others," "result in glare in pilot's eyes," "impair visibility," "create bird strike hazards," or "otherwise ... create a hazard or endanger" airport operations. In the approach safety zone, the control of these potential hazards is extremely important. Though these use restrictions are usually included in obstruction zoning, they should be reiterated and detailed in the approach safety ordinance. Industrial and recreational uses are generally acceptable uses in the approach safety zone but both uses must be carefully reviewed for possible operations hazards.

Noise Corridor Zones - The noise overlay zone is implemented using the zoning powers of local jurisdictions. If one or more noise zones are included in the overlay zone, they should systematically permit or restrict land uses as suggested in Table 2.

If residential construction cannot be precluded in high noise impact areas, new construction should include protective covenants in deeds indicating acceptance of noise impacts.

Further consideration may be given to noise insulation and soundproofing in the ordinance or building code. Sound insulation requirements are detailed in Bolt, Beranek and Newman (1966).

For moderately impacted areas--those between Ldn 55-65--several options are available. As suggested by the FAA (1976), a zone with minimal requirements would allow single-family housing but at low-densities and/or allow noise sensitive uses with appropriate sound insulation. Optimal controls would preclude single-family residential development. Most other uses are not restricted. For McNary Airport in Salem, one noise zone was identified with boundaries of Ldn 65 (MWVC, 1977) with optional application of these controls to Ldn 60.

Airport Development Zone - The airport development zone is also established through the local zoning code. It should regulate land use as suggested in Table 2 and reflect plans for the immediate airport vicinity.

THE COMPREHENSIVE PLAN

The major noise and safety issues inherent in airport operation are no different from other community land use problems dealt with through the comprehensive plan and the zoning code. Industrial areas are customarily separated from residential areas to avoid noise and pollution problems, for example.

Regardless of the implementation measures ultimately developed to mitigate land use conflicts near airports, it is critically important that the airport land use plan be incorporated into the local comprehensive plan. Several techniques are possible. The technique used to incorporate the land use plan for McNary Airport and Environs into the Mid-Willamette Valley Comprehensive Plan, is to add a goal to the comprehensive plan which endorses and supports provisions of the airport land use plan. The master plan is referenced as a detail element of the comprehensive plan. In instances where this approach is not workable, the comprehensive plan can reiterate essential elements of the master plan and make reference to the appropriate zoning controls.

Cumulative zoning permits residential uses in commercial and industrial zones. Since residential uses often need to be restricted around airports, cumulative zoning presents special problems. In areas without cumulative zoning it may be possible to provide adequate land use guidance through the land use designations in the comprehensive plan rather than including special noise or safety zones. If this is done, however, it is imperative that the specific uses permitted within the land use designation are closely examined with necessary modifications clearly included as part of the designation. For example, rather than designating a noise overlay zone in which residential development is not permitted, the existing "exclusive agriculture" zone of the comprehensive plan may be considered adequate protection. In fact, that designation may be wholly inadequate without an overlay zone. Such designations sometimes permit one to one-and-a-half acre parcels which could result in hundreds of housing units impacted by noise. Similar conflicts occur when commercial uses permit residential development or light industrial uses allow electrical interference and glare. Without careful attention, regulation of land uses around airports by means of existing comprehensive plan designations may be unsatisfactory. Some additional designations specific to the airport will often be required.

ZONING

The zoning code, as the major implementation tool, carries out the comprehensive plan and gives detail. In any jurisdiction having cumulative zoning, residential uses are permitted in some commercial and industrial areas. In areas where residential development is currently permitted but must be restricted, the zone designation must be changed, an overlay zone excluding residential use must be used, or the zone code must be modified to exclude residential from the zone.

Zoning controls need careful tailoring both to the characteristics of the airport and to special conditions in the community. Areas requiring zoning controls will be defined in the master planning process. Ordinances for these areas should be developed using the land use matrix (Table 2) as a guide with modifications as local needs dictate. In many instances, it is difficult to say a particular use "is" or "is not" compatible. In those instances, the land use should be identified as "conditional."

Many compatibility problems may be solved by careful use of existing zoning designations. But the overlay zone may be essential in some instances and offer additional control in others.

Several sample airport zoning documents are now available, though modification will frequently be required. In addition to the FAA's model obstruction ordinance (August, 1977), the revised Salem Zoning Code (1977) provides separate safety and noise ordinances. One model air installation noise zoning ordinance (Department of the Navy, 1973) relies heavily on building code modifications to accomplish compatibility. An effort is currently underway to develop additional zoning ordinance materials in the format developed by the Bureau of Governmental Research for airport-related problems.

PLANNING AND ZONING AUTHORITY

The Oregon Revised Statutes (ORS) provide substantial authority to local governments to plan, zone, and enforce those controls. The authority for comprehensive planning coordination is detailed in ORS Chapter 197. It establishes the Department of Land Conservation and Development (LCDC) and charges cities and counties to prepare and adopt a comprehensive plan consistent with LCDC goals and guidelines. It authorizes cities and counties to enact zoning, subdivision and other ordinances to implement their comprehensive plans. LCDC's transportation goal, in turn, requires transportation plans and comprehensive plans to be consistent and requires that negative social, economic, and environmental impacts and costs be minimized.

County planning authority is derived from ORS Chapter 215. The statute reiterates the need for compliance with statewide goals and authorizes the use of comprehensive planning, zoning, and subdivision or other ordinances to promote public health, safety, and general welfare. The county is authorized to adopt an interim zoning ordinance if land use changes threaten to conflict with a proposed ordinance (ORS 215.104). Considerable latitude is given to the governing body in establishment of non-farm uses in "farm use" zones. ORS 215.605 authorizes the establishment of housing codes.

City planning and zoning is authorized by ORS Chapter 227. In addition to planning and zoning authority, the city can institute "development ordinances" to "encourage and regulate the development of land."

The airport zoning act contained in ORS Chapter 492 provides state-enabling legislation for obstruction zoning.

FUNDING SOURCES

Funding for airport land use planning and implementation may come from federal, state and local sources. Funds are generally available both for airport master planning of publicly-owned airports and for the updating of comprehensive plans to reflect airport land use plans.

Typically, the FAA provides 90 percent of the planning grant (PGP) funds to produce an airport master plan. The Federal share will probably be reduced to 83 1/2 percent beginning October, 1978. Funding priorities favor airports with severe operational restrictions or capacity constraints, and those with a major role in the aviation system. These federal funds are generated from federal tax on airline passenger flights, aviation gasoline tax, and registration fees. The State Aeronautics Division attempts to provide half of the local match required for master plan funding. The remainder is local funding provided either by the airport sponsor alone or in cooperation with the other jurisdictions which will benefit from the master planning effort.

The FAA also may provide 90 percent matching funding under the Airport Development Aid Program (ADAP) for airport capital improvements. These funds have been used predominantly for development on airport property (lighting, runway extensions, taxiway extensions, etc.,). While this remains a major purpose, increased concern about land use conflicts is making these funds increasingly available for necessary purchase of clear zone land, visual barriers, and other uses to reduce land use conflicts. The ADAP match will probably also be reduced to 83 1/2 percent in October, 1978. The state program may provide half the local share, as it does with PGP funds.

Growing national concern for airport noise problems is likely to increase federal funding for noise abatement planning and implementation.

The 1977 Oregon Legislative Session passed Senate Bill 570, (Oregon Laws 1977, Chapter 664). The bill amends ORS Chapter 197 and establishes a Land Conservation and Development account in the State General Fund. These funds can be used for the variety of county planning functions required by LCDC as outlined in ORS Chapter 197. These funds may be used for comprehensive plan amendments to incorporate airport land use planning.

In addition, the resources of a variety of other federal, state and local agencies can be used to supplement and carry out land use compatibility plans. In Salem, community block grant funds for neighborhood revitalization are being used voluntarily for sound insulation of homes within the Ldn 65 noise contour. Frequently, the establishment and enforcement of land use controls is all that is required. Subsequent development, regardless of funding source, is modified to be consistent with those controls.

IMPLEMENTATION RESPONSIBILITY

The Planning Advisory Committee members determine those land use strategies which both provide compatibility between the airport and environs, and can be implemented through their respective jurisdictions. Each strategy and the process to carry it out should be identified. A time frame for implementation should be developed and included in the airport land use plan. The jurisdiction responsible for implementation of each strategy should be noted. Normally the approval of the city council, county commission, or planning commission is required. The uncertainties of the process may make a precise time frame impossible. A general time table should be included and the process should be carefully outlined.

MONITORING

Once the airport land use plan is complete and implementation is underway, monitoring of conflicting land use changes is critically important. The Planning Advisory Committee members representing implementing jurisdictions are the key to successful monitoring of future land use changes. This committee may be retained as a review body, or some other mechanism must be established by which airport impacts of proposed changes are sure to be considered.

Representatives of all jurisdictions should be responsible for notifying the review body of potential conflicts--zone change requests, variances, or other changes within their jurisdictions which may affect airport compatibility.

The review body should be advisory to the city and county planning commissions, hearings officers, city council, and county commissioners. The committee should be officially recognized by the city council or county commission. The review body should advise on any future land use issues as early as possible to assure input from the beginning of a potentially detrimental land use change.

CONTENTS: LAND USE ELEMENT OF THE MASTER PLAN

The land use element of the master plan should address the following points. Airport layout plans or approach and clear zone plans should address Section II and points A4 and A5 of Section III of the following outline. In most cases, a report should be included covering the remainder of Section III.

- I. Existing Conditions
 - A. Existing land use and land use plans where available.
 - B. Zoning applicable to the airport and environs indicating uses which are permitted which pose potential conflicts.
 - C. Potential for development around the airport.
 1. Natural features affecting development (geology, soils, steep slopes, water table, other).
 2. Utilities available (water, sewer, natural gas, electricity, roads, other).
- II. Land Use Compatibility and Conflict
 - A. Land area affected by the airport.
 1. Obstruction zone
 2. Approach safety zone
 3. Clear zones
 4. Noise zones
 5. Airport development zone
 - B. Land use changes to be made or trends to be encouraged (transition to industrial, commercial, agricultural, etc.,).
- III. Implementation Strategy
 - A. Actions to be taken.
 1. Airport management strategies
 2. Comprehensive plan modifications
 3. Modification of other plans affected (state, neighborhood, etc.)
 4. Zoning changes--modifications of existing zoning and addition of overlay zones

5. Other changes or special considerations (landfills and gravel extraction, building code changes, soundproofing)
- B. Implementation responsibility.
1. Identification of jurisdictions or groups responsible for implementing each action
 2. An outline of the process for taking action
 3. Time at which each action is needed and expected to be completed or a general timetable.
- C. Monitoring - Mechanism to assure that any future change reducing compatibility between the airport and its environs are brought to the attention of interested parties, including airport management and the Aeronautics Division.

SAMPLE AIRPORT LAND USE CONTROLS

The airports for which noise contours and imaginary surfaces were shown earlier are illustrated here with the recommended components of the airport overlay zone and airport development zone. A brief analysis of existing conflicts is given and recommended corrective measures are suggested. While the first three examples are preliminary analyses, the analysis of McNary is the result of a completed study conducted by the Mid-Willamette Valley Council of Governments (1977).

PACIFIC CITY AIRPORT

At Pacific City, the operations are few and composed entirely of light aircraft. Noise zones are meaningless here and should not be included though an occasional noise complaint might occur. Safety is a primary concern. Obstructions should be controlled using the model height zoning ordinance. Further, clear zones should be maintained and an approach safety zone should be used to control residential densities and the potential aggregations of people which could occur in this coastal resort community. An approximate airport development zone is indicated.

The siting of this airport puts it into strong conflict with the community in which it is located. With the city's major street only a few hundred feet to the east, paralleling the runway, and a major access route crossing within only a few feet of the north end of the runway, the pressure to develop commercial and residential uses along these routes has resulted in a wholly untenable condition (see photographs page 72). On the east edge of the runway, not only penetrating the transitional surfaces, but actually built on the primary surface are a motel, bank, post office, and 9 residences! At the north, the beach access road requiring 10 to 15 feet of vertical clearance is too close for safe operation, power lines obstruct, and a real estate office rests in the clear zone just across the road. Though pressures are less on the west, a dead end road flanks the runway and construction has occurred between the road and the runway. Only to the south is the land use compatible, apparently because the estuary flows through most of the clear zone. The remainder of the clear zone and south approach surface extend over relatively inaccessible dunes which are proposed for use as a state park, a use which should be encouraged. Terrain penetrates the imaginary surfaces on the east and northeast.

To bring this airport nearer federal standards and to eliminate serious hazards, considerable commercial property needs to be acquired and obstructing buildings removed. Power lines should be put underground and the beach access route should be moved north. Alternatively, the airport should be moved or closed.

At Pacific City, the price of maintaining the facility in the future would seem very high. Those who benefit from the airport and those who are impacted by it should decide its value through the process of implementing land use controls.

PACIFIC CITY AIRPORT

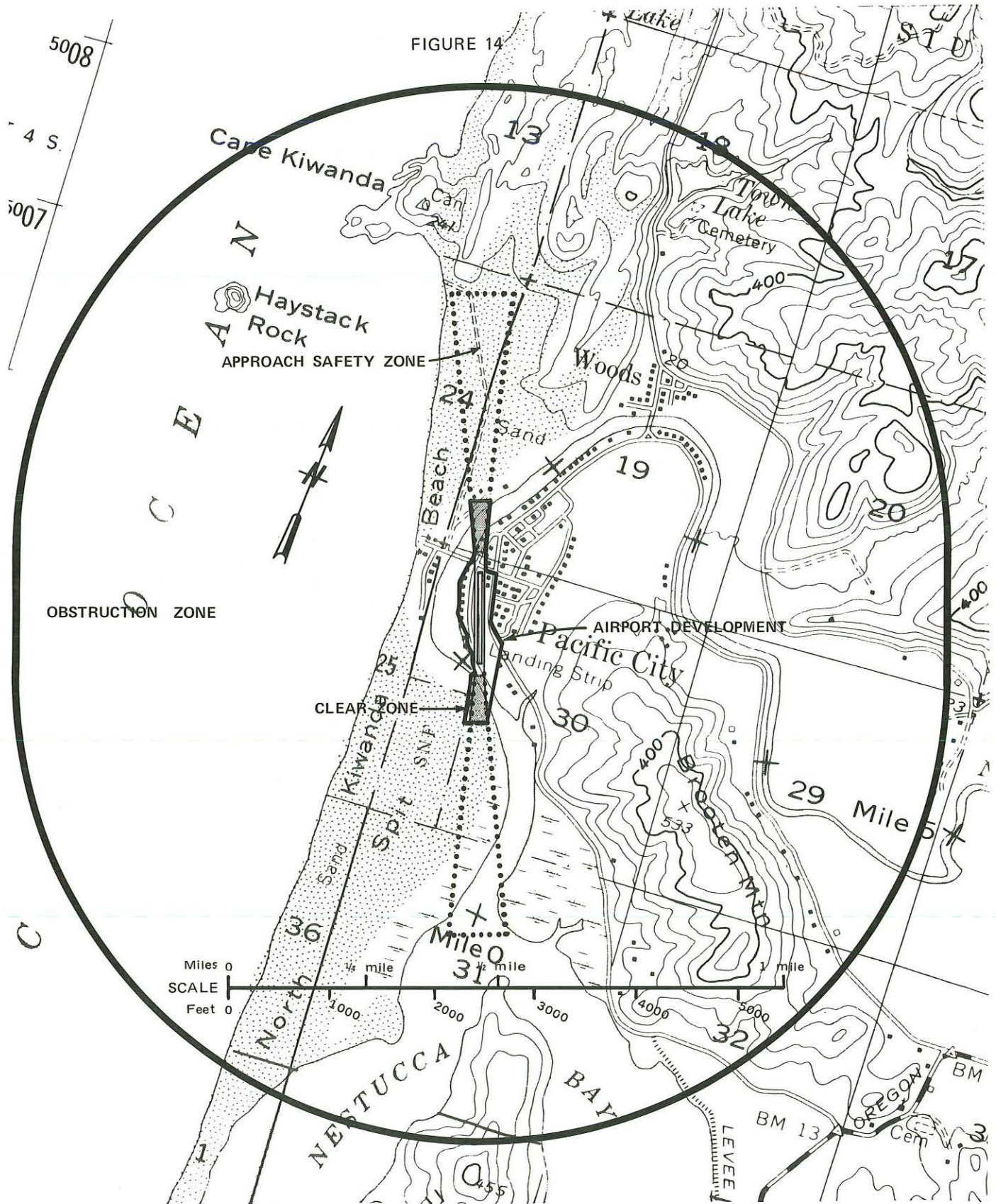


In this view looking west across Pacific City's runway, several new public buildings can be seen in the narrow strip between the highway and the runway. The short runway ends abruptly at the east-west highway segment on the right of this photo.



Most pilots flying out of Pacific City Airport have this view as they take off from the North end of the runway. A maximum performance take-off is required to clear these power lines and structures. The accident potential is great for residents in line with the runway.

FIGURE 14



PACIFIC CITY AIRPORT OVERLAY ZONE AND AIRPORT DEVELOPMENT ZONE

INDEPENDENCE AIRPORT

Although the Independence Airport handles few jet aircraft, the substantial numbers of other operations lead to considerable noise impact. A noise corridor based on the Ldn 55 is used. Such a zone would discourage most new residential uses and would require sound buffering in noise impacted areas. Heavily noise-impacted areas would likely be within the clear zones and runway area. The Independence area is fortunate to have publicly-owned property and water reservoirs to the south of the airport providing a buffer between the airport and community. Areas to the north are controlled by the noise zone, thereby reducing the importance of a special approach safety zone. To the south, the safety zone can preclude large concentrations of people.

An obstruction ordinance should be adopted and an airport development zone as suggested here should be developed. Clear zone easements have been obtained and should be reinforced through zoning.

The biggest current compatibility problem is a small housing development immediately adjacent to the east side of the runway and having direct access to the runway. Expansion of this development should be precluded by the noise corridor zone. Because of the close proximity to the runway, greater soundproofing requirements should be encouraged. Legally binding agreement to accept noise impacts have been obtained for existing housing units and similar deed restrictions should be included for any subsequent development in the noise corridor. Other developments have been considered southwest of the airport just south of Hoffman Road. Based on this analysis, such a development would not be substantially affected by airport noise or safety conflicts. While development pressures are increasing in the Monmouth-Independence area, ensuring compatibility between the airport and community is still quite possible without constricting growth of the area. Polk County's encouragement of agricultural uses is, of course, compatible with the airport.

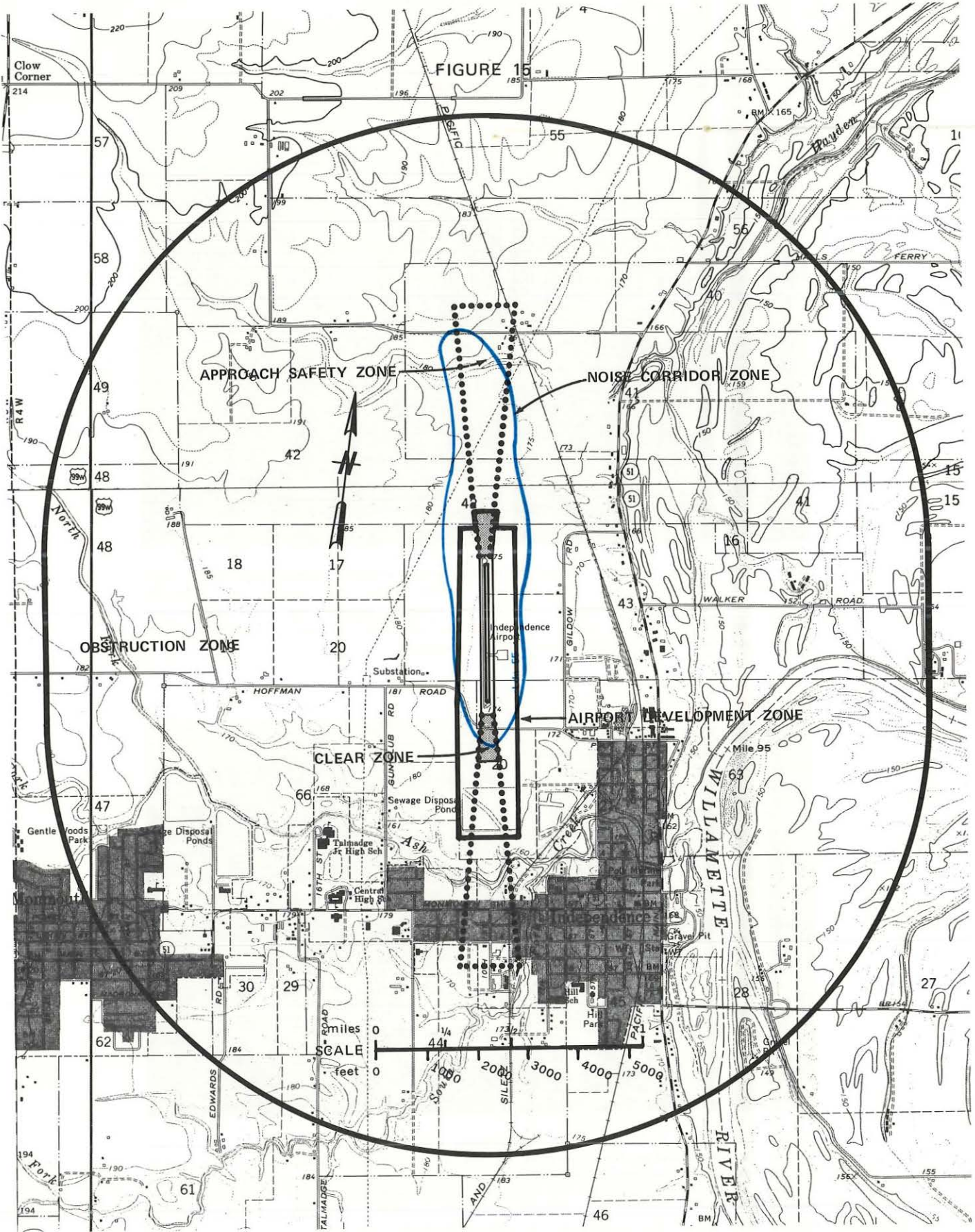
INDEPENDENCE AIRPORT



When Independence Airport is viewed from the north, residential development can be seen abutting the facility. Even with the light aircraft using the airport, this residential development receives noise impacts. City owned property protects the south end of the runway though the reservoir poses some bird-strike potential. The city of Independence on the left stretches across the background toward Monmouth.



In this view to the Northeast across Independence Airport, the open farmlands north of the facility are clearly visible. Noise contours for the airport indicate no significant noise impact on the residential development in the foreground. Unless land use controls are maintained, however, there is great potential for increased development and serious airport-community conflict.



INDEPENDENCE AIRPORT OVERLAY ZONE AND AIRPORT DEVELOPMENT ZONE

AURORA AIRPORT

Aurora is a very high activity airport with many business jet operations. This requires an extensive and thorough land use treatment to ensure compatibility. It should include zones for both moderate and substantial noise impacts. The obstruction zoning ordinance should be adopted, clear zones should be protected, approach safety zones should be incorporated, and an airport development zone should be established.

Existing conflicts include a mobile home park bordering the runway on the west, a residential development in the noise impacted area to the southwest, and, perhaps most difficult, the planned community of Charbonneau bordering the Willamette River to the north and directly under the flight path. (See photos, page 79.)

The substantial impact noise corridor in which residential development should not occur includes both the mobile home park and the existing development to the southwest. Marion County has considered encouraging industrial development in this area and to the extent this plan is compatible with LCDC goals and guidelines, it should be encouraged as a compatible form of development. Through this approach or some other, efforts should be made to relocate the mobile home park in the interim. Both the mobile home park and the residential development should enter into legally binding agreements to accept the noise impacts of the airport. Further residential development in the substantial impact area should not be permitted. Though Marion County's industrial zone permits residential development, it should not be permitted within the substantial impact area. Moderate noise impact extends directly across Charbonneau, affecting not only the existing structures but adjacent lands proposed for development. As indicated in the master plan, the majority of the impact has been mitigated through airport management strategies, with aircraft maneuvering to the west of Charbonneau. This is difficult without a tower, however. If the development were to cross Eilers Road and expand to the south, more difficult conflicts would ensue. Charbonneau's current density is too great to be acceptable in a noise impact corridor. Careful planning of the noise impacted area should ensure it as an asset to the community without creating conflict with the airport. Soundproofing should be encouraged.

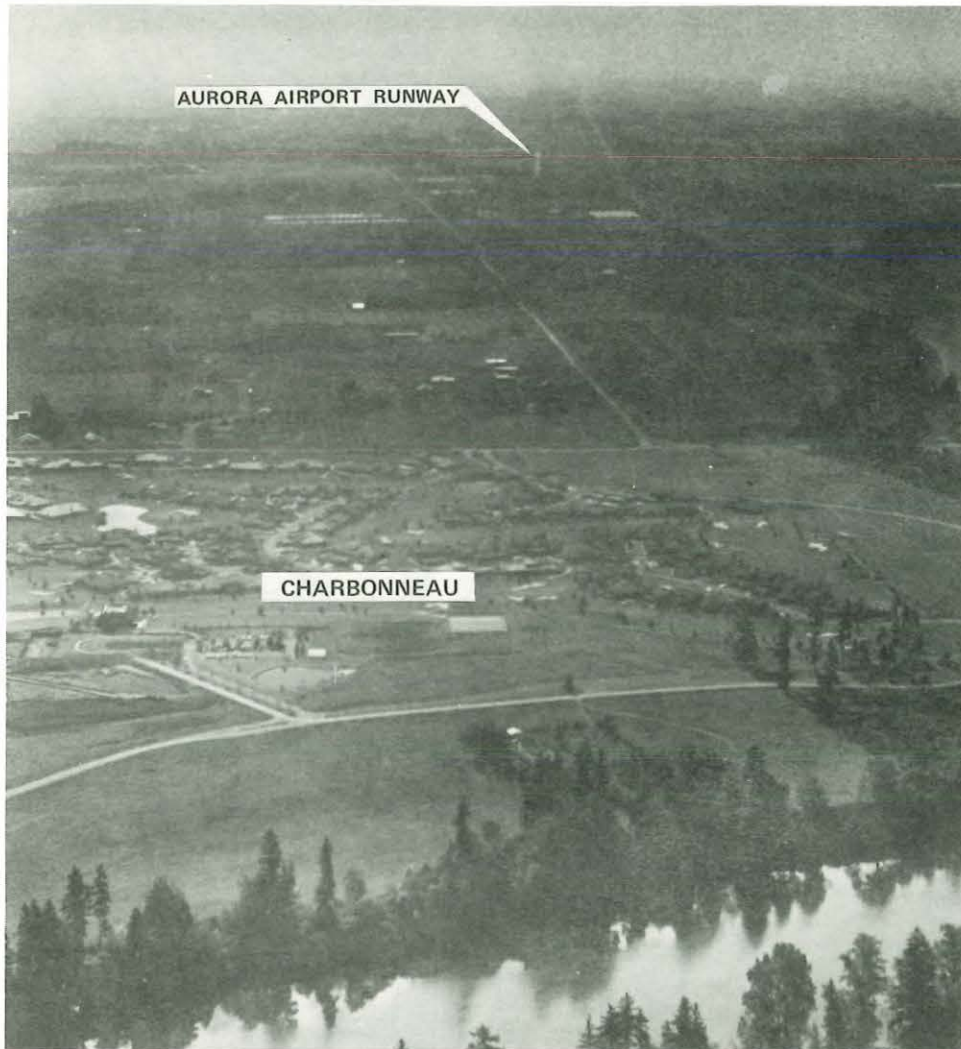
The approach safety zone serves an important function at Aurora. It provides guidance for further development at Charbonneau or similar developments to assure that community facilities attracting groups of people are not located in this potentially hazardous area.

Adoption of the obstruction zoning ordinance should have little current impact on the area but will guard against future obstructions. The airport development zone shown here is taken

largely from Aurora's 1976 Master Plan. Clear zone easements have been acquired though additional easements are needed. These should be reinforced with zoning or other controls.

In preparation of Aurora's Master Plan, multi-jurisdictional issues surfaced which can seriously impair the planning effort. Clackamas County has jurisdiction over all land north of the runway. The airport and the remainder of the property are in Marion County. The state owns the airport. Differences in philosophy and perceived value of the airport continue to jeopardize effective compatibility planning.

AURORA AIRPORT



Looking south from the Willamette River and Charbonneau, the Aurora Airport is visible just below the horizon with the heavily used north runway end aimed directly toward the planned residential community. While departing aircraft currently veer west (right) to avoid noise impacts, further residential development between Charbonneau and the airport would make the problem increasingly unmanageable.



Aurora Airport is shown passing diagonally across the upper left portion of this photograph. Aurora is in the foreground. If the airport and the area between the city and the airport were annexed, several consequences would follow. City services would ultimately be available for planned industrial development near the airport. The annexation would also increase pressure for residential development in the airport vicinity. A mobile home park currently impacted by airport noise lies immediately west of the airport (upper left).

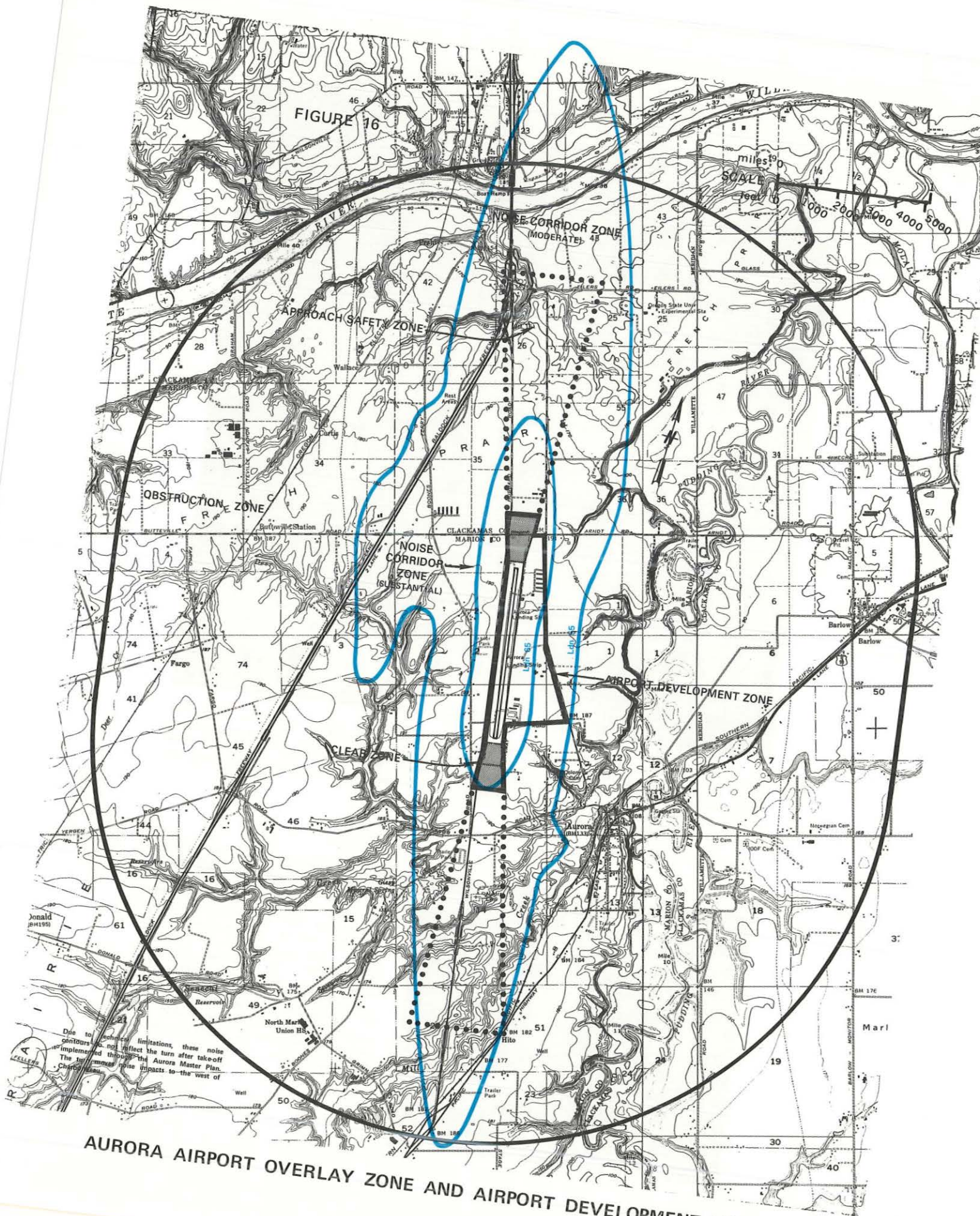


FIGURE 16

Due to technical limitations, these noise contours do not reflect the turn after take-off. The turn after take-off noise impacts to the west of Aurora.

AURORA AIRPORT OVERLAY ZONE AND AIRPORT DEVELOPMENT ZONE

SALEM - McNARY FIELD

McNary Field provides an example of a major Oregon airport in a developed urban area. While the airport area to the south-east is relatively open (but subject to development pressure), the area to the northwest is highly developed.

Extensive land use controls are needed including a noise corridor, approach safety zones, clear zones, obstruction hazard protection, and an airport development zone. The following material is drawn from the Land Use Plan for McNary Airport and Environs which is being implemented. For greater detail, the plan should be consulted (MWVC, 1977).

The existing land use conflicts are many though they can change rapidly. Ponds resulting from gravel extraction have attracted birds and resulted in bird strikes. Suburban development, including mobile home parks, is increasing near the airport on the south and east. A large parcel just east of Turner Road receives airport noise but has been proposed for residential development. Major problems exist to the north. Immediately north of Mission Street in the approach is a parcel available for commercial or residential development. To the northwest, airport noise impacts an established residential neighborhood. A discount department store rests in the clear zone to the northwest while another small parcel in the clear zone sports a sign proclaiming "will build to suit".

The substantial noise impact zone is being established at McNary--at the option of Salem neighborhoods it can be extended to Ldn 60. Within that zone, no new residential development can occur unless it is filling in the already established Southeast Salem Neighborhood (SESNA) northwest of the airport. New residential development would require sound insulation and residents are involved in a voluntary program of sound insulation in existing units.

A moderate noise zone is not essential because other urban noise is comparable to noise levels in that zone.

Approach safety zones are being established for the length of the approach (except the south instrument approach where the zone extends only 10,000 feet). Gravel extraction is being prohibited in these zones. Residential development is permitted only at low densities. Uses which encourage large aggregations of people are prohibited.

Significant portions of the clear zones are owned in fee and included within the airport development zone. Serious conflicts in clear zone parcels are being negotiated. One parcel with potential for hotel development is being exchanged for a parcel near the I-5 Freeway which will not interfere with airport operations. Through neighborhood and state plans,

another potentially conflicting parcel is being developed as a site for the State Motor Pool. Another small parcel is likely to be purchased as highly valued commercial property to avoid incompatible development. The FAA's model obstruction ordinance is being adopted.

In Salem, it is consistent with the general growth of the city to encourage industrial development in the airport vicinity. Large parcels have already been designated in that fashion in the comprehensive plan. The McNary Plan would have the conflicting commercial or residential uses in the zoning code changed to industrial uses which preclude residential development.

The land use plan being developed at McNary Field is one of the most sophisticated and adequate airport land use plans in the state. It uses a variety of the techniques discussed in this report to effectively ensure compatibility between the airport and the community.

SALEM – McNARY FIELD

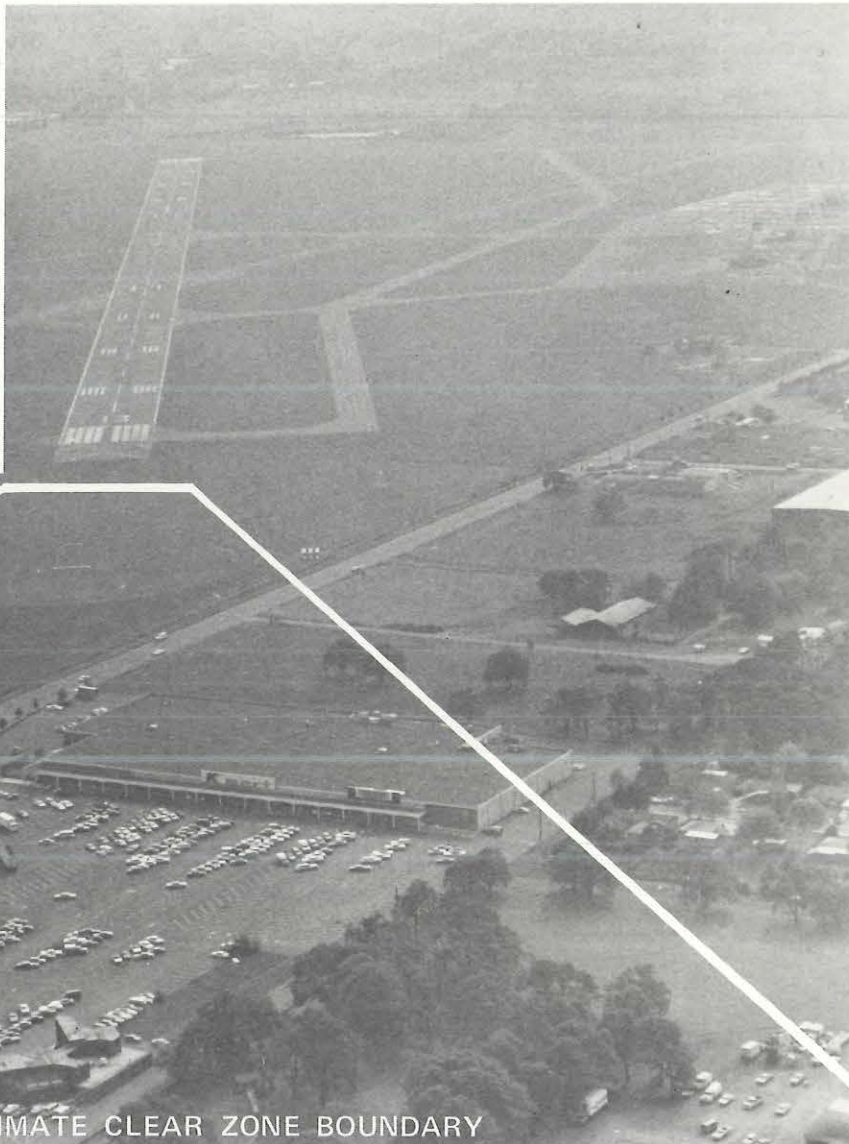


United Airlines planes and most other jets landing in Salem have this view as they approach McNary Field from the south using the precision instrument runway. The sizable mobile home park on the right of the runway is moderately impacted by jet noise. The majority of Salem's urban development is north (and west) of the runway. Residential areas directly to the north receive noise impacts from jet take-offs.



In this view of McNary Field's main instrument runway, several ponds which create bird-strike hazards are visible, as well as a large noise impacted mobile home park immediately adjacent to the runway.

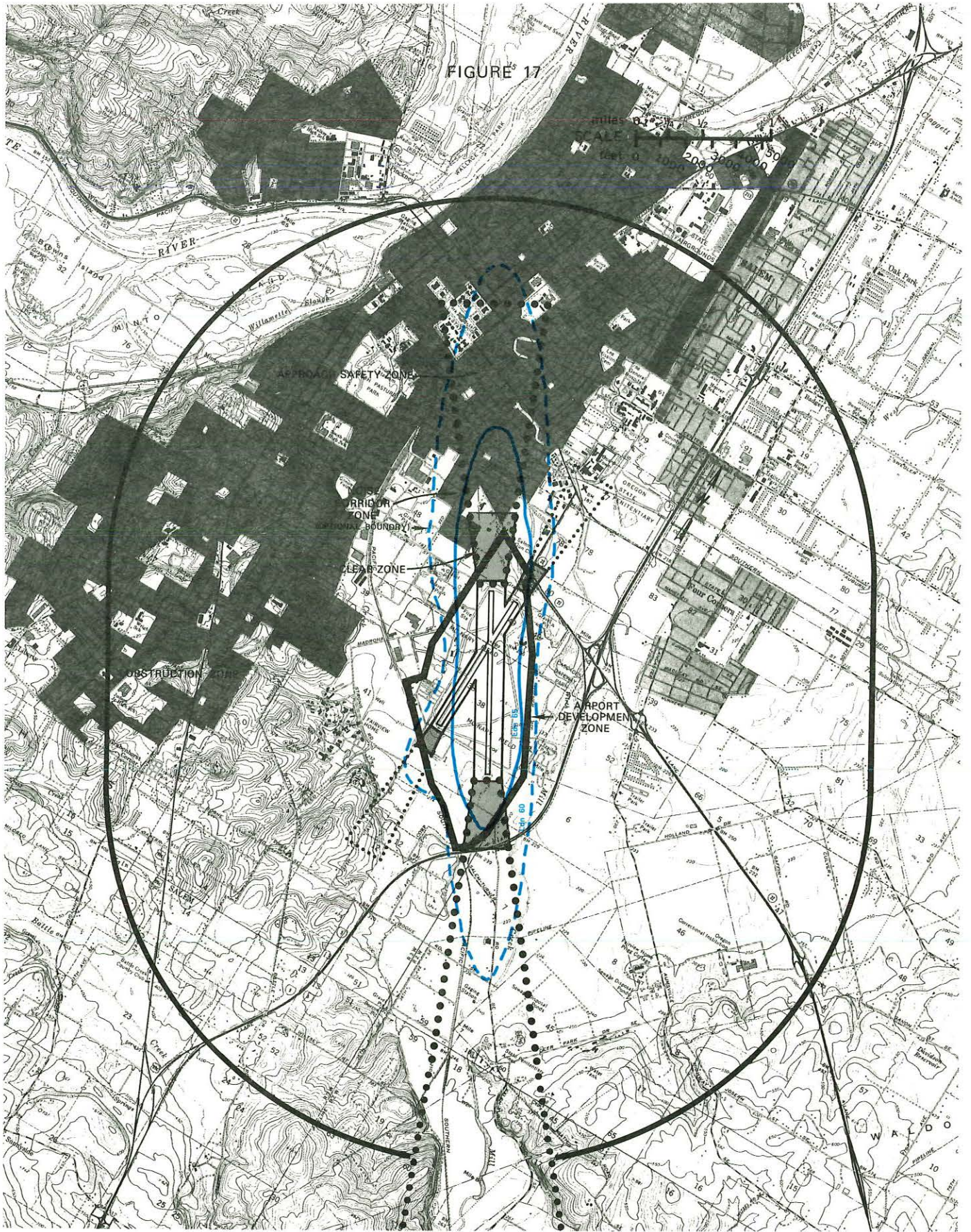
SALEM – McNARY FIELD



APPROXIMATE CLEAR ZONE BOUNDARY



Most jet take-offs from Salem's McNary Field pass over the discount department store shown here and the residential neighborhood in the foreground. The store is located in the clear zone. The small parcel of clear zone land at the intersection on the left in this photo sports the sign, "will build to suit." The parcel zoned "commercial" can be used for a variety of uses incompatible with the airport.



McNARY FIELD OVERLAY ZONE AND AIRPORT DEVELOPMENT ZONE



5
APPENDIX

APPENDIX A

THE AIRPORT NOISE EVALUATION
PROCESS (ANEP)

ANEP was proposed to the FAA by the EPA in the November 22, 1976 issue of the Federal Register. The process, which has not been adopted officially by the FAA, identifies a methodology by which airport noise impact analysis can be carefully tailored to the individual community.

The methodology is included here only as reference material which may be of value in unique situations.

-AIRPORT NOISE EVALUATION
PROCESS (ANEP)

1. DEFINITIONS

Sound exposure level (L_{AE}), in decibels, is the level of the time integral of A-weighted squared sound pressure, with reference to the square of the standard reference sound pressure of 20 micro pascals and a reference duration of one second.

Equivalent continuous sound level (L_{eq}), in decibels, is the A-weighted mean square sound pressure level over a stated time period.

Day-night average sound level (L_{dn}), in decibels, is the 24-hour average sound level, from midnight to midnight, obtained after adding 10 decibels to sound levels in the night from midnight to 7 a.m. and from 10 p.m. to midnight (0000 to 0700 and 2200 to 2400 hours).

Indigenous sound level, in decibels, is the day-night average sound level normally associated with activities and sources common to residential neighborhoods, in the absence of aircraft noise and the noise generated by major freeways, trains, industries, or other specific sources.

Background sound level, in decibels, is the common logarithmic sum of indigenous sound level and the contribution to day-night average sound level provided by all other residential noise sources other than aircraft. If other sources in the residential area do not exist, or are disregarded, the background sound level is equal to the indigenous sound level.

Incremental aircraft impact, in decibels, is the positive arithmetic difference between background sound level and the common logarithmic sum of aircraft and background sound levels where that sum is computed on the following scale:

Aircraft Sound Level Less Background Sound Level	Value added to Background Sound Level to Determine Common Logarithmic Sum of Aircraft and Background Levels
<p align="center">10 or more 9 8 7 6 5 4 3 2 1 0 -1 -2*</p>	<p align="center">10 or^a more 10 9 8 7 6 5 5 4 4 3 3 2</p>
<p>* The cut-off at - 2db is utilized because this is considered as the minimum value where recognition of aircraft noise can be identified as a contributor to total noise, i.e., aircraft plus background.</p>	

Gridpoint array is the format used to display aircraft day-night average sound levels and consists of a cartesian grid system of uniformly spaced points; aircraft average day-night sound level is computed at each point of the cartesian grid and so displayed.

Gridblock is the land area bounded by 4 gridpoints which form a square, the sides of which are parallel to the axes of the cartesian grid system.

Gross study area is the land area enclosed by a line which connects the gridpoints of an aircraft day-night average sound level gridpoint array printout which are nearest to 55 L_{dn} but which do not exceed 55 L_{dn} .

Net study area is the land area included within the gross study area which is exposed to an incremental aircraft impact.

Airport boundary line level, in decibels, is the aircraft average day-night sound level on the line established by the land held in fee simple by the airport.

Community impact boundary line is the line established by the land (a) which is now used and can reasonably be expected to continue to be used in a way which is compatible with the noise levels to which it is exposed or (b) for which the development rights have been purchased such that only development compatible with the noise levels to which it is exposed is allowed. Land which is merely zoned for compatible use or for which aviation easements have been purchased and on which incompatible land use is possible is not included. Compatibility is determined according to Table 1 of this Appendix.

Homogenous development is defined as land in residential use upon which there is a uniform spacing of residential structures of a similar type.

Noise units are calculated by taking the product of incremental aircraft impact in a specific area and the residential population of that area.

Potential noise units are calculated by taking the product of incremental aircraft impact in a specific area and the population which would reside in that area if undeveloped property were to be developed in a manner consistent with its principal permitted use, pursuant to local land controls, control policies or use plans.

Undevelopable property is land which cannot be built upon because of permanent physical or legal constraints, e.g., held in fee, flood plains, land subject to use easements, restrictive covenants or lease-hold agreements by governmental entities for public purposes having the same effect as permanent open space restrictions.

Undeveloped property is land which is developable, but which has shown a 10 to 15 year history of stability, i.e., an absence of zoning changes, platting or subdivisions, water, sewer and utility extensions, building permit applications, and the existence of tax assessment valuation consistent with permitted use.

Developing property is land with a 10 to 15 year history of instability, as evidenced by the same public record criteria used to define undeveloped land.

2. PURPOSE

It is the purpose of this part to establish a uniform methodology for Aircraft Noise Evaluation in the vicinity of airports, including the determination of Boundary Line L_{dn} Levels. Such methodology employs a prescribed set of noise descriptors which are used to determine cumulative aircraft noise levels, for boundary line assessments, and to compare cumulative aircraft noise levels with activities indigenous to affected communities, for assessment of Aircraft Incremental Impact. All airport noise abatement plans prepared pursuant to the Airport Noise Regulation shall employ this methodology, or its equivalent, for the characterization of aircraft noise impact.

3. NOISE DESCRIPTORS

(a) **Single Event.** The sound exposure level (L_{Ae}) shall be employed for the analysis and characterization of single aircraft noise events.

(b) **Cumulative events.** The day-night average level (L_{dn}) shall be employed for the analysis and characterization of multiple aircraft noise events and for the estimation of community indigenous and/or background noise levels. Multiple aircraft events are analyzed in terms of an annual average daily number of operations.

(c) **Incremental aircraft impact.** The positive arithmetic difference between background sound level and the common logarithmic sum of aircraft and background sound levels. Aircraft sound levels are considered to provide an increment to background sound levels when the aircraft level exceeds the background level by an increment at which recognition of aircraft noise can be identified as a contributor to total noise.

4. DETERMINATION OF AIRPORT BOUNDARY AND COMMUNITY IMPACT BOUNDARY L_{dn} VALUES

To provide the public with an indication of the extent of the noise impact of an airport, the proprietors of all civil air carrier airports, i.e., those airports which hold a current Airport Operating Certificate under Part 139 of the Federal Aviation Regulations, shall determine their airport boundary line L_{dn} values at a sufficient number of points on their boundary line so as to be able to certify that said levels are nowhere in excess of 65 L_{dn} or that said levels do exceed 65 L_{dn} and likewise for L_{dn} 75. At any boundary line where L_{dn} values exceed 65 L_{dn} , the proprietor shall determine the Community Impact Boundary Line and identify land which is exposed to greater than L_{dn} 65 and to greater than L_{dn} 75 which is not contained within



the Community Impact Boundary Line. Proprietors may further specify what portions of this latter land is zoned for compatible use. Table 1 of this Appendix presents compatible use information for several land uses as a function of L_{dn} levels for the purpose of identifying the Community Impact Boundary line and land zoned for compatible use.

Airport boundary line level and Community Impact Boundary line designations shall be submitted to the Administrator within 120 days of the date of promulgation of this regulation. Said designations and declarations shall be submitted together with copies of the working materials and data used to develop them, as described below.

Boundary line L_{dn} levels shall be determined according to the data and methods presented in "Calculation of Day Night Levels (L_{dn}) Resulting From Civil Aircraft Operations," (GPO No. _____) and shall explicitly follow the techniques described in Section III of the referenced document, "Calculation of L_{dn} Values at a Point" where all such points lie on the boundary line. At a minimum, L_{dn} values shall be determined for the intersection of each extended runway centerline and boundary line; L_{dn} calculations shall be performed at a sufficient number of points between the intersections of the extended runway centerlines and boundary lines to enable the proprietor to certify that boundary line levels either do or do not exceed 65 L_{dn} and likewise for L_{dn} 75.

5. INCREMENTAL AIRCRAFT IMPACT

When required by this regulation, the Incremental Aircraft Impact methodology shall be used to determine the extent and severity of aircraft noise problems in the vicinity of civil aviation airports, as well as the effectiveness of noise impact reduction options. The methodology consists of a series of subtasks, as described in the following subsections.

COMPATIBLE  MARGINALLY COMPATIBLE 

LAND USE	DAY-NIGHT AVERAGE SOUND LEVEL IN DECIBELS			
	50	60	70	80
Transient Lodging	Compatible	Compatible	Marginal	Compatible
Office Buildings, Personal, Business and Professional	Compatible	Compatible	Marginal	Compatible
Commercial-Retail, Movie Theaters, Restaurants	Compatible	Compatible	Marginal	Compatible
Commercial-Wholesale, Some Retail, Ind., Mfg., Utilities	Compatible	Compatible	Marginal	Compatible
Livestock Farming, Animal Breeding	Compatible	Compatible	Marginal	Compatible
Agriculture (Except Livestock), Mining, Fishing	Compatible	Compatible	Marginal	Compatible
Public Right-of-way	Compatible	Compatible	Marginal	Compatible

Source: Adapted by R. W. Young from Figure 2-15 of HUD Report TE/NA-472 November 1972 "Aircraft Noise Impact: Planning Guidelines for Local Agencies" by Wilsey & Ham and Bolt Beranek and Newman;

A. *Defining the study area.* The IAI methodology operates on two distinct data bases which are used to characterize (1) the population distributions and demographics in the vicinity of the airport and (2) the aircraft operations at the airport. Each of these data bases is used to determine a "noise picture" of the area around the airport, one for non-aviation sources and the other for aviation sources. A comparison of the two noise pictures leads to a determination of the noise impact of aviation sources, over and above non-aviation sources. Hence, it is desirable to define a study area which is large enough to permit the evaluation of all potentially feasible aviation noise reduction options while minimizing the need to continually acquire additional information for the population distribution and demographics data base. For this reason, the proprietor shall define a Gross Study Area which includes all land exposed to an Aircraft Day-Night Average Sound Level of 55 L_{dn} or greater. Said definition is to be made in terms of annual average, daily airport activity levels and mode of operation for the twelve (12) month period prior to the date of promulgation of this regulation, except where the designated 12-month period includes major disruptions to the normal operation and activity of the airport such as reduction of activity levels due to strikes or other abnormal service reductions or modifications such as those imposed by runways closings for resurfacing. Should the 12-month period prior to the date of promulgation of this regulation include such service abnormalities, the proprietor shall use data for the 12-month period prior to the beginning of the service abnormality. The 12-month period used to define the Gross Study Area is hereafter referred to as the Base Year.

For the Base Year, the proprietor shall acquire the aviation operations data necessary to develop a Gridpoint Array using an FAA approved L_{dn} computer program,¹ or its equivalent, or, for smaller airports, the manual technique presented in "Calculation of Day-Night Levels (L_{dn}) Resulting From Civil Aircraft Operations." Although the specific details of alternative equivalent L_{dn} calculation programs may require that data be put into specific formats, all such calculation programs require the same functional types of data which are as follows:

A map of the airport and its environs at a scale of 1 inch to 2000 feet indicating runway length, alignments, landing thresholds, takeoff start-of-roll points, airport boundary, and flight tracks out to at least 50,000 feet from the end of each runway.

Airport activity levels and operational data which will indicate, on an annual average daily basis, the number of aircraft, by type of aircraft, which utilize each flight track, in both the day (0700-2200 hrs.) and night (2200-0700 hrs.) periods for both landings and takeoffs.

For landings—glide slopes, glide slope intercept altitudes, and other pertinent information needed to establish approach profiles, i.e., the relationship altitude to distance to touch-down along with the engine power levels needed to fly that approach profile.

¹ Two computer programs are now in general use for L_{dn} calculations, the AMRL program was used in the development and testing of this regulation.

"Community Noise Exposure Resulting from Aircraft Operations: Computer Program Operator's Manual," AMRL TR 73-108, Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio, July 1975.

"Airport Noise Reduction Forecast, Volume II—NEF Computer Program Description and User's Manual," Department of Transportation, DOT-TST-75-4, October 1975.

For takeoffs—the flight profile which is the relationship of altitude to distance from start-of-roll along with the engine power levels needed to fly that takeoff profile; these data shall reflect the use of noise abatement departure procedures and the takeoff weight of the aircraft or some proxy for weight such as stage length.

Existing topographical or airspace restrictions which preclude the utilization of alternative flight tracks.

The Government furnished data depicting aircraft noise characteristics.

The Base Year airport activity and operations data and the aircraft noise emission characteristics, when processed by an approved L_{dn} calculation program or the referenced manual technique, will yield aircraft L_{dn} values in the vicinity of the airport in a geographical gridpoint array. The gridpoint array shall be at a scale of 1 inch to 2,000 feet with a uniform spacing of 1,000 feet between gridpoints. The gridpoint array is normally centered on the runway complex; however, for facilities which exhibit a preponderance of operations over specific area adjacent to the airport, the gridpoint array center should be translated toward that area in order to include all impacted areas while excluding areas over which there is minimal aircraft activity.

B. *Determining the gross study area boundary.* The gross study area boundary is that line which includes all land area exposed to 55 L_{dn} or greater due to aircraft operations. This boundary is determined by connecting the line of gridpoints which are nearest to 55 L_{dn} but which do not exceed 55 L_{dn} . The gross study area is then composed of all gridblocks which are intersected by or lie within the connecting line.

C. *Determining the locus and extent of authority.* The gross study area may fall completely within the boundary of a single political jurisdiction which has comprehensive land use planning and control authority or it may be composed of a variety of governmental entities. The airport proprietor shall identify and depict the geographic extent of each governmental entity which is either wholly or partially contained within the Gross Study Area and describe the land use planning and control authority available to each. The description of planning authority shall be of sufficient detail to distinguish between comprehensive or master planning authority and other types such as areawide, regional, special purpose.

An acceptable analysis of the types of land use control available to the impacted jurisdictions should include, but not be limited to, the following general categories of land use control:

- Acquisition and disposition of land;
- Regulatory (police) power;
- Capital Improvement programs;
- Monetary and fiscal policy; and
- Contractual agreements.

For prospective applications of local land use control authority, the airport proprietor shall indicate whether the specified authority is (1) as a matter of administrative discretion, (2) pursuant to the enactment of a local law, or (3) as requiring State enabling legislation.

D. *Estimating community background levels.* The community background level is the common logarithmic sum of the indigenous (self-generated) noise level and the contributions of other specific residential sources such as limited access highways which are within the gross study area. Background levels must be estimated in a manner which is methodologically compatible with the format of the aircraft noise analysis, i.e., background levels must be presented in L_{dn} at each gridpoint in the array which was defined for the aircraft noise analysis.

1. *Estimating indigenous levels.* Indigenous levels shall be estimated for all residentially developed areas within the gross study area. The data requirement for this task consist of (1) a base map of the area surrounding the airport to the same scale as the Aircraft Day-Night Average Sound Level Gridpoint Array (1 inch to 2000 feet), (2) up-to-date aerial photography of the area surrounding the airport, and (3) up-to-date census data and tract maps on population and housing for the gross study area. The selection of a 1 inch to 2,000 foot scale reflects the wide availability of U.S. Geodetic Survey (USGS) and Census maps which are produced in that scale. Aerial photography is not an absolute necessity for airports which are not located within built-up areas; in such cases an existing land use map or physical survey may be used. However, in built-up urban areas the use of aerial photography is advised to determine population densities and land use characteristics for given census tracts. These materials are basically all that are necessary to perform the indigenous noise estimation part of impact methodology. However, any additional material such as land use surveys and maps and population and housing surveys and analyses can be used as a supplement to the census information. Census tracts will vary considerably in size throughout urban and rural areas and any additional information on population and where it is actually within tract boundaries will enable more precise calculation of indigenous levels.

In order to estimate indigenous levels, the gross study area must be subdivided into study units which are areas of homogenous residential development. The following items constitute the basic criteria for study unit definition.

A study unit shall be residential development of homogenous density throughout. Residential development is categorized into three separate groups; single unit detached dwellings uniformly distributed, multi-family dwellings uniformly distributed, and a uniformly distributed mix of single and multi-family units.

The boundary of a study unit shall follow the physical boundary of a homogeneous development category.

The maximum geographical size of a study unit shall be the census tract boundaries in which the development category lies.

The minimum geographical area for a study unit of homogenous density in built up urban areas shall be 10 acres (built up is defined as development of homogeneous density which is surrounded by other land uses).

The maximum range of aircraft day-night average sound levels in a study unit shall not exceed 10 db.

Indigenous noise may be estimated as a function of population density for each study unit using the following equation:

$$L_{dn} = 10 \log p + 22$$

Where p = population density, people/square mile or p = Study unit population/study unit area in square miles, and the population may be computed by a physical inspection of the number of dwellings within a study unit and multiplying it by the average number of people per dwelling within the census tract which contains the study unit; if the study unit boundary and the census tract boundary are the same, total population may be directly determined from the census data.

The EPA has identified a minimum criteria level of 55 L_{dn} as being adequate to protect the public health and welfare with an adequate margin of safety and for those study units which due to sparse population do not exhibit an indigenous level of 55 L_{dn} , the estimated level is disregarded and 55 L_{dn} is assigned for the purposes of this study as the

indigenous level. This procedure applies to any area with a population density of less than 2,000 people per square mile.

2. *Noise from other sources.* The community background level is composed of indigenous noise and the noise contribution from other sources within the community such as freeways and industrial sites. Prediction of noise levels resulting from sources may be done on a site specific basis, based upon measured data and put into the L_{dn} gridpoint format according to the following formula:

$$L_{dn} = 10 \log 1/24 (15 \text{ antilog } L_{eq} \text{ day} + 9 \text{ antilog } (L_{eq} \text{ night} + 10))$$

where L_{eq} day and L_{eq} night are the equivalent average sound levels in the day and night periods, 0700-2200 hrs. and 2200 hrs. to 0700 hrs. respectively.

For arterials and freeways approaching design hour volumes, the following formula can be used:

$$L_{dn} = 30 - 30 \log D$$

where D is the distance from the near lane in miles and the equation does not reflect the influence of highway configuration or local topography.

Estimation of the contribution of other noise sources within the community is a potentially complex and time consuming effort. Thus, this methodology leaves that effort to the discretion of the proprietor and allows indigenous levels to be used in lieu of background levels. The use of indigenous levels in lieu of actual background levels yields an optimistic, i.e., low side, estimate of community levels without aircraft noise and hence provides a high side estimate of aircraft impact. Since the formulas specified above are not capable of reflecting the exact physical situation corresponding to specific unique sites, measured background noise levels may be substituted for calculated values when such measurements are available and the proprietor must substitute such measured values where he has reason to believe that the estimation technique yields highly inaccurate levels for a particular land area. Although such measured levels may be more accurate than estimated levels, it is EPA's judgment that the estimated values are generally accurate enough for the use to which they are put in this noise evaluation process—namely, to identify this priority areas for noise abatement and the relative effectiveness of abatement options. The estimation methods may be refined in time as more data become available.

3. *Background levels for undeveloped areas.* Undeveloped property which is within the gross study area must be viewed within the context of constituting a potential noise problem. Once land has been categorized as undeveloped but developable, a determination should be made of the principal permitted use under existing land use regulations. Such information may then be combined with the three development categories to define discrete study areas and assign "potential" population to appropriate gridblocks. This information will be of use in the evaluation of noise abatement options which may shift noise impact to such areas as well as aiding in the evaluation of land use control policies which may be used to preclude development in noise impacted areas. Potential noise impacts shall be evaluated for the time frame 10 years in the future, as required by this regulation.

4. *Determining incremental aircraft impact and noise units.* At this stage of the analysis, several data sets and displays have been produced:

A base map which shows airport configuration and flight tracks (1 inch to 2000 feet)

A gridpoint array of aircraft average day-night sound levels, with gridpoints every 1000

feet, presented at a scale of 1 inch to 2000 feet

A second map, also at 1 inch to 2000 feet which shows the study units, defined according to the criteria in Section B.1.

Indigenous sound levels for each study unit

Sound level contributions of other residential sources; this is optional and may be neglected at the discretion of the airport proprietor

The first step in the combination of the above listed materials to determine Incremental Aircraft Impact and Noise Units is to formulate Community Background Levels from Indigenous Levels and Other Residential Sources at each gridpoint.

The Community Background Level at a gridpoint is the common logarithmic sum of the Indigenous Level at that gridpoint and the contribution of Other Residential Sources at the same gridpoint. If the analyst elects to exclude Other Residential Sources, the Community Background Level at a gridpoint is identical to the Indigenous Level at that gridpoint.

The analyst now has a Community Background Level and an Aircraft Average Day-Night Level for each gridpoint in the airport vicinity.

For each study unit which contains two or more gridpoints, Community Background Level, referred to the study unit, is the arithmetic mean of all gridpoint Community Background Levels contained in the study unit. If the analyst has excluded the contribution of Other Residential Sources, the study unit Community Background Level is identical to the study unit Indigenous Level.

The study unit Aircraft Average Day-Night Level is determined by taking the arithmetic mean of all aircraft gridpoint levels within the boundary of the study unit. Where a small study unit does not have a gridpoint within its boundary, the aircraft gridpoint value at the gridpoint nearest to the study unit boundary is adopted as the study unit aircraft level.

For each study unit, the analyst now has developed a Community Background Level, an Aircraft Average Day-Night Level, and, from the earlier computation of indigenous noise, the study unit population.

The Total Noise Level for a study unit is the common logarithmic sum of the Community Background Level and the Aircraft Average Day-Night Level of the study unit.

The Incremental Aircraft Impact, in a study unit, is the positive arithmetic difference between the Total Noise Level and Community Background Level.

The Noise Units, in a study area, are determined by multiplying the Incremental Aircraft Impact in the study area by the residential population of the study area.

The step by step process described herein is summarized in the following example for a study unit:

$$\begin{aligned} LCB &= LI + LORS - \text{Logarithmic sum} \\ LT &= LCB + LA - \text{Logarithmic sum} \\ IAI &= LT - LA - \text{Arithmetic Difference} \\ NU &= IAI \times P - \text{Simple Multiplication} \end{aligned}$$

where LORS = Other Residential Sources Level, db

$$\begin{aligned} LI &= \text{Indigenous Level, db} \\ LCB &= \text{Community Background Level, db} \\ LA &= \text{Aircraft Level, db} \\ LT &= \text{Total Level, db} \\ IAI &= \text{Incremental Aircraft Impact, db} \\ P &= \text{Population} \\ NU &= \text{Noise Units} \end{aligned}$$

The information developed in the preceding series of steps should be retained in a tabular form, by study unit, since the later analysis of noise abatement options, leading to an Airport Noise Abatement Plan, will

compare future situations to the existing Base Year case. Further, while the total number of Noise Units around an airport is taken as the most aggregated metric for the severity of the noise impact situation, the less aggregated results, i.e., results by study area, are the most useful in actually determining the effectiveness of specific noise abatement options.

5. *Analysis of program alternatives.* The preceding section prescribes a methodology for the characterization and presentation of the aircraft noise impacts which result from an existing set of airport operating conditions and land development configurations. The objective of the Airport Noise Regulation is to reduce the existing noise impact problem and it is probable that the airport proprietor may find it necessary to consider a fairly large number of abatement strategies comprised of different combination of options in order to demonstrate that his noise abatement plan is optimal. Noise abatement options should be considered and presented according to the following categorization:

Noise abatement options for which the airport proprietor has adequate implementation authority.

Noise abatement options for which the requisite implementation authority is vested in a local agency, governing body, or state agency or governing body.

Noise abatement options for which requisite authority is vested in an agency of the Federal Government.

The minimization of Base Year Noise Units can be achieved through actions considered discretionary to the Federal Aviation Administration or the airport proprietor or pursuant to FAA approval or discretionary to State or local governing bodies. At a minimum, the proprietor should analyze the following options, subject to the constraint that the option is appropriate to the specific airport, i.e., evaluation of night curfews is inappropriate if there are no night flights. Even though the airport proprietor responsible for the plan cannot require the FAA or State or local governing bodies to take certain actions which might have a positive noise abatement benefit for the airport, the proprietor must analyze and make available for review the effect which such actions would have on the noise impact from the airport. At a minimum, the following options should be analyzed and displayed.

1. Takeoff and landing noise abatement procedures for aircraft.
2. Limitations on the use of aircraft which do not meet the certification noise limits of Federal Aviation Regulation Part 36.
3. Noise abatement preferential runway systems.
4. Glide slopes and glide slope intersections for landing configuration.
5. Flight tracks.
6. Approach paths.
7. Landing paths.
8. Limitations on the class of aircraft using the airport.
9. Shifting aircraft to neighboring airports.
10. Location of run-up areas.
11. Operational limitations/curfews.
12. Priority landing directions for all aircraft.
13. Landing fees based on performance specifications.
14. Landing fees based on noise emission characteristics.
15. Compatible use of impacted land.
16. Other actions which would have a beneficial impact on public health and welfare.
17. Other actions recommended for analysis by the FAA or EPA for the specific airport.

The set of noise abatement options and strategies which will meet or exceed the health and welfare standard of the regula-

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tion shall be presented to the public as a proposed noise abatement plan, subjected to area-wide public hearings and delivered to the Administrator of the FAA. Such plans must include the following:

The impact of current operations on the surrounding community.

The effect of the proposed plan on reducing noise impact in the surrounding community for time frames of two (2) and five (5), and ten (10) years from the date of submission, given reasonable assumptions

concerning the future operations at the airport and projected population changes in the community.

The relative contribution of each of the proposed options to the overall effectiveness of the plan.

Land use alternatives available to local and State authorities.

A schedule for implementation of the proposed noise abatement plan.

The FAA has not received from the Environmental Protection Agency an in-

flationary impact assessment for the recommended regulation set forth in this notice.

Issued in Washington, D.C., on November 12, 1976.

CHARLES R. FOSTER,
*Director of
Environmental Quality.*

[FR Doc.76-34133 Filed 11-19-76; 8:45 am]

APPENDIX B

SELECTED PORTIONS OF PART 77
OBJECTS AFFECTING NAVIGABLE AIRSPACE
(Military Airports and Heliports Omitted)

The federal definitions of imaginary surfaces from Federal Aviation Administration Regulations Part 77 gives further details regarding objects which are considered "obstructions" and those which are not.

Part 77—Objects Affecting Navigable Airspace

Subpart A—General

§ 77.1 Scope.

This Part—

- (a) Establishes standards for determining obstructions in navigable airspace;
- (b) Sets forth the requirements for notice to the Administrator of certain proposed construction or alteration;
- (c) Provides for aeronautical studies of obstructions to air navigation, to determine their effect on the safe and efficient use of airspace;
- (d) Provides for public hearings on the hazardous effect of proposed construction or alteration on air navigation; and
- (e) Provides for establishing antenna farm areas.

§ 77.2 Definition of terms.

For the purpose of this Part:

“Airport available for public use” means an airport that is open to the general public with or without a prior request to use the airport.

“A seaplane base” is considered to be an airport only if its sea lanes are outlined by visual markers.

“Nonprecision instrument runway” means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in nonprecision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

“Precision instrument runway” means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system

is planned and is so indicated by an FAA approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

“Utility runway” means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

“Visual runway” means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

§ 77.3 Standards.

(a) The standards established in this Part for determining obstructions to air navigation are used by the Administrator in—

(1) Administering the Federal-aid Airport Program and the Surplus Airport Program;

(2) Transferring property of the United States under Section 16 of the Federal Airport Act;

(3) Developing technical standards and guidance in the design and construction of airports; and

(4) Imposing requirements for public notice of the construction or alteration of any structure where notice will promote air safety.

(b) The standards used by the Administrator in the establishment of flight procedures and aircraft operational limitations are not set forth in this Part but are contained in other publications of the Administrator.

§ 77.5 Kinds of objects affected.

This Part applies to—

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, and apparatus of a permanent or temporary character; and

(b) Alteration of any permanent or temporary existing structure by a change in its height (including appurtenances), or lateral dimensions, including equipment or materials used therein.

Subpart B—Notice of Construction or Alteration

§ 77.11 Scope.

(a) This subpart requires each person proposing any kind of construction or alteration described in § 77.13(a) of this chapter to give adequate notice to the Administrator. It specifies the locations and dimensions of the construction or alteration for which notice is required and prescribes the form and manner of the notice. It also requires supplemental notices 48 hours before the start and upon the completion of certain construction or alteration that was the subject of a notice under § 77.13(a).

(b) Notices received under this subpart provide a basis for—

(1) Evaluating the effect of the construction or alteration on operational procedures and proposed operational procedures;

(2) Determinations of the possible hazardous effect of the proposed construction or alteration on air navigation;

(3) Recommendations for identifying the construction or alteration in accordance with the current Federal Aviation Administration Advisory Circular AC 70/7460-1 entitled "Obstruction Marking and Lighting," which is available without charge from the Department of Transportation, Distribution Unit, TAD 484.3, Washington, D.C. 20590;

(4) Determining other appropriate measures to be applied for continued safety of air navigation; and

(5) Charting and other notification to airmen of the construction or alteration.

§ 77.13 Construction or alteration requiring notice.

(a) Except as provided in § 77.15, each sponsor who proposes any of the following construction or alteration shall notify the Administrator in the form and manner prescribed in § 77.17:

(1) Any construction or alteration of more than 200 feet in height above the ground level at its site.

(2) Any construction or alteration of greater height than an imaginary surface extending outward and upward at one of the following slopes:

(i) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport specified in subparagraph (5) of this paragraph with at least one runway more than 3,200 feet in actual length, excluding heliports.

(ii) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport specified in subparagraph (5) of this paragraph with its longest runway no more than 3,200 feet in actual length, excluding heliports.

(iii) 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport specified in subparagraph (5) of this paragraph.

(3) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally

traverse it, would exceed a standard of subparagraph (1) or (2) of this paragraph.

(4) When requested by the FAA, any construction or alteration that would be in an instrument approach area (defined in the FAA standards governing instrument approach procedures) and available information indicates it might exceed a standard of Subpart C of this part.

(5) Any construction or alteration on any of the following airports (including heliports):

(i) An airport that is available for public use and is listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement.

(ii) An airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and except for military airports, it is clearly indicated that that airport will be available for public use.

(iii) An airport that is operated by an armed force of the United States.

(b) Each sponsor who proposes construction or alteration that is the subject of a notice under paragraph (a) of this section and is advised by an FAA regional office that a supplemental notice is required shall submit that notice on a prescribed form to be received by the FAA regional office at least 48 hours before the start of the construction or alteration.

(c) Each sponsor who undertakes construction or alteration that is the subject of a notice under paragraph (a) of this section shall, within 5 days after that construction or alteration reaches its greatest height, submit a supplemental notice on a prescribed form to the FAA regional office having jurisdiction over the area involved, if—

(1) The construction or alteration is more than 200 feet above the surface level of its site; or

(2) An FAA regional office advises him that submission of the form is required.

§ 77.15 Construction or alteration not requiring notice.

No person is required to notify the Administrator for any of the following construction or alteration:

(a) Any object that would be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town, or settlement where it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation.

(b) Any antenna structure of 20 feet or less in height except one that would increase the height of another antenna structure.

(c) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device, of a type approved by the Administrator, or an appropriate military service on military airports, the location and height of which is fixed by its functional purpose.

(d) Any construction or alteration for which notice is required by any other FAA regulation.

§ 77.17 Form and time of notice.

(a) Each person who is required to notify the Administrator under § 77.13(a) shall send one executed form set (four copies) of FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Chief, Air Traffic Division, FAA Regional Office having jurisdiction over the area within which the construction or alteration will be located. Copies of FAA Form 7460-1 may be obtained from the headquarters of the Federal Aviation Administration and the regional offices.

(b) The notice required under § 77.13(a) (1) through (4) must be submitted at least 30 days before the earlier of the following dates—

(1) The date the proposed construction or alteration is to begin.

(2) The date an application for a construction permit is to be filed.

However, a notice relating to proposed construction or alteration that is subject to the licensing requirements of the Federal Communications Act may be sent to the FAA at the same time the application for construction is filed with the Federal Communications Commission, or at any time before that filing.

(c) A proposed structure or an alteration to an existing structure that exceeds 2,000 feet in height above the ground will be presumed to be a hazard to air navigation and to result in an inefficient utilization of airspace and the applicant has the burden of overcoming that presumption. Each notice submitted under the pertinent provisions of Part 77 proposing a structure in excess of 2,000 feet aboveground, or an alteration that will make an existing structure exceed that height, must contain a detailed showing, directed to meeting this burden. Only in exceptional cases, where the FAA concludes that a clear and compelling showing has been made that it would not result in an inefficient utilization of the airspace and would not result in a hazard to air navigation, will a determination of no hazard be issued.

(d) In the case of an emergency involving essential public services, public health, or public safety, that requires immediate construction or alteration, the 30-day requirement in paragraph (b) of this section does not apply and the notice may be sent by telephone, telegraph, or other expeditious means, with an executed FAA Form 7460-1 submitted within five days thereafter. Outside normal business hours, emergency notices by telephone or telegraph may be submitted to the nearest FAA Flight Service Station.

(e) Each person who is required to notify the Administrator by paragraph (b) or (c) of § 77.13, or both, shall send an executed copy of FAA Form 117-1, Notice of Progress of Construction or Alteration, to the Chief, Air Traffic Division, FAA Regional Office having jurisdiction over the area involved.

§ 77.19 Acknowledgment of notice.

(a) The FAA acknowledges in writing the receipt of each notice submitted under § 77.13 (a).

(b) If the construction or alteration proposed in a notice is one for which lighting or marking standards are prescribed in the FAA Advisory Circular AC 70/7460-1 entitled "Obstruction Marking and Lighting," the acknowledgment contains a statement to that effect and information on how the structure should be marked and lighted in accordance with the Advisory Circular.

(c) The acknowledgment states that an aeronautical study of the proposed construction or alteration has resulted in a determination that the construction or alteration—

(1) Would not exceed any standard of Subpart C and would not be a hazard to air navigation;

(2) Would exceed a standard of Subpart C but would not be a hazard to air navigation; or

(3) Would exceed a standard of Subpart C and further aeronautical study is necessary to determine whether it would be a hazard to air navigation, that the sponsor may request within 30 days that further study, and that, pending completion of any further study, it is presumed the construction or alteration would be a hazard to air navigation.

Subpart C—Obstruction Standards

§ 77.21 Scope.

(a) This subpart establishes standards for determining obstructions to air navigation. It applies to existing and proposed manmade objects, objects of natural growth, and terrain. The standards apply to the use of navigable airspace by aircraft and to existing air navigation facilities, such as an air navigation aid, airport, Federal airway, instrument approach or departure procedure, or approved off-airway route. Additionally, they apply to a planned facility or use, or a change in an existing facility or use, if a proposal therefor is on file with the Federal Aviation Administration or an appropriate military service on the date the notice required by § 77.13(a) is filed.

(b) At those airports having defined runways with specially prepared hard surfaces, the primary surface for each such runway extends 200 feet beyond each end of the runway. At those airports having defined strips or pathways that are used regularly for the taking off and landing of aircraft and have been designated by appropriate authority as runways, but do not have specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At those airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for the landing and taking off of aircraft, a determination shall be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those pathways so determined shall be considered runways and an appropriate primary surface as defined in § 77.25(c) will be considered as being longitudinally centered on each runway so determined, and each end of that primary surface shall coincide with the corresponding end of that runway.

(c) The standards in this subpart apply to the effect of construction or alteration proposals upon an airport if, at the time of filing of the notice required by § 77.13(a), that airport is—

(1) Available for public use and is listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement; or,

(2) A planned or proposed airport or an airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and, except for military airports, it is clearly indicated that that airport will be available for public use; or,

(3) An airport that is operated by an armed force of the United States.

(d) [Deleted]

§ 77.23 Standards for determining obstructions.

(a) An existing object, including a mobile object, is, and a future object would be, an

obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 500 feet above ground level at the site of the object.

(2) A height that is 200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile of distance from the airport up to a maximum of 500 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under §§ 77.25, 77.28, or 77.29. However, no part of the takeoff or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service, furnished by an air traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) Seventeen feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) Fifteen feet for any other public roadway.

(3) Ten feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) Twenty-three feet for a railroad.

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

§ 77.25 Civil airport imaginary surfaces.

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach existing or planned for that runway end.

(a) Horizontal surface—a horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways.

The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) Conical surface—a surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(c) Primary surface—a surface longitudinally centered on a runway. When the runway has a specially prepared hard surface,

the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, or planned hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of a primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having nonprecision instrument approaches.

(3) For other than utility runways the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for nonprecision instrument runways having visibility minimums greater than three-fourths statute mile.

(iii) 1,000 feet for a nonprecision instrument runway having a nonprecision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.

The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) Approach surface—a surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a nonprecision instrument approach;

(iv) 3,500 feet for that end of a non-precision instrument runway other than utility, having visibility minimums greater than three-fourths of a statute mile;

(v) 4,000 feet for that end of a non-precision instrument runway, other than utility, having a nonprecision instrument approach with visibility minimums as low as three-fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to 1 for all nonprecision instrument runways other than utility; and,

(iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) Transitional surface—these surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

Subpart F—Establishment of Antenna Farm Areas

§ 77.71 Scope.

(a) This subpart establishes antenna farm areas in which antenna structures may be grouped to localize their effect on the use of navigable airspace.

(b) It is the policy of the FAA to encourage the use of antenna farms and the single structure-multiple antenna concept for radio and television towers whenever possible. In considering proposals for establishing antenna farm areas, it considers as far as possible the revision of aeronautical procedures and operations to accommodate antenna structures that will fulfill broadcasting requirements.

§ 77.73 General provisions.

(a) An antenna farm area consists of a specified geographical location with established dimensions of area and height, where antenna towers with a common impact on aviation may be grouped. Each such area is established by appropriate rule-making action.

(b) Each proposal for an antenna farm area is evaluated on the basis of its effect on the use of navigable airspace. The views of the Federal Communications Commission are requested on the effect that each establishment of an antenna farm area would have on its statutory responsibilities. Any views submitted by it are fully considered before the antenna farm concerned is established. If the Commission advises that the establishment of any proposed antenna farm area would interfere with its statutory responsibility, the proposed area is not established.

(c) The establishment of an antenna farm area is considered whenever it is proposed by—

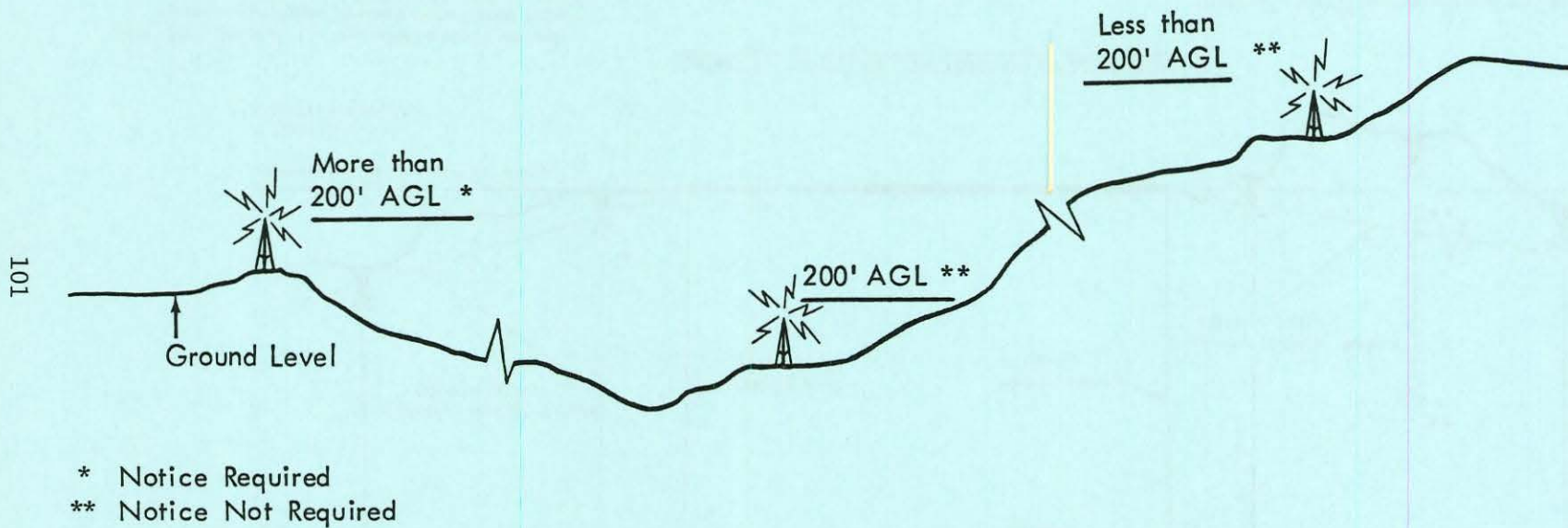
- (1) The FAA;
- (2) The Federal Communications Commission;
- (3) The sponsor of a proposed antenna tower; or
- (4) Any other person having a substantial interest in a proposed antenna tower.

§ 77.75 Establishment of antenna farm areas.

The airspace areas described in the following sections of this subpart are established as antenna farm areas.

[Note: §§ 77.77 through 77.1100 reserved for descriptions of antenna farm areas]

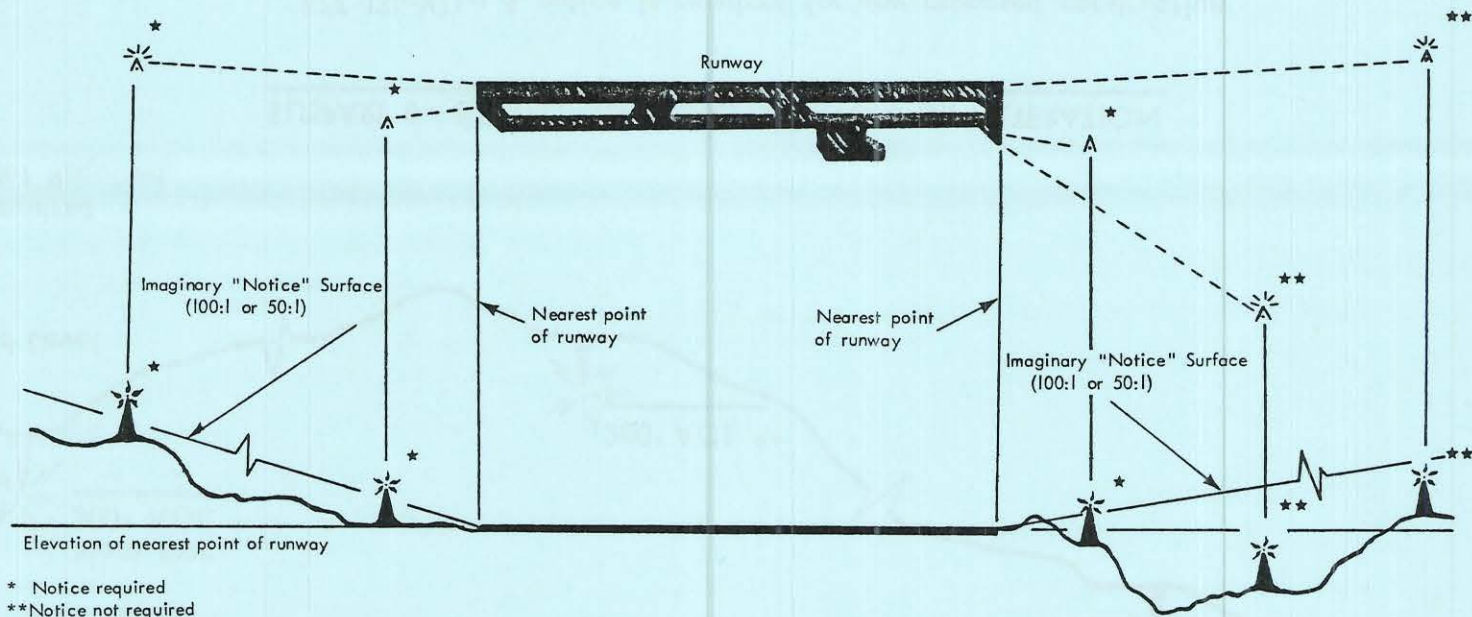
§77.13(a)(1) - Notice Requirement Anywhere



SUBPART B - NOTICE OF CONSTRUCTION OR ALTERATION

§77.13(a)(1) - A notice is required for any proposed construction or alteration that would be more than 200 feet in height above the ground level at its site.

§ 77.13(a)(2) - NOTICE REQUIREMENT RELATED TO AIRPORTS



OBJECTS AFFECTING NAVIGABLE AIRSPACE

PART 77

Note: Each airport must be available for public use and listed in the Airport Directory of the current Airman's Information Manual, or in either the Alaska or Pacific Airman's Guide and Chart Supplement; under construction and the subject of a notice or proposal on file with FAA, and except for Military airports, it is clearly indicated that that airport will be available for public use, or operated by an armed force of the United States. (Heliports and seaplane bases without specified boundaries are excluded.)

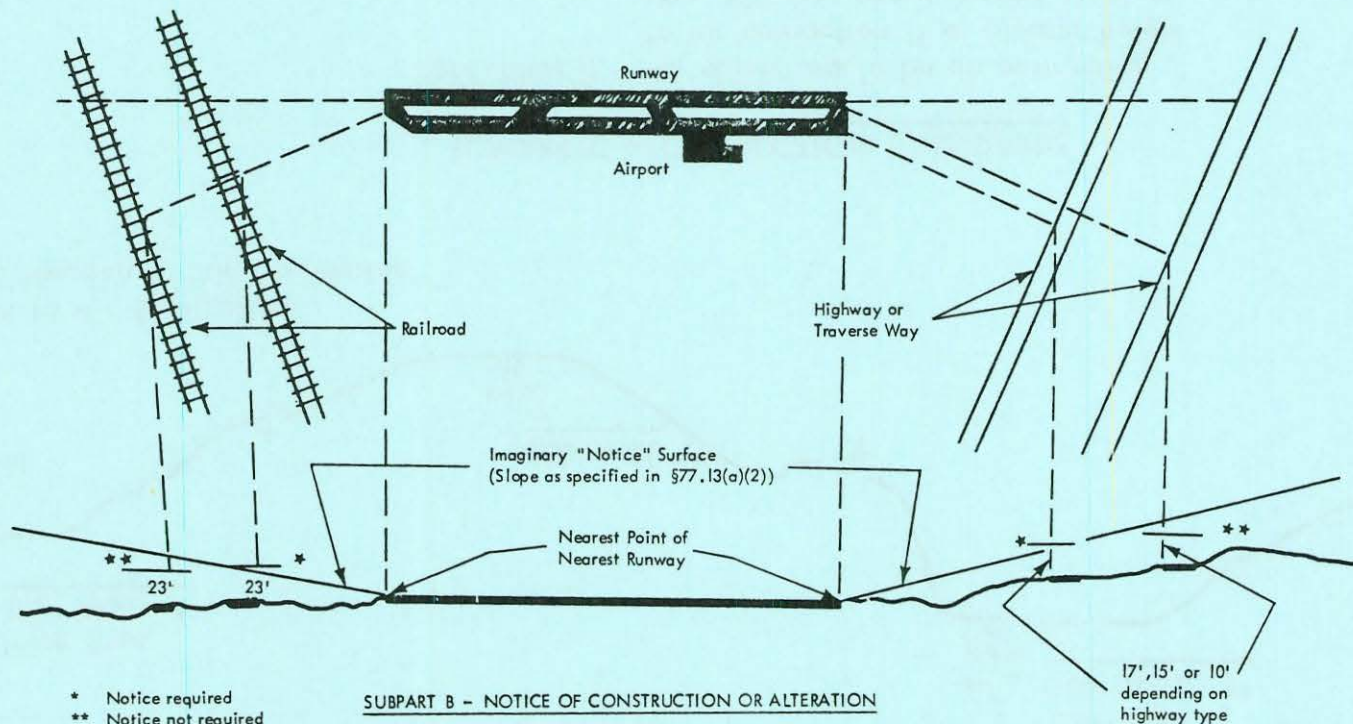
SUBPART B - NOTICE OF CONSTRUCTION OR ALTERATION

§77.13(a)(2) - A notice is required for any proposed construction or alteration that would be of greater height than an imaginary surface extending outward and upward at one of the following slopes -

- (i) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport with at least one runway more than 3,200 feet in actual length.
- (ii) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport with its longest runway no more than 3,200 feet in actual length.

(Note: §77.13(a)(5) requires notice of any proposed construction or alteration on each airport, including heliports)

§ 77.13(a)(3) - NOTICE REQUIREMENT RELATED TO TRAVERSE WAYS



- * Notice required
- ** Notice not required

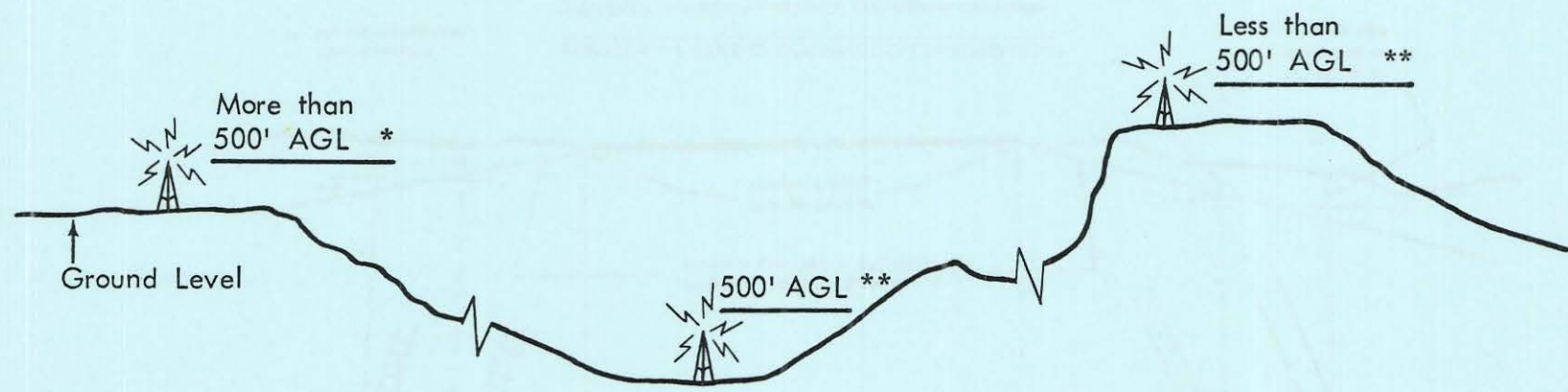
SUBPART B - NOTICE OF CONSTRUCTION OR ALTERATION

§77.13(a)(3) - Notice is required for any proposed construction or alteration of any highway, railroad, or other traverse way for mobile objects if of greater height than the standards of §77.13(a)(1) or (2) after their height has been adjusted upward by one of the following:

- 17 feet for an Interstate highway that is part of the National System of Military and Interstate Highways,
- 15 feet for any other public roadway
- 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road,
- 23 feet for a railroad

For a waterway or any other traverse way, an amount equal to the height of the highest mobile object that would normally use it.

§77.23(a)(1) - Anywhere



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- * Obstruction to Air Navigation
- ** Not an Obstruction to Air Navigation

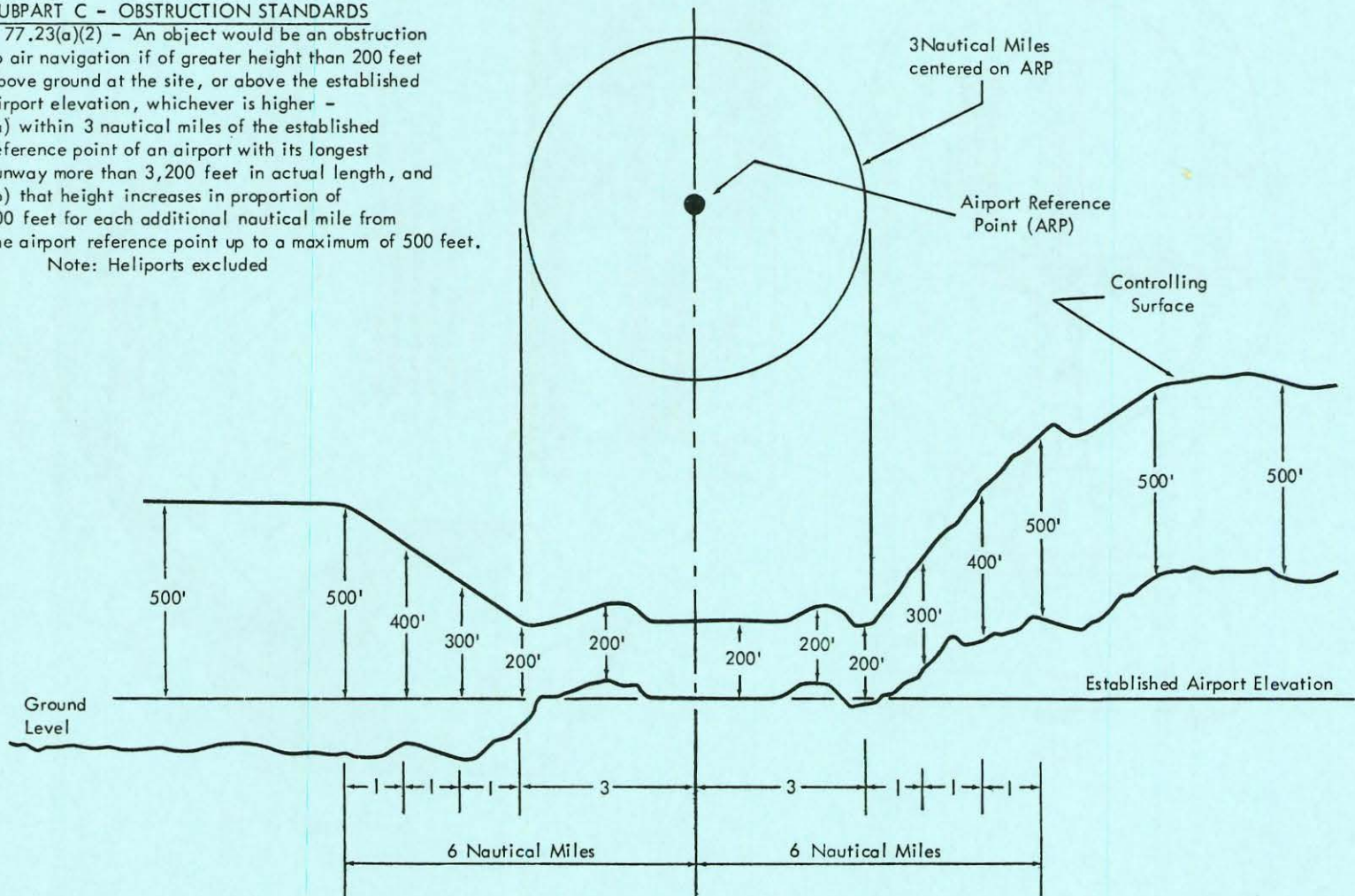
SUBPART C - OBSTRUCTION STANDARDS

§77.23(a)(1) - An object would be an obstruction to air navigation if of greater height than 500 feet above ground level at its site.

§ 77.23(a)(2) - NEAR AIRPORTS

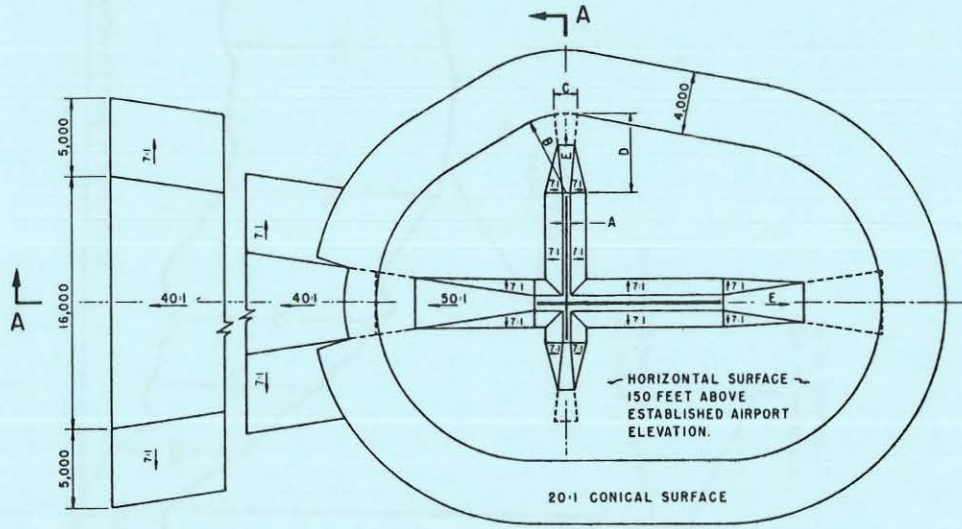
SUBPART C - OBSTRUCTION STANDARDS

§ 77.23(a)(2) - An object would be an obstruction to air navigation if of greater height than 200 feet above ground at the site, or above the established airport elevation, whichever is higher -
 (a) within 3 nautical miles of the established reference point of an airport with its longest runway more than 3,200 feet in actual length, and
 (b) that height increases in proportion of 100 feet for each additional nautical mile from the airport reference point up to a maximum of 500 feet.
 Note: Heliports excluded



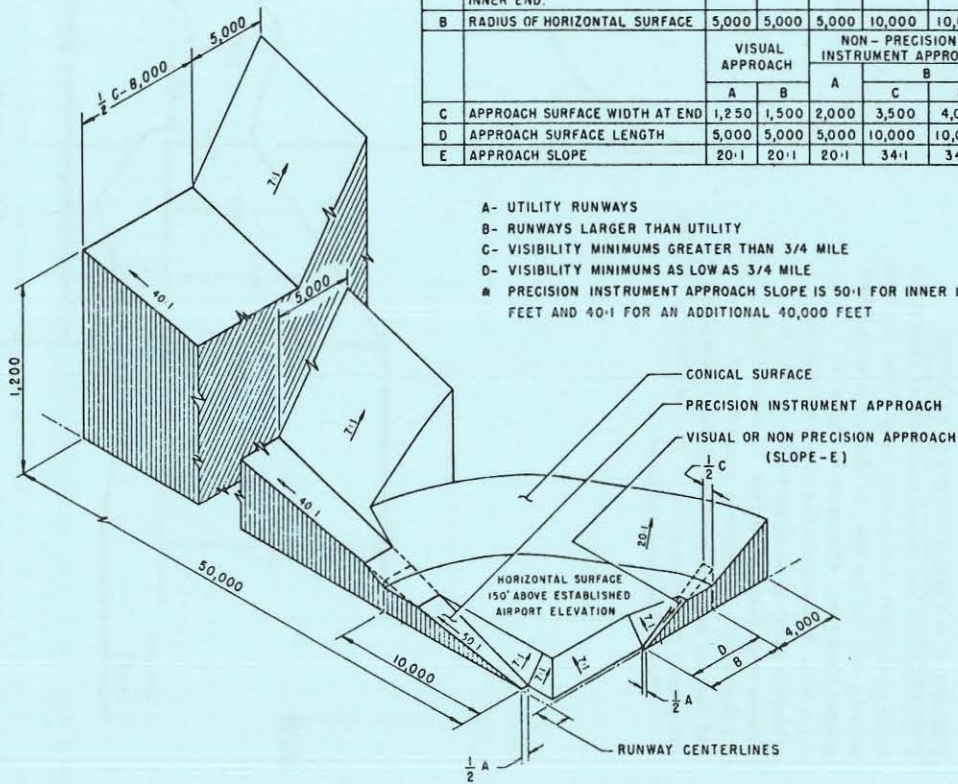
OBJECTS AFFECTING NAVIGABLE AIRSPACE

PART 77



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END.	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B		
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

- A- UTILITY RUNWAYS
- B- RUNWAYS LARGER THAN UTILITY
- C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
- D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
- * PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

APPENDIX C

CONVERSION TABLE FOR NEF, CNR, L_{dn}

NEF-USA	CNR-USA	L _{dn}
<p>45</p> <p>Serious Noise Problems Are Likely. No Activity, Nor Building Construction of Any Sort Should Be Carried on Without a Complete Analysis of the Situation.</p>	<p>120</p> <p>Individual Reactions Would Likely Include Repeated, Vigorous Complaints. Concerted Group Action Might Be Expected.</p>	<p>80</p>
<p>40</p> <p>Individual Reaction May Include Vigorous Repeated Complaints and Concerted Group Action Is Also a Possibility. Construction of Homes, Schools, Churches, etc., Should Not Be Undertaken Without a Complete Analysis of the Situation.</p> <p>35</p>	<p>115</p> <p>Individuals May Complain Perhaps Vigorously, Concerted Group Action Is Possible.</p> <p>110</p>	<p>75</p> <p>70</p>
<p>30</p> <p>Some Noise Complaints Are Possible and Noise May Interfere With Some Activities.</p> <p>25</p>	<p>100</p> <p>Essentially No Complaints Would Be Expected. The Noise May, However, Interfere Occasionally With Certain Activities of the Residents.</p> <p>95</p> <p>90</p>	<p>65</p> <p>60</p>
<p>20</p> <p>15</p>	<p>85</p> <p>80</p>	<p>55</p> <p>50</p>

APPROXIMATE EQUIVALENCES BETWEEN NOISE EXPOSURE INDICES

APPENDIX D

NOISE EXPOSURE MEASURE EQUATIONS

An excerpt from Developing Noise Exposure Contours for General Aviation Airports, developed by Bolt, Beranek and Newman for the Federal Aviation Administration.

NOISE EXPOSURE MEASURE EQUATIONS

In study of airport and aircraft noise, two different types of noise measures are needed -- one to measure the noise of *individual noise events*, such as the noise signal of an aircraft flyover, and another to describe the *noise environment* resulting from a complex of noise events, such as the noise exposure due to aircraft operations at an airport. The *noise exposure* measures considered in this report provide a description of the noise environment that is necessarily based upon noise descriptions of individual noise events, such as aircraft take-offs or landings. Each of the noise exposure measures (CNR, NEF and LDN) utilize different measures to describe the noise of individual aircraft events. The relationship between the measures of noise events, and noise exposure is summarized in Figure 2-1.

Because of differences in the basic noise measures employed, there *will not* be an exact correlation between CNR, NEF and LDN values at different positions about an airport, or for operations of different aircraft. While there are "rules of thumb" to relate the different measures, these "rules" are approximations, subject to sometimes considerable variation for individual situations.

A. Noise Exposure Equations

1. Composite Noise Rating (CNR)

The composite rating is a measure of the noise environment over a 24-hour period produced by aircraft operations. The CNR is calculated from aircraft noise expressed in terms of the maximum perceived noise level (PNL) and the number of operations in daytime and nighttime periods. The weighting for night operations is the same as employed in NEF calculations. For the contours given in this report, the relationship between PNL and CNR for aircraft *i* along flight path *j* is:

$$\text{CNR}(ij) = \text{PNL}(ij) + 10 \log \left(N_D(ij) + 16.67 N_N(ij) \right) - 13$$

where $N_D(ij)$ = number of daytime movements of aircraft type *i* along flight path *j*

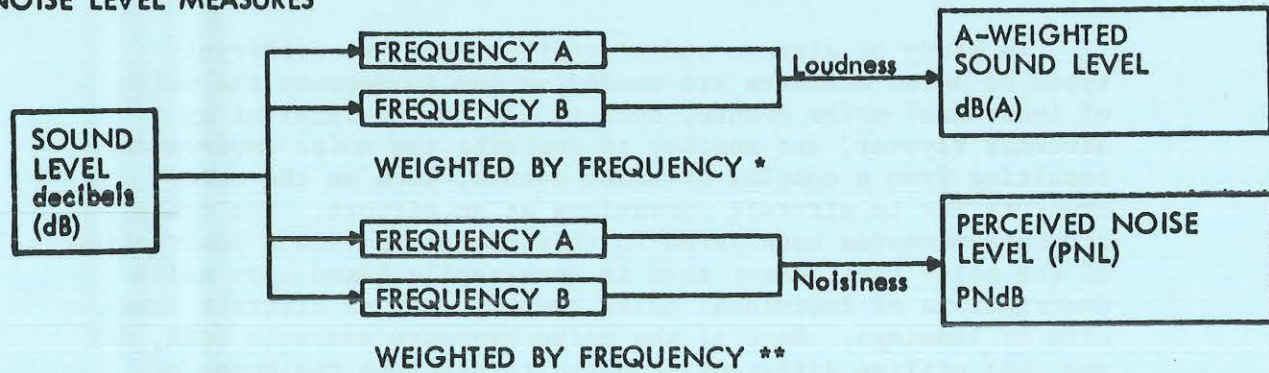
$N_N(ij)$ = number of nighttime movements of aircraft type *i* along flight path *j*.

The total CNR is the summation of all partial CNR values:

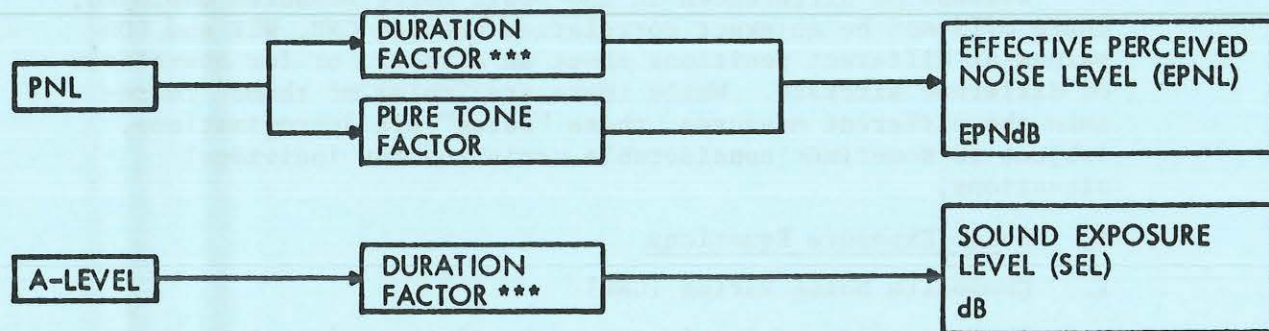
$$\text{CNR} = 10 \log \sum_{ij} 10^{\left(\frac{\text{CNR}(ij)}{10} \right)}$$

The desk calculation methods of Reference 1 approximate the above expressions by employing 5 dB step adjustments to sets of standardized perceived noise level contours. In contrast, the

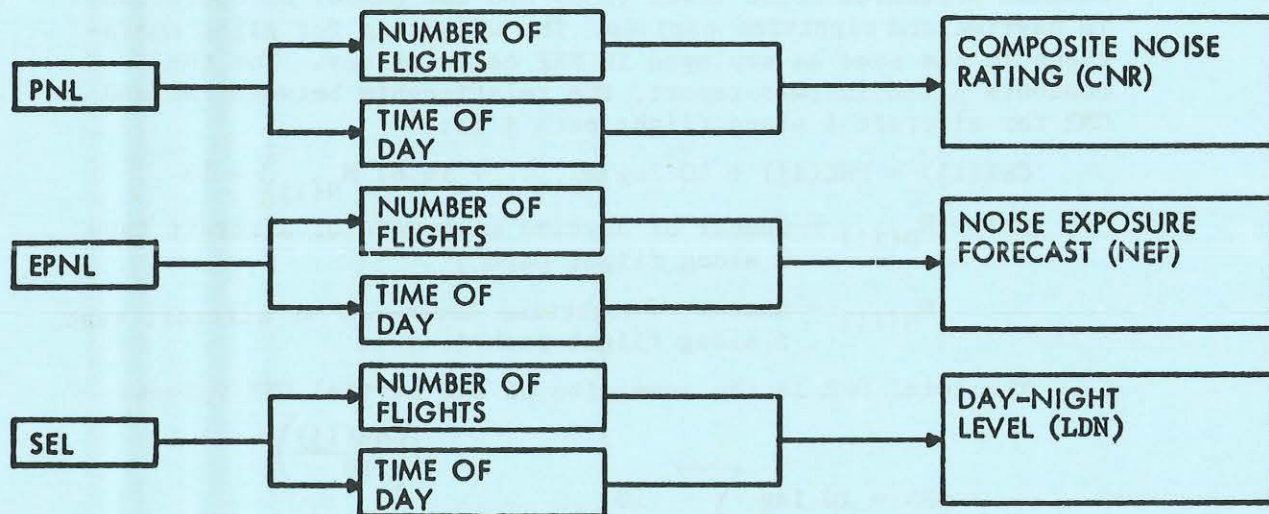
NOISE LEVEL MEASURES



NOISE EVENT MEASURES



NOISE ENVIRONMENT MEASURES



* A simple frequency equalization network
 ** Analysis in 1/3 or full octave frequency bands

*** Time-integration of signal

FIGURE 2-1 COMPARISON OF AIRCRAFT NOISE MEASURES

CNR contours given in this report reflect continuous "smooth" adjustments for the number of operations and for adding the contribution from different aircraft and different flight paths.

As noted in Figure 2-1, the perceived noise level used in the CNR calculations is based upon the maximum level of an event. Hence, the PNL values will decrease with distance at a greater rate than will the noise measures employed in NEF and LDN calculations.

2. Noise Exposure Forecast (NEF)

The noise exposure forecast is a measure of the noise environment over a 24-hour period. It is based upon summation of individual noise events over the 24-hour period, with adjustments applied for nighttime noises. The effective perceived noise level (EPNL) is the noise event measure. The nighttime adjustment differs from that used in calculation of LDN. The NEF values are calculated from the following relationships:

$$NEF(ij) - EPNL(ij) = 10 \log \left(N_{D(ij)} + 16.67 N_{N(ij)} \right) - 88$$

and

$$NEF = 10 \log \sum_{ij} 10^{\left(\frac{NEF(ij)}{10} \right)}$$

3. Day-Night Sound Level (LDN)

The day-night sound level is a measure of the noise environment at a prescribed point over a 24-hour period. It is the 24-hour A-weighted equivalent level, with a 10 dB weighting applied to the nighttime levels. The working expressions are:

$$LDN(ij) = SEL(ij) = 10 \log \left(N_{D(ij)} + 10 N_{N(ij)} \right) - 49.4$$

and

$$LDN = 10 \log \sum_{ij} 10^{\left(\frac{LDN(ij)}{10} \right)}$$

APPENDIX E

OPTIONS FOR REDUCING AIRPORT/COMMUNITY CONFLICT

The following is a reprint of the contents of the strategy matrix in Chapter 3 of Aircraft Noise Impact: Planning Guidelines for Local Agencies produced by the U. S. Department of Housing and Urban Development in November, 1972. It is a comprehensive listing of strategies to abate noise problems--the options are greater for noise abatement than for safety problems because it is easier to abate noise at its source than to abate safety problems around an airport by control of the source. This list consequently covers the majority of strategies possible to effect increased safety in addition to its intended use for noise control.

For detail of each strategy, Chapter 3 of the publication should be consulted.

"3. OPTIONS FOR REDUCING NOISE CONFLICTS

Section 2 of HUD's report outlined a means of describing the aircraft noise environment in a way that makes it possible to determine where conflicts between airport noise and surrounding activities exist. Section 3 describes a number of alternative means for reducing these noise conflicts. Section 4 describes ways of relating these noise abatement alternatives together in developing a comprehensive planning program for aircraft noise abatement.

Table 3-1 outlines the noise abatement strategies discussed in the remainder of Section 3.

Strategies are grouped by their point of application: Source, Path, Received, and Feedback and Control. The fourth group is something of a catch-all and includes various means of coordinating noise abatement as a problem with the entire system rather than a problem of compatible land uses, airport location, or aircraft. Coordinating mechanisms can be formal or informal: control need not be vested in an individual or group but in some cases may be best achieved by 'greasing the wheels' of the entire system so it is self-regulating.

Table 3-2 is a summary of the noise abatement strategies discussed, and gives a brief description of the effectiveness, costs, and limitations of each strategy."

TABLE 3-1

OUTLINE OF NOISE ABATEMENT STRATEGIES

- I. Noise Source
 - A. Aircraft Operational Changes
 - 1. Approach Operating Changes
 - a. Higher holding and maneuver altitudes
 - b. Steeper glide slopes
 - c. Two-segment approach
 - d. Delayed flap and gear extension
 - e. Combined techniques
 - 2. Takeoff operating changes
 - 3. Takeoff and approach route changes
 - a. Preferential runways
 - b. Runway threshold shifts
 - c. Concentration or dispersion in corridors
 - d. Relocation of corridors
 - 4. Schedule restrictions
 - 5. Aircraft type restrictions
 - 6. Regulation of ground operations
 - B. Engine/Airframe technology changes
 - 1. Engine technology
 - 2. Airframe technology
 - C. Airport location and utilization changes
 - 1. Traffic allocation among airports or aircraft
 - 2. Construction of new airports
 - 3. Abandonment of existing airports
 - D. Airport design
 - 1. Runway length and direction
 - 2. Location of maintenance areas
 - 3. Size of site
 - 4. Management of airport property
 - E. Air Traffic demand changes
 - 1. Aircraft type mix
 - 2. Alternate modes of transportation
 - 3. Communication, other technologies
- II. Noise Path Changes

III. Noise Receiver Changes

A. Receiver Location Changes

1. Encouraging compatible development
 - a. Public acquisition
 - b. Market Service
 - c. Acquisition for public use
2. Relocation of incompatible use
 - a. Public acquisition for redevelopment
 - b. Market Service for relocation
3. Prohibiting incompatible use
 - a. Zoning
 - b. Subdivision regulation
 - c. Public services planning
 - d. Advance land acquisition

B. Receiver Sensitivity Changes

1. Insulation of structures
 - a. Building codes
 - b. Housing codes
 - c. Public insulation programs
2. Sound masking
3. Public relations

IV. Feedback and Control Mechanisms

A. Planning

1. Planning by local government and airport authority
2. Public hearings
3. Citizen involvement

B. Compensation

1. Easements
2. Tax credits

C. Legal and administrative devices

1. Existing legal channels
2. Regulation of noise sources
3. Establishment of responsibility and payment mechanisms
4. Information systems monitoring
5. Alternative airport decision structures

D. Market devices

1. Economic incentives for noise reduction
2. Market service to cities, developers and individuals

TABLE 3-2
NOISE ABATEMENT STRATEGIES:
COSTS, EFFECTIVENESS, OTHER CONSIDERATIONS

Noise Abatement Strategy	Noise reduction ¹	Costs	Limitations, Comments, other considerations
Higher holding and maneuver altitudes, raise glide slope intercept altitude	About 9 EPNdB with increase from 1500' to 3000'. Primary benefit 2-4 miles from threshold.	ATC workload	In use at some airports. FAA policy "keep 'em high". Doesn't help in highest noise areas. No equipment change.
Steeper glide slope	0-10 EPNdB, greater with greater distance from threshold. (higher altitude, reduced power)	Pilot workload Safety	Some gains available from enforcing existing minimum glide slope. Reduce fear of low-flying aircraft.
Two-segment approach. 6° to 3° at 3 miles, 1000' altitude.	0-10 EPNdB, greater with greater distance from threshold. (higher altitude, reduced power)	Safety Pilot workload	Could have later switch to flatter slope with automated systems.
Two-segment approach. 6° to 3° at less than 1 mile, 250' to 400' altitude. (automatic controls)	5-15 EPNdB, greater with greater distance from threshold. (higher altitude, reduced power)	Equipment modifications	More benefit in highest noise impact areas than most other changes.
Delayed flap and gear extension	0-6 EPNdB until extension (reduced power)	Safety Pilot workload	Considerable benefit from changes with existing equipment - pilot option now. More potential with automated systems. Potential benefit in high-noise areas.
Combined approach techniques, existing equipment (high intercept, reduced flaps, 2-segment approach)	Possibly 20 EPNdB at 6-10 miles, less as threshold approached. (higher altitude, reduced power)	Pilot and ATC workload Safety	
Thrust cutbacks after takeoff, reduced flaps.	Up to 5 EPNdB ¹ after cutback, less with greater distance. Varies with aircraft type.	Safety	Now in use at some airports and by some airlines. Less useful with 4-engine jets because of less reserve power. More potential with higher reserve power. Some additional potential with automated systems. May result in more area in NEF contours because of slower climb after cutback.
Preferential runways	Raises in some, lowers in others	Small to moderate reduction in capacity, Pilot & ATC workload, Longer flights	Opportunity limited by land use pattern, usefulness limited by wind conditions at airports with strong prevailing winds.
Runway threshold shifts	Slight	May involve runway extension	Much shift required for significant reduction. More important as other techniques implemented. May increase airport noise with increased use of thrust reversal.
Concentration in corridors, delays before turning.	Varies, increase in some areas	Reduced capacity Pilot and ATC workload Longer flights	Monitoring helpful. Once established, should remain stable to be useful in adjusting land uses to noise impact.

¹Data for operational changes from M. C. Gregoire and J. M. Streckenbach, Effects of Aircraft Operation on Community Noise, Seattle, The Boeing Company, June 1971. Will vary considerably depending on existing practice, type of aircraft used, and ground location relative to flight path.

TABLE 3-2 (CONT)

Noise Abatement Strategy	Noise reduction	Costs	Limitations, Comments, other considerations
Relocation of take-off and approach routes	Raises in some, lowers in others	Longer flights Reduction in capacity Pilot and ATC workload	Opportunity limited by development pattern. To preserve opportunity need development controls in undeveloped corridors. Monitoring helpful.
Schedule restrictions (eliminate night flights)	High at night, none in daytime.	High to airlines if no alternate airport. Reduced capacity. Schedule conflicts.	Doesn't help at schools, other day uses. Considerable benefit in residential areas. Greatest opportunity in metropolitan areas with more than one airport, outlying airport for night flights.
Shifting corridors by time of day	Varies, increase in some areas and at some times	Reduced capacity Pilot and ATC workload Longer flights	Monitoring helpful. May be particularly useful in unusual land use situations where day-night shift appropriate. Possibility of providing some respite for all but closest in areas at cost of wider area of impact.
Aircraft type restrictions. Eliminate 4-engine jets, license by noise levels.	Varies with existing usage, particular restriction.	High to airlines if no alternate airport.	In use at JFK; Newark and La Guardia no 4-engine jets. Greatest opportunity in metropolitan areas with more than one airport, outlying airport for noisier aircraft.
Regulate time and place of ground operations	Varies		Most benefit from restricting night engine runups near residential areas.
Nacelle Lining	Takeoff - 3 EPNdB Approach - 10-15 EPNdB from present engines ¹	Initial - up to \$1,000,000/aircraft, + 9% operating ¹	Available soon. Requires Federal action.
"Quiet engine"	About 10 EPNdB below "best" today (747, DC-10) takeoff and landing ¹	\$4 million/aircraft retrofit, less on new aircraft ¹ (varies with type)	Available in 1975 or later. Requires Federal action. Various types under consideration.
Airframe changes Larger aircraft V/STOL aircraft	Reduce number of flights, increase takeoff and approach slopes	Research and development	Private sector action. Limited by passenger traffic demand.
Traffic allocation among airports and aircraft.	Reduce sensitive areas exposed, reduce number of flights	Longer flights Schedule problems Ground transportation	Among airports - limited to areas with more than one major airport. Among aircraft - reducing surplus seating requires some inter-airline cooperation. Federal planning assistance.
New airports	Raises some, lowers others. Reduce sensitive area exposed.	Administration Planning Acquisition Access Externalities at different locations	Some regional cooperation likely to be required. Easier with metropolitan authority with taxing powers. Coordination of airport location and design with land use planning and controls necessary to insure long-run benefits. Federal planning assistance.
Abandonment of existing airports	Reduce sensitive areas exposed	Abandon existing facilities. Jobs lost if no new airport. Depends on distance to nearest available air facility.	Can possibly use for general aviation or V/STOL. Possible income from sale of property.
Airport master planning - runway orientation	Reduce sensitive areas exposed	Varies: Administration Acquisition Operating costs	Wind, safety factors now predominate design requirements. Limited incentive to consider noise. Helpful to coordinate with surrounding land use if under same authority. Primarily new airports, also expansion. Expansion of use of environmental impact statement and review requirements may cause noise to be considered. Federal planning assistance.

¹National Academy of Sciences, National Academy of Engineering, Jamaica Bay and Kennedy Airport (Volume II), 1971, p. 115

TABLE 3-2 (CONT)

Noise Abatement Strategy	Noise reduction	Costs	Limitations, Comments, other considerations
Airport master planning - maintenance areas	Varies by location	Varies	Locate maintenance areas away from sensitive uses. Federal planning assistance.
Airport master planning - site size to include impact area	Reduce sensitive area exposed	May be very high Initial cost, carrying costs. Taxes foregone. Acquisition (possible income from leasing or sale with restrictions)	Airport authority may not be legally empowered to acquire land for other than airport use. (State enabling legislation required.) Local political opposition - removal from tax rolls, development potential. Coming into use at newest planned airports: Palmdale (Los Angeles) 18,000-acre site; Irving (Dallas-Ft. Worth); Minneapolis-St. Paul. Limited by financial resources of airport authority. Can make agreements on controls with surrounding communities rather than purchase. Federal planning assistance.
Airport master planning - management of airport property	Reduce sensitive area exposed	Administration Possible reduced utilization	Conditional leases or sale of excess property. Effectiveness limited by site size. Federal planning assistance.
Air traffic demand - V/STOL	Reduce highest noise impact areas, possibly increase lower impact. (Reduce number of CTOL flights)	New metropolitan V/STOL ports. New equipment. Access.	V/STOL demand most sensitive to changes in other transport - highways, HSGT, etc. Introduce now unexposed areas to noise. High takeoff, approach noise. May be serious access and parking problems in downtown areas.
Other transport modes (Primarily High speed ground transportation)	Reduce number of flights	System, equipment, access, land acquisition, research and development, planning.	Inter-regional and inter-state cooperation required. Volume sufficient for major separate system in only very few locations (NE corridor, LA - SF).
Other technologies (communication)	Reduce number of flights	System Research and development	Unpredictable, 10-20 year + horizon. Social changes likely with communication system sufficiently developed to reduce flight demand. National scale of planning and implementation required.
Barriers	Up to 10 EPNdB adjacent to airport. Useful for runups	Varies with extent	High, massive barriers best. Trees limited in reduction capacity. Not effective for airborne aircraft. Barrier must be close to either source or receiver to be effective. May be useful for V/STOL.
Public acquisition and development of vacant land	Reduce sensitive areas exposed from what would occur without public action	Acquisition Site Preparation Marketing Carrying costs Administration Tax loss during holding period	Airport authority not likely to want to get involved. Local government may object to controls. Business objections to government in the development business. Limited by demand for compatible use in impact area. Significant percent of impact area only at a very few airports.
Market service incentives for compatible development of vacant land	Reduce sensitive areas exposed from what would occur without public action	Publicity Administration Tax incentives-- tax loss for initial period	Can't prevent incompatible development. Tax incentives a minor factor in most business location decisions. Limited by demand for compatible use in impact area. Significant percent of impact area only at a very few airports.
Public use	Reduce sensitive areas exposed from what would occur without public action	Acquisition Development Differential in capital and operating costs between airport site and alternate sites Tax loss	Public uses likely to be limited. Federal aids available for many public uses. Many open space and recreation uses also sensitive to noise or other airport impact.

TABLE 3-2 (CONT)

Noise Abatement Strategy	Noise reduction	Costs	Limitations, Comments, other considerations
Relocation of incompatible uses - Acquisition	Reduce sensitive area exposed	Very high - purchase of developed land, demolition, assembly and preparation, relocation. (Federal aids for many parts of program)	Airport authority often not authorized and would not want to undertake. Generally very large areas involved. Local opposition probably strong. Existing development may not have sufficient other "blight" to justify. Noise as blighting influence in itself sufficient to justify redevelopment only in most extreme cases. Some relocation may be done in private sector if market is aided - alternatives provided, relocation loans, etc.
Relocation - market service	Reduce sensitive areas exposed	Varies with nature and extent of program. Relocation information and/or financial assistance. Development of alternate locations.	Doesn't reduce noise level. Theoretically means of adjusting market efficiently.
Zoning to compatible use	Reduce sensitive area exposed	Administrative. Slows development if demand for forbidden use (tax loss). Opportunity cost of land in other uses. Retroactive - compensation. If a "taking" - acquisition. Federal aids (HUD 701).	Usually many jurisdictions have authority in impact area. Local government doesn't have resources to set and enforce complex standards. Easier with model codes. May require enabling legislation to use noise as criterion. Can't restrict aircraft operations (Federal preemption). Tax competition discourages restrictions. Not retroactive - limited to undeveloped areas. Local government will resist metropolitan zoning. Minnesota Airport zoning act provides for combined authority for standard setting. Zoning-oriented land use classifications and noise sensitivity not always correlated - new standards may be required.
Subdivision regulation	Reduce sensitive area exposed	Administrative	Require large parcels for commercial/ industrial development in impact area. Little effect in itself in reducing conflicts - dependent on zoning regulations.
Public Services Planning - Official Map (Withhold services in impact area)	Reduce sensitive area exposed	Administrative. Tax income loss from undeveloped land. If a "taking" - acquisition.	May be legal restrictions on ability to withhold services. State enabling legislation required. May be followed as informal policy, but with much reduced effectiveness.
Advance acquisition of land in impact area for resale with controls	Reduce sensitive area exposed	May be very high initial cost and carrying cost, considerable recovery with development.	Due to high cost, limited to undeveloped areas. Legal authority limited - state enabling legislation required. Airport authority not likely to undertake unless required to. Political opposition from local government. Tax competition. Limited by financial resources. Income highly dependent on timing. Acquisition may be difficult because of speculative increases in value after site selection. New airports only. Method to circumvent limitations on use of noise criteria in zoning and building codes through deed restrictions.
Building codes requiring insulation	Inside: up to 25 EPNdB over normal construction	Administrative. Increased costs of development (tax loss) 10-20% increase in construction cost.	May require state enabling legislation to use noise zones for building code restrictions. Difficult to apply retroactively. Model codes helpful. Local opposition to increased development costs. Not likely to be legally applicable to single-family residences. Many local jurisdictions involved. Heat insulation often does not provide adequate sound insulation. Cost to owner or buyer.

TABLE 3-2 (CONT)

Noise Abatement Strategy	Noise reduction	Costs	Limitations, Comments, other considerations
Housing code	Inside: up to 25 EPNdB over normal construction	Administrative Code writing Increased development costs	Housing code commonly applies to existing dwellings. Public concern legally questionable for requirements in single-family dwellings. Many jurisdictions involved. Local opposition to increased costs. Model codes helpful.
Sound insulation of structures	10-25 EPNdB over normal construction. Varies with type of existing construction and extent of modification.	Varies with reduction: 10-15 dB, about \$3/sq. ft.; 25 dB, about \$8/sq. ft. (residences)	Doesn't change outdoor environment. Air conditioning required - changes "feel" of being inside house - ability to hear children and other neighborhood noises. Also insulates against traffic and other ambient noise. Legal limits on imposition of requirements through zoning and building codes - state enabling legislation, model codes helpful. Resistance from local community - increases development costs. Can tie provision of public funds to granting easement.
Sound masking	None - increases noise level	Acquisition, installation (varies)	Untested in residential use. May be suitable for some commercial facilities.
Planning by government, airport authority	Reduce sensitive area exposed	Administration Data collection	Must be based on accurate information for long time horizon to be effective in land use planning. Needs implementation tools. Many local jurisdictions often involved.
Public Hearings	Varies	Varies	Low level of public information makes process one-sided. Could be required for larger number of noise impact factors, including operational changes as well as location and design. Little incentive to adopt public-recommended changes.
Public involvement	Varies	Higher than hearings	Meaningful citizen involvement in decision-making expensive and time-consuming. Needed earlier in design process. May only reach certain socio-economic groups. Need some means to require joint solution to make effective (airport may ignore).
Noise easements on developed property	None	Varies with extent of easement - same order of magnitude as insulation - 10-20% of value.	Does nothing to control noise. Effect may depend on method of financing. May provide enough money to insulate structure. May be purchased or leased. Protects airport operator against litigation, though increased noise may bring new litigation.
Tax reductions	None	Administrative decision determines amount of tax loss	Similar to easement, but doesn't give legal protection. If applied to new development, may encourage incompatible development.
Existing legal channels	Varies	Litigation cost	Difficulty of demonstrating extent of damage. Must be continuing threat in order to affect aircraft noise levels. Same people often on both sides of case when city vs. airport authority. Time for settlement long.
Regulation by FAA	Varies	Costs to airport operator, airlines	FAA has little incentive to consider local community impact. Regulations to be most effective should be based on performance standards, but such standards make enforcement difficult. Difficult to develop regulations that don't create unusual market forces rather than desired noise reduction. Not automatic compliance, depends on enforcement.

¹MANAPS, JFK International Airport, p. 17.

TABLE 3-2 (CONT)

Noise Abatement Strategy	Noise reduction	Costs	Limitations, Comments, other considerations
Legislative establishment of responsibility and payment mechanism	Varies	Cost to airport operator, airlines, Administration.	Powerful airline, airport and airframe manufacturer lobbies will oppose. Limited by Federal preemption of airline regulation, prohibition against state interference with interstate commerce. Legal questions about use of noise contours as basis of strategy.
Information systems, monitoring	Control over other noise abatement strategies	Setup of monitoring network, Administration	Must have legal powers to control aircraft in order to be useful. Provide information for setting local standards.
Alternative decision structures, Metropolitan coordinating mechanisms: a. cooperation b. joint authority c. supervening authority	Easier implementation of land use related strategies	Administrative	Simple information may be sufficient to achieve considerable control. Local objections strong to giving up any significant <u>decision</u> power to metropolitan authority. Needs to be combined with other measures, such as tax sharing, to encourage local participation.
Economic incentives for noise reduction: Fines Variable landing fees Passenger taxes Adjusting airline license fees	Varies	Costs to airlines, Monitoring system, Administration.	Must be carefully structured to have desired effect. Limited by Federal preemption of aircraft operations regulation, prohibition against state interference with interstate commerce. Possible conflicting incentives at different airports.
Information to local communities, developers, homeowners	May reduce sensitive area exposed from what would occur with no information	Cost of information Enforcement	Leaves decision on whether to use noise as criterion to individual or community. Any social costs of noise impact not included in decisions.

APPENDIX F

SAMPLE INTERAGENCY AGREEMENTS

Included here are several of the alternative forms for interagency agreements and memos of understanding. This increasingly-used mechanism is particularly applicable for airport land use where multi-jurisdictional issues arise frequently.

EXAMPLE 1

MEMORANDUM OF UNDERSTANDING

BETWEEN MARION COUNTY, POLK COUNTY, THE CITY OF SALEM AND
THE MID WILLAMETTE VALLEY COUNCIL OF GOVERNMENTS
RECOMMENDING LEAD AGENCY DESIGNATION
UNDER PROVISIONS OF THE CLEAN AIR ACT AMENDMENTS OF 1977

This Memorandum of Understanding between the Marion County Board of Commissioners, the Polk County Board of Commissioners, the Salem City Council, and the Mid-Willamette Valley Council of Governments Board of Directors, concerns a recommendation to the Governor for designation of the Mid-Willamette Valley Council of Governments as the Lead Agency under Section 174 of the Clean Air Act Amendments of 1977, hereinafter called the Act. It also concerns the responsibilities of local agencies and the State in developing and implementing plans to meet the national ambient air standards in the Act.

WHEREAS, the Lead Agency designation does not require planning or implementation in addition to those already required, but does provide a forum for local elected official decision-making, and can provide additional air quality planning funds available only to local Lead Agencies; and

WHEREAS, a recommendation to the Governor for designation of a local Lead Agency requires unanimous consent of all parties to this Memorandum of Understanding;

NOW THEREFORE, be it agreed that the following recommendations to the Governor are accepted and adopted as firm policies of the parties as follows:

1. The Mid-Willamette Valley Council of Governments be designated as the Lead Agency under Section 174 of the Clean Air Act Amendments of 1977.
2. The determination of responsibilities shall be considered an on-going process but made jointly by State and local elected officials.
3. Initially, responsibilities for relevant planning, implementation and enforcement activities shall be as shown in Attachment A which is made part of this Agreement.
4. Attachment A cannot be changed without the written consent of all parties to this Agreement.

IN WITNESS THEREOF, the parties have executed this Agreement
this _____ day of _____, 19 ____.

Board of Commissioners for Marion County:

_____ _____ _____
Chairman Commissioner Commissioner

Board of Commissioners for Polk County:

_____ _____ _____
Chairman Commissioner Commissioner

City of Salem:

_____ Attest: _____
Mayor City Recorder

Mid-Willamette Valley Council of Governments:

Chairman, Board of Directors

ATTACHMENT A

INITIAL STATE AND LOCAL AIR QUALITY MAINTENANCE RESPONSIBILITIES

<u>Element Classification</u>	<u>RESPONSIBILITY</u>		
	<u>Planning</u>	<u>Implementation</u>	<u>Enforcement</u>
Traffic Operation Improvements	L,C,S	L,S	L,S
Alternative Modes	L,C,S	L,S	L,S
Parking Management	L,C,S	L,S	L,S
Vehicle Inspection and Maintenance	S	S	S
Air Quality Consistency Determination	C	--	--
Non Mobile Source Air Pollution	S	S	S

L - Local
C - COG
S - State

EXAMPLE 2

COORDINATION AGREEMENT

This agreement is made and entered into as of the ____ day of _____, 19__ by and between Green County, hereinafter referred to as "County" and _____, hereinafter referred to as the "District".

WHEREAS, cities and counties are required to prepare comprehensive plans and implementing ordinances under ORS 197; and

WHEREAS, the County is charged with the responsibility of coordinating comprehensive planning with all cities, districts, and agencies in Green County; and

WHEREAS, ORS 197.185(2) requires special districts that affect land use planning to enter into cooperative agreements with counties in order to bring their planning programs into conformity with statewide goals, and to coordinate their planning programs with other affected units of local government; and

WHEREAS, a special district is barred from contesting a request for compliance acknowledgement from LCDC related to a comprehensive plan submitted by a city or county, unless it has entered into a cooperative agreement with the County, and has coordinated its planning program with affected cities and counties; and

WHEREAS, it is clearly in the best interests of the District and the County to work closely with each other to assure that their ongoing planning programs are closely coordinated; NOW, THEREFORE,

The parties do mutually agree as follows:

1. The District and the County hereby enter into a cooperative agreement to coordinate the development of plans and programs of the District with those of all affected cities and counties.
2. The attached work program is a list of tasks and a time schedule intended to bring the District into compliance with the State land use goals.
3. The County agrees that it shall provide the District with the opportunity to review and comment on development proposals, comprehensive plans and policies, and implementing measures of all affected cities and the County.

Coordination Agreement

Page 2

4. The District will provide the County the opportunity to comment and review on all plans, programs and policies that affect land use planning.
5. This agreement may be amended only by mutual agreement of the parties hereto.

GREEN COUNTY BOARD OF COMMISSIONERS

DISTRICT

Chairman

Director

APPROVED FOR LEGAL FORM

Green County

EXAMPLE 3

URBAN GROWTH BOUNDARY AND POLICY AGREEMENT

This agreement made and entered into this ____ day of _____, 19__, by and between the City of _____, a municipal corporation, hereinafter called 'City', and Green County, a political subdivision of the State of Oregon, hereinafter called 'County'.

WHEREAS, under ORS 197, State Land Use Goal 14, Urbanization, the "Establishment and change of the boundary shall be a cooperative process between a City and the County or counties that surround it"; and

WHEREAS, pursuant to authority granted by Oregon Revised Statutes and Charter of the City of _____, the 'City' and 'County' propose to enter into an agreement to adopt an urban growth boundary, policies, and revision procedures for the _____ area, and to link a continuing planning process to capital improvement programs, operating budgets, subdivision and land use regulations; and

WHEREAS, the intent of the urban growth program for the 'City' is:

THEREFORE, the premises being in general as stated in the intent section of this agreement, the 'City' and 'County' adopt the following urban growth policies which shall serve as the basis for decisions pertaining to development and land uses in the area between the city limits of _____ and the urban growth boundary. These policies shall be consistent with Oregon state laws, the Green County Comprehensive Plan, and the _____ Comprehensive Plan.

URBAN GROWTH POLICIES

1. The 'County' shall retain responsibility for land use decisions and actions affecting the urban growth area. The urban growth area has been identified by the City as urbanizable and is considered to be available, over time, for urban expansion.
2. In order to promote consistency and coordination between the 'City' and 'County', the County shall incorporate that portion of the 'City's' "acknowledged" Comprehensive Plan which addresses the urban growth area into the County Comprehensive Plan.
3. Upon approval and mutual adoption of the urban growth boundary and the 'City' Comprehensive Plan by the 'County',

all public sector actions which fall within the urban growth area shall be consistent with the plan.

4. The 'City' and 'County' shall develop and maintain a system of rapid exchange of information and recommendations relating to the urban growth area immediately upon the mutual adoption of the 'City's' Comprehensive Plan. Information on subdivision applications and other land use activities shall be forwarded to the 'City' for comments and recommendations. The 'County' shall allow a reasonable amount of time for the 'City' to respond to the applications.
5. The area outside the Urban Growth Boundary shall be maintained in a low density, rural atmosphere, with open spaces, agricultural or forestry uses, consistent with state-wide land use planning goals.
6. The 'City' and 'County' shall strive to enhance the livability of the area and promote logical and orderly development in a cost effective manner.
7. The 'City' is the logical provider of public facilities and services. Therefore, annexation to the 'City' shall precede the provision of public facilities and services within the urbanizable area.

Review and Amendment Procedures:

The Urban Growth Boundary and Plan shall be reviewed by the 'City' and 'County' in accordance with the review schedule established in the 'City' Comprehensive Plan, as adopted by the 'County'.

COUNTY INITIATED AMENDMENTS WITHIN URBANIZABLE AREA

1. The Planning Commission shall review each proposed amendment and forward a recommendation to the Board of Commissioners, with a copy to the 'City'.
2. The Board of Commissioners thereafter shall hold a public hearing jointly with the 'City'. No final decision shall be made until an agreement is reached between the 'City' and 'County'.
3. If there is disagreement between the 'City' and 'County', a joint meeting shall be held to work out a mutually agreeable amendment.
4. If no mutual agreement can be reached, the 'County' or 'City' may appeal to the Land Conservation and Development Commission or the courts for a remedy.

CITY INITIATED COMPREHENSIVE PLAN AMENDMENTS WITHIN
URBANIZABLE AREA

1. The 'City' Council shall hold at least one public hearing, comply with applicable state goals, and shall adopt the proposed amendment by resolution. The resolution and all exhibits and findings shall be forwarded to the 'County' along with a letter requesting a review and adoption of the amendment.
2. Following review of the amendment by the 'County', the Board of Commissioners and the 'City' shall hold a joint public hearing on the amendment.
3. After mutual agreement is reached on the amendment, the 'City' and 'County' shall each adopt the amendment by ordinance, and correct the text, maps and other documents of their respective plans to reflect the amendment.

IT IS HEREBY UNDERSTOOD AND AGREED that the term of this agreement commences on the _____ day of _____, 19____, and terminates at 12:00 p.m. on the 30th day of June of the next year, except that this agreement shall automatically renew every year, unless terminated by one of the parties by giving the other party a thirty (30) day termination notice, in writing, prior to the renewal date. It is further understood that this agreement will be reviewed by the 'City' and 'County' every two years during the term of this agreement.

The 'City' shall pass a resolution authorizing the Mayor and City Recorder to enter into this agreement on behalf of the 'City'. The resolution shall be made a part of this agreement and attached hereto.

IN WITNESS WHEREOF, the respective parties hereto have caused this agreement to be signed in their behalf the day and year first above written.

CITY OF _____

GREEN COUNTY

Mayor

Chairman

Recorder

Commissioner

Commissioner

Legal Counsel

CITY UTILITIES COMPREHENSIVE PLAN AGREEMENTS WITH

UNIONVILLE CITY

The City and County shall hold at least one public hearing... shall also establish a public hearing... proposed amendments by resolution... shall be forwarded to the County... along with a letter requesting a review and adoption of the amendment.

Following review of the resolution by the Council, the Board of Commissioners and the City shall hold a joint public hearing on the amendment.

After mutual agreement is reached on the amendment, the City and County shall meet with the members of the Board of Commissioners and the City to discuss the amendment, and forward the resolution and other documents of their respective plans to reflect the amendments.

IT IS HEREBY AGREED AND UNDERSTOOD THAT THE CITY OF... shall be included in the City and County... shall be included in the City and County... shall be included in the City and County... shall be included in the City and County...

The City shall have a resolution authorizing the Mayor and City Manager to enter into this agreement on behalf of the City. The resolution shall be made a part of this agreement and attached hereto.

IN WITNESS WHEREOF, the respective parties hereto have caused this agreement to be signed in their behalf this day and date first above written.

CITY OF

Mayor

Recorder

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BIBLIOGRAPHY

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