

EARL MEETING - 12/20/1976

12/20/1976

**OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS**



**State of Oregon
Department of
Environmental
Quality**

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Environmental Quality Commission Meeting

December 20, 1976

Room 602, Multnomah County Courthouse

1021 S.W. Fourth Avenue

Portland, Oregon

9:00 a.m.

- A. Minutes of November 19, 1976 EQC Meeting
- B. Monthly Activity Report for October 1976
- C. Tax Credit Applications

PUBLIC FORUM - 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

- D. Oregon CUP Awards - Recommendations for Awards by the Oregon CUP Awards Screening Committee Dave Gemma
- E. Oregon CUP Awards Rules - Proposed Revisions to Rules for Oregon CUP "Cleaning Up Pollution" Awards Dave Gemma

9:30 a.m.

- F. Water Quality Management Plan - Public Hearing to Consider Adoption Hal Sawyer
- G. Georgia Pacific, Toledo Plant - Proposed Compliance Schedule for Liquid Waste Treatment Dick Nichols
- ~~H. Martin Marietta - Continuation of Public Hearing on Application for Modification of Martin Marietta's Air Contaminant Discharge Permit for The Dalles Aluminum Plant John Kowalczyk~~
- I. Agency Budget - Discussion of Proposed 1977-79 DEQ Budget JoAnn Scott
- J. Permaneer Corp., White City - Variance Request by NARAD, Inc. to Operate Permaneer Corp. Particleboard Plant in White City Fritz Skirvin

Because of the uncertain time spans involved, the Commission reserves the right to deal with any item, except Item F, at any time in the meeting.

The Commission will breakfast at 7:30 a.m. at the Congress Hotel and any of the items above may be discussed. Lunch will be at the Hilton Trees

Hazel
File

MINUTES OF THE EIGHTY-FIRST MEETING

of the

Oregon Environmental Quality Commission

December 20, 1976

At 9:05 a.m. on Monday, December 20, 1976, the eighty-first meeting of the Oregon Environmental Quality Commission convened in room 602 of the Multnomah County Courthouse, 1021 S. W. Fourth Avenue, Portland, Oregon.

Present were all Commission members: Mr. Joe B. Richards, Chairman; Dr. Morris Crothers, Vice Chairman; Dr. Grace S. Phinney; Mrs. Jacklyn Hallock; and Mr. Ronald Somers. Present on behalf of the Department were its Director, Mr. William H. Young, and several members of the Department's staff.

Chairman Richards indicated that two items had been dropped from the original agenda: Item H on Martin Marietta was put off with the consent of the Company until the January 14, 1977 meeting to allow time for compilation of public testimony; Item No. G on Georgia Pacific was also put off until the next meeting as a result of a conference between EPA, the Department and Georgia Pacific regarding further discussion on compliance schedule.

MINUTES OF NOVEMBER 19, 1976 EOC MEETING

It was MOVED by Commissioner Crothers, seconded by Commissioner Phinney and unanimously carried that the minutes of the November 19, 1976 meeting be approved as submitted.

MONTHLY ACTIVITY REPORT FOR OCTOBER 1976

Commissioner Phinney inquired into the exact nature of the approvals to Chem Nuclear. Mr. Ernest Schmidt indicated that the authorizations were for specific wastes from specific sources. Commissioner Hallock questioned if the Commission should: (1) periodically receive a report from the staff as to what chemicals were stored and in what quantity, including a lay description of the chemicals' toxicity, and (2) take a look at the rules to see if further definition of what is allowed to be stored is needed. Commissioner Phinney stated that she understood a report was to be given to the Governor on this same subject and requested copies of that report for the Commission. Mr. Schmidt indicated that all information requested could be provided. Mr. Schmidt said that unless the Director had heard from the Governor, the Department had not been contacted. Chairman Richards requested Mr. Schmidt to evaluate Commissioner Hallock's request and inform the Commission by the next meeting of the type of information that would be most helpful to meet the questions she had. Mr. Schmidt agreed to do this.

Mr. Schmidt also reminded the Commission that the Department is in the early stages of the hazardous waste program and is in the process of developing criteria for designating wastes as environmentally hazardous wastes. Mr. Schmidt indicated that the Department hopes to review and possibly expand its recently adopted rules by this Spring.

Commissioner Crothers MOVED, Commissioner Phinney seconded, and it was carried unanimously that the Monthly Activity Report for October 1976 be adopted as per the Director's recommendation.

NORTHWEST ENVIRONMENTAL DEFENSE CENTER VS. RUSSELL TRAIN AND DEQ

At Chairman Richards request, Mr. Robert Haskins summarized the situation as follows: On November 16, 1976, the Ninth Circuit Court had issued an order reversing the decision of the EPA Administrator granting NPDES permit issuing authority to Oregon, because DEQ's rules do not meet federal requirements. The Court suspended the effective date of this order for 60 days to allow the EOC to amend its NPDES program and resubmit it to the EPA Administrator for approval. Since the EPA Administrator's original approval, Oregon had issued over 700 NPDES permits. Should the Court's order become effective, it would cast a cloud over the validity of those permits. The State respondents (Director Young and DEQ) had petitioned the entire Court to review the case based on the following: (1) the petitioners did not have sufficient standing to bring the case; (2) Congress did not intend that State NPDES programs would be mirror images of federal requirements as the petitioners contend; (3) the EPA Administrator's interpretation of the statute and his approval of the program was reasonable and should have been followed by the Court; and (4) the Court should remove the cloud upon the validity of the 700 issued NPDES permits. The Court had not yet acted on this petition. Federal respondents (EPA) in the case had filed a motion to extend the time for filing a petition for rehearing, but had not, to Mr. Haskins knowledge, filed such a petition yet.

At Chariman Richards request, Mr. Haskins stated the options open to the Commission to be as follows: (1) take the federal guidelines, make a copy, and adopt them; (2) join with each party in an agreement on what would satisfy the Court's order short of a precise mirror image; (3) continue to seek a resolution in the Courts. Mr. Haskins stated that, in an attempt to accomplish the second alternative, meetings had been held with the attorney for the petitioners. He indicated that agreement had been reached between the Department and the petitioners as to language that would satisfy both the petitioners and the Department. Mr. Haskins indicated that proposed amendments to the NPDES rules as agreed upon were contained in Exhibit A to the proposed settlement agreement which the Commission had before it. Chairman Richards asked if this Exhibit A was the one which Mr. Sawyer had gone over with the Commission previously. Mr. Sawyer indicated that there were a few insignificant changes to the draft that was originally given to the Commission. Mr. Haskins said that the language in these proposed amendments had been approved by an EPA official in Washington D.C. He also said that this did not constitute an approval by

EPA, but it was an indication that the proposal could be acceptable to EPA. The petitioners and DEQ have agreed that if the proposed amendments are adopted and approved, that they will jointly petition the Court of Appeals to withdraw its order of November 16, dismiss the case with prejudice, and enter a stipulated decree indicating the Court has reconsidered the case and that the program is valid.

If for some reason, the Court should want to proceed differently, the agreement would provide the option to make sure that the cloud that is upon the issued permits will be taken care of, either by further judicial review, or court order. Commissioner Crothers said he wanted to make sure that the Court order would be phrased in such a way that the 700 already issued permits would be taken care of.

It was MOVED by Commissioner Somers, seconded by Commissioner Hallock and carried unanimously that the Commission adopt the proposed amendments to NPDES rules as stated in Exhibit A.

TAX CREDIT APPLICATIONS

It was MOVED by Commissioner Phinney and seconded by Commissioner Somers that the Director's recommendation be adopted with regard to the Tax Credit Applications.

Commissioner Phinney asked a question on T-846, Nordstrand Cedar Products, about the company being able to sell the waste products to Georgia Pacific. She wanted to know what sort of a monetary return was being gained. Mr. Schmidt stated that he could not respond to her questions. However, he did say that there was probably some monetary return, and that the information was undoubtedly in the files.

The motion passed unanimously.

OREGON CUP AWARDS - RECOMMENDATIONS FOR AWARDS AND PROPOSED REVISIONS TO RULES

Mr. David Gemma summarized the Oregon CUP Award Committee reports on recommendations for awards. It was MOVED by Commissioner Crothers, seconded by Commissioner Hallock and carried unanimously that the Director's recommendation regarding the Oregon CUP Awards be adopted. The recommendation was as follows:

It is recommended that Oregon CUP Awards for American Can Company-Halsey, ESCO Corporation and Publishers Paper be granted a renewal for the calendar year of 1977. It is further recommended that Oregon CUP Awards be granted to Crown Zellerbach-Wauna Mill, Mt. Angel Meat Company, and Bohemia Inc.-Bark Processing Pilot Plant. It is further recommended that Douglas County and the Portland Recycling Team be granted an institutional (one time only) Oregon CUP Award. Additionally, it is recommended that Letters of Commendation be granted for Cascade Construction Company, RIM (Recycling for Independence-Monmouth), and Willamina Lumber Company for the 1977 calendar year.

Mr. Gemma also summarized the report on the proposed rule changes for the Oregon CUP Awards Rules. After some discussion it was MOVED by Commissioner Hallock, seconded by Commissioner Phinney, and passed unanimously that the Director's recommendation be adopted which would replace the last paragraph of the Oregon CUP Award Rule titled Fraudulent Use of Oregon CUP Award Insignia Prohibited, with the following:

USE OF THE CUP AWARD INSIGNIA

A person or industry may display the Oregon CUP Award Insignia or any facsimile thereof, on any product or commodity, only when entitled to do so by means of selection of the Environmental Quality Commission. The year or years in which the Award(s) was or were granted must be clearly indicated each time the CUP Award Insignia is displayed.

PUBLIC FORUM

No one wished to speak on any subject.

WATER QUALITY MANAGEMENT PLAN - PUBLIC HEARING

Mr. Harold Sawyer of the Department staff presented the staff report and Director's recommendation which is made a part of the Department's files in this matter.

Chairman Richards then invited public testimony.

Mr. Walter J. Marquess (City Engineer, Talent, Oregon) testified that the main stem of Bear Creek should be designated for beneficial use for public domestic water supply. Mr. Marquess stated that Bear Creek appeared to be one of the few streams not so designated in that region of the state. He summarized Talent's existing sources of water supply for domestic and agricultural uses, and proposed future sources. He said a treatment plant has been proposed for location at the junction of Wagner Creek and Bear Creek, which would meet EPA standards, including reduction of pesticide residues in drinking water to acceptable levels. Mr. Marquess stated that the only viable and economical water supply for the City of Talent involved using water transported by Bear Creek during the fall months. Mr. Marquess submitted a written transcript of his testimony.

Mr. Richard Henry (Mayor, City of Talent) reiterated the statements made by Mr. Marquess. He said the City has battled with irrigation districts for ten years to assure an adequate water supply from Immigrant Lake. He also said that they cooperated in seeking an areawide solution and had no other alternative sources.

Mr. John LaRiviere (Jackson County) read two statements, one from the Jackson County Board of Commissioners and the other from the Rogue Valley Council of Governments. Both statements also requested designation of Bear Creek for beneficial use for public domestic water supply. To do otherwise, said the County Commission's statement, would be to ratify Bear Creek's existing water quality as adequate. The RVCOG statement said failure to so designate Bear Creek would undermine their 208 planning effort at its outset.

Mr. John Deason (Jackson County Commissioner) supported the statements of Mr. Marquess, Mr. Henry and Mr. LaRiviere and also stated that through a political decision the City of Talent has been unable to obtain Medford water (which Mr. Deason felt would have been the best solution) and their only other alternative was Bear Creek.

Mr. Claude Williams (Chairman of the Agricultural Committee of the Prineville-Crook County Chamber of Commerce) spoke in support of the Water Quality Management Plan, and suggested that a Water Quality Citizen's Advisory Board be created to be an official representative of local government concerns and to monitor and evaluate the statewide Water Quality Plan. He stated that with adequate citizen involvement, provisions such as those they suggested, the statewide Water Quality Management Plan as proposed was acceptable.

Mr. Grant Hodgson (People Against the Days Creek Dam) stated that this group would support the proposed turbidity standard addendum revision as stated earlier by Mr. Sawyer. He also urged that turbidity studies be conducted as soon as possible, because he believed they would predict higher turbidities than were predicted by the Corps of Engineers.

Mr. Thomas M. Ethen (Representing the Oregon Members of Northwest Food Processors Association) testified that there are two modifications the Association would like to see to the Water Quality Management Plan. The first referred to Volume I, Minimum Design Criteria for Treatment and Control of Wastes. The second line of paragraph "C" specified "new or modified facility." They felt that the word "modified" must be exactly defined to avoid misinterpretation. The second modification concerned the 10 mg/l BOD and 10 mg/l SS or equivalent treatment standard from approximately May 1 to October 1. Mr. Ethen stated that the people he represents would like this numerical value eliminated and the standard reworded to follow Federal EPA standard language. Mr. Ethen group questioned the need for standards in Oregon which were higher than what EPA imposes nationwide, and which will require higher treatment costs, much of which would have to be absorbed by the food processors. He stated that the processors would then study alternative methods of waste disposal such as land application or flow augmentation which appear to be less expensive than municipal sewage treatment plants. Mr. Ethen again urged that the EQC not adopt a water quality standard more stringent than required by EPA.

Mr. Thomas C. Donaca (Associated Oregon Industries) addressed the Willamette Basin portion of the proposed Plan. He requested that the Willamette Basin Plan give greater recognition to the value and need for maintaining minimum stream flows during the summer low flow period in order to maintain water quality. He then proposed that a new subsection be added to Subsection D, Page 87 of the Willamette Basin Plan to state that the EQC would investigate the means of maintaining at least existing minimum flow during the summer low flow period.

Chairman Richards asked Mr. Donaca if he favored adoption of the plan today. Mr. Donaca said that with a few minor revisions, AOI would not oppose adoption of the plan today, recognizing that the EQC would have to come back with revisions to the plan periodically.

Commissioner Alan Miller (Polk County, Mid Willamette Valley Council of Governments) stated that the concerns of the MWVCOG have been somewhat satisfied by Mr. Sawyer's comments earlier in the hearing. MWVCOG is particularly concerned with the proposed Willamette River Basin Plan, and with DEQ's methods of holding the public hearings on individual basin plans. They felt that not enough time was allowed to review the plan and to comment adequately. Mr. Miller reiterated his previous testimony (September 30, 1976) recommending that DEQ comply with LCDC's public participation Goal.

Mr. Hal Henigson, Nyssa, Oregon, addressed the Commission representing the Owyhee Project, Vale Irrigation District, Warm Springs Irrigation District and Owyhee Ditch Company. Mr. Henigson's concerns were about the Malheur and Owyhee River Basin Plans. Citing several examples of what he felt were "impossible situations", Mr. Henigson voiced his opposition to adoption of the plan. Mr. Henigson requested additional time until the end of January to submit written testimony. Chairman Richards urged Mr. Henigson to submit his comments at any time; however, he also informed Mr. Henigson that he felt adoption of the Plan should be made as soon as possible. Chairman Richards said that provisions were built into the Plan to provide for ongoing revisions.

Mr. Frank Van Dyke, an attorney for Rogue Valley Water Users Association, stated that those people he represents were strongly in support of environmental programs. Despite some of their concerns about this particular water quality management plan, he does not personally oppose the plan with the safeguards DEQ has built in. Mr. Van Dyke stated that the irrigation districts are concerned about becoming the primary policing agency for the Plan when there are large areas that are not under their jurisdiction at all.

Mr. Steve Bauer (League of Oregon Cities), said that the DEQ represented the feelings of the League very well, and that the League supported the Plan and suggested changes, and urged adoption.

Mr. Joel D. Kuntz, appeared as a private citizen, not representing any group. Mr. Kuntz was concerned about a particular interceptor and its effect on land use planning in Lake Oswego. He requested that the Commission only give conditional approval to the Evergreen Road interceptor contingent upon the approval of that interceptor in the Lake Oswego Comprehensive Plan, which could be 6 to 12 months away.

Mr. Tom Kline (Water Policy Review Board) stated that at the time the Board met last week they had not had the benefit of the DEQ staff recommendations made this morning. He stated that perhaps their position would have changed some if they had received those recommendations. Mr. Kline stated that the Board was concerned about the Plan with respect to application to water development projects, specifically that releases from existing and planned reservoirs could violate turbidity standards. Mr. Kline stated that the Board will work with DEQ and EQC on modifications to the water quality standards as set forth in the plan on a case-by-case basis for projects deemed to be in the public interest.

Chairman Richards then concluded the hearing and requested an analysis from the staff after the noon recess.

After the noon recess, Chairman Richards denied a request from Mr. Richard Steinfeld to offer additional testimony regarding the Water Quality Management Plan, because formal testimony had been concluded, but he urged Mr. Steinfeld to submit written testimony for the record.

As a result of testimony received during the morning hearing, Mr. Sawyer suggested the following changes. Mr. Sawyer stated that the Department has had some concern regarding the suitability of the water in Bear Creek for public water supply. Mr. Sawyer said that today was the first time they had heard testimony in support of the designation of Bear Creek for a public water supply from the Rogue Valley COG. Mr. Sawyer said that one alternative would be to go ahead with the designation, the second alternative would be to defer that for the moment. He said the primary concern was whether all or only part of Bear Creek should be designated in that manner. Mr. Sawyer proposed that on page 61, in the first line of the beneficial use table for the Rogue Basin, under Public Domestic Water Supply, under Bear Creek Main stem, a footnote be inserted to state "designation for this use is presently under study." Mr. Sawyer indicated that RVCOG had studies underway, and that DEQ would like to confer with them as to whether all or only a portion of Bear Creek should be designated. He also proposed to deal with the Bear Creek designation during the next plan revision opportunity.

Mr. Sawyer next addressed the Willamette Basin Plan, and Mr. Donaca's proposed additional language for page 87. Mr. Sawyer proposed the change as follows: on page 87, under "Special Policies and Guidelines," the first paragraph would be numbered 1; the subelements would be designated a, b, and c, and; a new paragraph numbered 2 would read - "The Environmental Commission shall investigate, together with any other affected state agencies, the means of maintaining at least existing minimum flow during the summer low flow period."

Mr. Sawyer then addressed the concerns of the food processing industry regarding the treatment requirements. Mr. Sawyer stated that if no more growth occurred in the Valley, then the standards which now exist would probably be adequate. However, growth is inevitable. Accordingly, to allow for this growth, the existing loads must be scaled back over time to make room for new sources. Mr. Sawyer stated that it was necessary and desirable to put entities on notice now that more stringent controls in terms of treatment efficiency are inevitable. He also stated that in order to accommodate new sources, it would be preferable to have a margin of unallocated loads, which we do not now have. Mr. Sawyer said that at this time he recommended that the present proposal not be modified, but be further considered through the review process.

Mr. Sawyer stated that staff are aware of the irrigation district concerns which were raised. He said that the water quality standards they were concerned about were existing standards and not new proposals. Mr. Sawyer said that the 208 studies might produce some data that current agricultural irrigation practices and water quality standards are conflicting. However no adequate data was available at the present time.

Mr. Sawyer said that the need for coordination with LCDC planning processes is recognized. He said that the coordination process was just in the beginning stages in the Department as a whole, and that the Commission would be informed on progress.

Commissioner Phinney MOVED and it was seconded by Commissioner Crothers that the Director's recommendation be amended as stated by Mr. Sawyer. The motion passed unanimously.

Commissioner Crothers MOVED and Commissioner Phinney seconded that the Director's recommendation as amended be adopted. The motion passed unanimously.

Commissioner Crothers further stated that he voted for the Plan with the assurance that the Commission would be kept informed of the revisions to the Plan.

Commissioner Hallock MOVED that the EQC adopt a temporary rule to change the effective date from January to May (1977) in Geographic Region Rule B (OAR Chapter 340, 71-030(9)). Commissioner Hallock stated that the reason for this change was that the hearing on this rule that was held on the Coast was misrepresented in the newspaper, causing coastal residents who wished to testify to miss the hearing. Other hearings were held only in Jackson County and The Dalles. This would give the staff an opportunity to hold another hearing on the Coast.

Chairman Richards invited testimony, but indicated that only the merits of changing the effective date would be discussed at present.

Ms. Mary D. Leeper read a statement regarding the sand-on-sand fill permitted by the Rule B decision and its disadvantages to the coastal areas. Chairman Richards asked Ms. Leeper if she supported the motion to change the effective date to May 1st, or would she prefer to have it remain January 1st. Ms. Leeper said she preferred May 1st. Chairman Richards told Ms. Leeper that any data regarding the sand-on-sand ruling should be presented at the appropriate public hearings on the coast in March.

Mr. Stewart Bell (Clatsop Environmental Council) delivered a letter to the Commission regarding the sand-on-sand fill problem. He also stated that he understood the March hearings would be on a related but separate matter. He suggested that it would be more appropriate for the Commission to rescind its October 15, 1976 ruling at least until a public hearing has been held on this matter in order not to severely limit local planning options. He suggested that it also be made clear that the hearing would be on two matters. Commissioner Hallock responded that the Commission would be in the area and that they can take up several matters on their agenda.

Commissioner Somers indicated that it should be cleared up that the matter which the speakers want to take up is not even before the Commission at this time. He then restated Commissioner Hallock's motion, for clarification. Commissioner Somers stated that the only thing done in October was a re-definition of the subsurface sewage rules. The moratorium in Clatsop County was an entirely different proceeding and was not affected by this rule. Some discussion followed regarding what areas of the state this rule would apply in, and whether areas of the state other than the Coast would be hindered in development.

Mr. William Berg appeared for the Gearhart Homeowners Association; also speaking for the majority of the Gearhart City Council. Mr. Berg requested Commissioner Hallock to amend her motion to suspend the effective date of Rule B indefinitely, or at least until the county and cities have approved their comprehensive plan. Mr. Berg read letters from Gearhart City Council members, Kent A. Smith and Nancy L. Black, regarding the sand-on-sand ruling. He also submitted a copy of a letter from Mike Morgan, LCDC Local Coordinator to Hal Brauner LCDC Director, urging postponement of proposed rule change. Mr. Berg then asked the Commission to carefully consider its motivation for the rule change, its goals and objectives, and what it would accomplish.

Commissioner Hallock said she might be willing to amend her motion after the Commission goes to the Coast and hears testimony. Commissioner Hallock said that her only point in deferring the date was to give the Commission that opportunity. Commissioner Hallock asked Mr. Berg if he supported deferral of the rule until May. Mr. Berg stated that he supported deferral as long as possible.

Commissioner Crothers said he supported Commissioner Hallock, and that it would be impossible to adopt a temporary rule to indefinitely postpone something. Chairman Richards also supported the motion. The motion was adopted with Commissioner Somers casting a no vote.

AGENCY BUDGET

Ms. Jo Ann Scott of the Department staff summarized the Department's budget and the Governor's changes since the last briefing. Commissioner Somers expressed approval of the new program to use a "secretarial pool" in the Department. He wanted to know if it was receiving acceptance in the Department. The Director stated he was not familiar enough with the program to comment.

NARAD, INC. - VARIANCE REQUEST

Mr. F. A. Skirvin summarized the staff report regarding the request for variance by NARAD, Inc. to operate the Permaneer Corporation particleboard plant in White City. Mr. Skirvin stated that due to financial problems, the Permaneer Corporation had been unable to fulfill its compliance requirements at its White City plant. Permaneer was behind in two of the five compliance schedules, but since the plant has not been operating, no air quality problems have developed. NARAD, Inc. is interested in purchasing the White City facility and resuming normal operation as soon as possible. NARAD is requesting essentially the same variance and compliance schedule now held by Permaneer conditioned upon the transfer of ownership. Mr. Skirvin summarized the Director's recommendation to grant such a variance.

Commissioner Somers MOVED and Commissioner Hallock seconded that the Director's recommendation be approved. Commissioner Somers asked Mr. Skirvin if the original compliance schedule had been extended to December 1979. Mr. Skirvin stated that it was not an extension over the original compliance schedule. Mr. Skirvin said that it was important for NARAD to know if they could operate before they could transfer ownership, etc. The motion passed unanimously.

There being no further business, the meeting was adjourned at 2:30 p.m.



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item B, December 20, 1976, EQC Meeting
October Program Activity Report

Discussion

Attached is the October 1976 Program Activity Report.

ORS 468.325 provides for approval or disapproval of Air Quality plans and specifications by the Environmental Quality Commission. 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 to provide information to the Commission regarding status of the reported program activities, to provide a historical record of project plan and permit actions, and to obtain the confirming approval of the Commission of actions taken by the Department relative to air quality plans and specifications.

Recommendation

It is the Director's recommendation that the Commission take notice of the reported program activities and give confirming approval to the Department's actions relative to air quality project plans and specifications as described on pages 10 and 11 of the report.

Michael Downs
for
WILLIAM H. YOUNG
Director



Contains
Recycled
Materials

RLF:ee
12/7/76

Department of Environmental Quality
Technical Programs

Permit and Plan Actions

October 1976

<u>Water Quality Division</u>	<u>Page</u>
114 Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	2
56 Plan Actions Pending - Summary	1
29 Permit Actions Completed - Summary	7
Permit Actions Completed - Listing	8
143 Permit Actions Pending - Summary	7
 <u>Air Quality Division</u>	
15 Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	10
17 Plan Actions Pending - Summary	1
61 Permit Actions Completed - Summary	12
Permit Actions Completed - Listing	13
91 Permit Actions Pending - Summary	12
 <u>Solid Waste Management Division</u>	
6 Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	18
13 Plan Actions Pending - Summary	1
23 Permit Actions Completed - Summary	19
Permit Actions Completed - Listing	20
64 Permit Actions Pending - Summary	19

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air, Water and Solid Waste
Management Divisions
(Reporting Unit)

October 1976
(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	18	47	15	44		1	17
Total	18	47	15	44		1	17
<u>Water</u>							
Municipal	89	443	107	378			50
Industrial	7	41	7	39	1	2	6
Total	96	484	114	417	1	2	56
<u>Solid Waste</u>							
General Refuse	2	17	3	23		1	9
Demolition		2		2			1
Industrial		8	1	11			3
Sludge		2		2			
Total	2	29	4	38		1	13
<u>Hazardous Wastes</u>	2	4	2	4			
<u>GRAND TOTAL</u>	118	564	135	503	1	4	86

DEPARTMENT OF ENVIRONMENTAL QUALITY

TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality DivisionOctober 1976Plan Actions Completed - 114

County	Name of Source/Project/Site & Type of Same	Date Rec'd	Date of Action	Action	Time to Complete Action
	<u>Municipal Sources - 107</u>				
34	USA/TIGARD SUMMER FIELD - PHASE IV	092776	100476	PROV APP	07
2	CORVALLIS SS GREEN&BACH SD-ST DESIGN-3	090176	100176	PROV APP	14
10	TRI-CITY MRTCKJACK COURT	091576	100176	PROV APP	16
20	VENETA CHENEY COURT SUBD	092376	100176	PROV APP	08
36	DUNDEE CEDAR STREET	092976	100476	PROV APP	05
36	NEWBERG JODI MARIE SUBD	092076	100476	PROV APP	14
36	NEWBERG RD CRSSNG SWR GEO FOX COLL.	092876	100476	PROV APP	06
4	PT OF ASTORIA REVISED PLANS	092476	100476	PROV APP	10
26	PORTLAND C.O. NO.4 - PAMCO CONTRACT	092376	100476	APPROVED	11
26	PORTLAND C.O. NO.1 SCHMEER I PACKARD	092476	100476	ADPROVED	10
26	PORTLAND C.O. NO.2 SCHMEER II PACKARD	092476	100476	APPROVED	10
24	SALEM ELK PARK SUBD	092476	100476	PROV APP	10
24	SALEM ADDENDUM NO.1 GLEN CREEK	091776	100476	APPROVED	17
24	SILVERTON 4PROJECTS-NPDES PERMIT	091476	100476	PROV APP	20
34	USA/DURHAM BICENTENNIAL/BEAV.	091076	100476	PROV APP	24
29	WHEELER EDA PROJECT EXTNSNS PRELIM	V100176	100476	Conceptual Approval	03
29	NTCSA EDA PROJECT EXTNSNS PRELIM	V100176	100476	Conceptual Approval	03
29	TWINROCK S.D. EDA PROJECT - EXTNSNS PRELIM	V100176	100476	Conceptual Approval	03
34	USA/DURHAM BROOKHAVEN	092776	100476	PROV APP	07
34	USA/ALOHA SS JESTA HILLS NO 2-205E	090376	100476	PROV APP	31
34	USA/FOREST GR TERRY BROOKE II	091576	100476	PROV APP	19
34	USA/DURHAM MALETIS SS EXT. - 206 -	090776	100476	PROV APP	27
34	USA/DURHAM GREENWAYRIDGE TOWN HOUSES	091376	100476	PROV APP	21
34	USA/DURHAM CHEERYWOOD HILLS	091376	100476	PROV APP	21
34	USA/DURHAM BOMAR PARK	092976	100576	PROV APP	06
34	USA/DURHAM STANTON CUDAHY	092976	100576	PROV APP	06
3	LAKEOSWEGO BIRKEMEIER TOWNHOUSES	092376	100576	PROV APP	12

DEPARTMENT OF ENVIRONMENTAL QUALITY

TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality DivisionOctober 1976Plan Actions Completed (Continued)

County	Name of Source/Project/Site & Type of Same	Date Rec'd	Date of Action	Action	Time to Complete Action
	<u>Municipal Sources (Continued)</u>				
3	LAKEOSWEGO GUS ENTERPRISES APTS MT. PK	092876	100576	PROV APP	07
24	SALEM SPRINGDALE	092876	100576	PROV APP	07
24	SALEM WILLOW ROCKWOOD PARK APARTMENTS	092976	100576	PROV APP	06
24	SALEM WILLARD PARK WEST NO. 2	092376	100576	PROV APP	12
29	CLOVERDALE CHNG ORDR B-I & B-II SCHED. II	093076	100676	APPROVED	06
24	SALEM LINDA VISTA ADDITION	091576	100676	PROV APP	21
17	CAVE JUNCTION ROBINWOOD ESTATES UNIT NO. 1	092776	100676	PROV APP	09
30	HERMISTON HIGHLAND HILLS SUBD	092276	100776	Returned for re-Submittal	15
30	HERMISTON ALORA HEIGHTS SUBD	092176	100776	thru City	16
3	CCSD #1 PIZZA PARK II	092776	100776	PROV APP	10
3	CANBY FILBERT ESTATES	091776	100776	PROV APP	20
34	HILLSBORO #1 N. E. FOURTH AVE	092876	100776	PROV APP	09
16	JEFFERSON SUNRISE VILLA OF GLASER ADD	092076	100776	PROV APP	17
24	SALEM WILLOW*CHANGE ORDER NO. 6	V100476	100776	APPROVED	03
26	HAYDEN ISLAND RESSURE MAIN EXTENSION	K100776	100776	PROV APP	01
23	ONTARIO SHUNN SUBD NO. 2	092476	100776	PROV APP	13
20	SPRINGFIELD DEBRA PARK	092376	100876	PROV APP	15
20	SPRINGFIELD FIRST ADD TO NORTHRIDGDE	092376	100876	PROV APP	15
20	SPRINGFIELD JACOBSON-IRVING SD SP-225 SP	093076	100876	PROV APP	08
20	SPRINGFIELD 8TH--"R"--FUCHSIA STREET	092376	100876	PROV APP	15
2	CORVALLIS COUNTRY CLUB HEIGHTS CONDO RVJ	100176	101176	PROV APP	10
09	MT BACH. CONDOSKI HOUSE NO. 2 COND	100576	101276	PROV APP	07
06	EASTSIDE PORTION OF EASTSIDE PLAT	K100176	101376	PROV APP	12
22	LEBANON WASTEWATER TRIMNT PLANT	081676	101376	PROV APP	57
26	PORTLAND SE 82-HARRISON AND DIVISION	092976	101376	PROV APP	14
27	DALLAS S W RIVER DRIVE	J100176	101376	PROV APP	12
03	OAKLODGE SD STALICK'S ADDITION	J100876	101376	PROV APP	05

DEPARTMENT OF ENVIRONMENTAL QUALITY

TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality DivisionOctober 1976Plan Actions Completed (Continued)

County	Name of Source/Project/Site & Type of Same	Date Rec'd	Date of Action	Action	Time to Complete Action
<u>Municipal Sources (Continued)</u>					
10	SUTHERLIN - AZALEA COURT ADDITION	092876	101376	PROV APP	15
20	EUGENE - 11TH ADD TO NOB HILL SUBD.	092476	101376	PROV APP	19
20	EUGENE - RAINTREE SUBD	092476	101376	PROV APP	19
20	EUGENE - N. POLK ST 600 FT FRM PLK CT	092476	101376	PROV APP	19
10	CANYONVILLE - CANYON VIEW ESTATES	092776	101376	PROV APP	16
25	HIGHWAY DIV. - BOARDMAN SAFETY REST AR REV	V100876	101376	PROV APP	05
26	PORTLAND - SW HUBER SW 30TH - PRIV PROP	J101276	101476	PROV APP	02
08	PORT ORFORD - SCH DIST 2CJ PAC HS LAGOONS	071276	101476	PROV APP	92
34	HILLSBORO RC - MEVIS EXT	J100876	101476	PROV APP	06
03	WESTLINN - SKYLINE CIRCLE #SLIPLINING*	J100676	101476	PROV APP	08
3	C.C.S.D #1 - PRELOAD CONTRACT C.O. 3456	H101476	101576	APPROVED	01
03	OAKLODGE S.D. - DONIS ADDITION SUBD	J101276	101576	PROV APP	03
26	GRESHAM - ALFREDA SUBD	J101176	101576	PROV APP	04
26	GRESHAM - VILLAGE SQUARE	J100776	101876	PROV APP	11
34	USA/SHERWOOD - LONGBOW ACRES	091776	101976	PROV APP	32
15	MEDFORD - ELLENDALE - HOBART STREET	J101576	101976	PROV APP	04
15	MEDFORD - MERRIMAN RD SS-339	090976	101976	PROV APP	39
15	MEDFORD - MIDWAY - TABLE ROCK	J101576	101976	PROV APP	04
34	USA/SHERWOOD - SHERWOOD COUNTRY ESTATES	091476	101976	PROV APP	35
08	PACIFIC HG SCHPT ORFORD LNGLS LAGN ADD #1	V100676	102076	APPROVED	14
01	HUNTINGTON - C.O. NO.1 DISINFECTION FCLTYV	101876	102076	APPROVED	02
20	SPRINGFIELD - B & D PARK #REVISED*	K102076	102076	PROV APP	01
20	SPRINGFIELD - KEN EVERETT SUBD-224	K101276	102176	PROV APP	09
06	MYRTLE POINT - KINGLAME & 22ND ST P&K CONST	K101976	102276	PROV APP	03
06	COQUILLE - OERDING VILLAGE	K101976	102276	PROV APP	03
34	USA / FANNO - BROOKHAVEN	K101876	102276	PROV APP	04
20	VENETA - FREEDOM SUBD.	K101176	102276	PROV APP	11

DEPARTMENT OF ENVIRONMENTAL QUALITY

TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division

October 1976

Plan Actions Completed (Continued)

County	Name of Source/Project/Site & Type of Same	Date Rec'd	Date of Action	Action	Time to Complete Action
	<u>Municipal Sources (Continued)</u>				
22 ALBANY	EDA EAST CENTRAL PHASE II	V102276	102276	Conceptual Approval	01
34 USA / DURHAM	C. O. 26 AND 27	V101176	102276	APPROVED	11
18 CHILOQUIN	C. O. #2	V100876	102276	APPROVED	14
2 CORVALLIS	WAKE ROBIN VILLAGE P.D.	091076	102276	PROV APP	42
03 GLADSTONE	ABERNETHY LANE	K101376	102276	PROV APP	09
4 ASTORIA	30TH ST. - MARINE DR TO R.R.	K100176	102276	PROV APP	21
34 USA/BEAVERTN	MCCORMACK PLACE NO. 2	K100576	102276	PROV APP	17
34 USA	KINGSGATE SW BOONES FERRY	RDK100176	102276	PROV APP	21
03 MILWAUKIE	PAULS MAUL	K100876	102276	PROV APP	14
26 GRESHAM	ROYAL PALM REVISIED*	K101876	102276	PROV APP	04
2 CRVLLS AIRPRT	LAGOON	092876	102276	PROV APP	24
10 GLIDE	PARTIAL PRESSURE MAIN	V100476	102276	PROV APP	18
3 LAKE OSWEGO	LID176 SUMMIT DR/RIDGEWOOD	K100576	102276	PROV APP	17
26 PORTLAND	4 EDA PROJECTS STRM SPRTN	V102576	102576	Conceptual Approval	01
02 CORVALLIS	ELKS DRIVE 76-5	K102276	102676	PROV APP	04
02 CORVALLIS	ELKS DRIVE 76-5	K102276	102676	PROV APP	04
30 PENDLETON	L I D 347 AIRPORT ROAD	K100576	102676	PROV APP	21
34 USA/FOREST GV	TAMARACK SUBD	092976	102676	PROV APP	27
03 WEST LINN	VILLAGE PARK II	K101576	102676	PROV APP	11
02 CORVALLIS	ELKS DRIVE 76-5	K102276	102676	PROV APP	04
16 CULVER	CHANGE ORDER NO. 11	V102676	102876	APPROVED	02
21 GILETZ	TARA NO. 1 - GRINSTEAD	J102576	102876	PROV APP	03
24 SALEM	WILCO RD EXT.	K101576	102876	PROV APP	13
22 ALBANY	COLLEGE GREEN 1 ADD	SS7E9ABCK101576	102876	PROV APP	13
03 OAK LODGE SD	DONIS ADDITION REVISIED*	J102276	102876	PROV APP	06
22 ALBANY	SS 76-9A PUMP ST&76-9B GRAV	081076	102876	PROV APP	78

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

October 1976
(Month and Year)

PLAN ACTIONS COMPLETED - con't

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>INDUSTRIAL WASTE SOURCES - 7</u>			
Yamhill	Knudsen-Erath Winery Dundee, Waste Water Collection & Disposal	9/29/76	Approved
Linn	Teledyne Wah Chang Albany - Pickle Acid Recovery	10/6/76	Approved
Clatsop	Oregon Fish & Wildlife Klatskanine Hatchery Pollution Control Facilities	10/7/76	Approved
Linn	Teledyne Wah Chang Albany - Lab Control Equipment	10/11/76	Approved
Linn	Teledyne Wah Chang Albany - Ammonia Recovery Improvements	10/13/76	Approved
Washington	Tektronix, Inc., Beaverton Acid Copper Plating Waste Treatment	10/28/76	Approved
Columbia	PGE Trojan - Relocation of Oil Water Separator Tank	10/28/76	Approved
Hood River	Luhr Jensen - Oak Grove Plating Waste Treatment Facilities	10/29/76	Plans Returned to Luhr Jensen - Obsolete

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality
(Reporting Unit)

October, 1976
(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.	Month	Fis. Yr.	Month	Fis. Yr.	Month	Fis. Yr.		
	* **	* **	* **	* **	* **	* **	* **	* **	* **	* **		
<u>Municipal</u>												
New	0	0	0	2	2	1	6	3	0	6		
Existing	0	0	0	0	1	1	1	2	2	4		
Renewals	5	0	12	1	4	0	20	1	3/ 39	1		
Modifications	0	0	11	0	5	0	17	0	4/ 13	0		
Total	5	0	23	3	12	2	44	6	54	11	297	57
<u>Industrial</u>												
New	2	0	3	3	0	2	1	4	5	2		
Existing	0	0	0	1	1	1	2	11	3	0		
Renewals	8	3	17	6	1/ 3	5	18	7	24	6		
Modifications	4	0	17	2	2/ 3	0	20	0	24	1		
Total	14	3	37	12	7	8	41	22	56	9	425	83
<u>Agricultural (Hatcheries, Dairies, etc.)</u>												
New	1	0	1	0	0	0	0	1	4	0		
Existing	0	0	0	0	0	0	0	1	0	0		
Renewals	0	0	0	0	0	0	0	0	0	0		
Modifications	0	0	9	0	0	0	2	0	9	0		
Total	1	0	10	0	0	0	2	2	13	0	61	8
GRAND TOTALS	20	3	70	15	19	10	87	30	123	20	783	148

* NPDES Permits
** State Permits

- 1/ Discharge eliminated; renewal withdrawn
- 2/ Modification withdrawn
- 3/(1) Duplicate Eliminated
- 4/(1) Duplicate Eliminated

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality
(Reporting Unit)

October, 1976
(Month and Year)

PERMIT ACTIONS COMPLETED - 29

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Lane	Ralf N. Hakanson Aggregate Plant	10/13/76	State Permit Renewed
Polk	Dessert Seed Company, Inc. Bulbs & Seeds	10/13/76	State Permit Renewed
Lane	The Clorox Company Kingsford Charcoal	10/13/76	State Permit Issued
Marion	Abiqua Rock Products Company Aggregate Plant	10/13/76	State Permit Issued
Klamath	Town of Bonanza Sewage Disposal	10/13/76	State Permit Issued
Josephine	Rogue Community College Sewage Disposal	10/13/76	State Permit Issued
Lane	Bohemia, Inc. Junction City	10/19/76	State Permit Issued
Hood River	Luhr Jensen & Sons Hood River	10/19/76	NPDES Permit Modified
Hood River	Neighbors of Woodcraft Sewage Disposal	10/19/76	NPDES Permit Modified
Curry	Pacific High School Sewage Disposal	10/19/76	NPDES Permit Modified
Coos	California Shellfish Company Hallmark Fisheries	10/19/76	NPDES Permit Modified
Yamhill	City of Yamhill Sewage Disposal	10/19/76	NPDES Permit Modified
Tillamook	North Tillamook County Sanitary Dist. Sewage Disposal	10/19/76	NPDES Permit Modified
Marion	City of Silverton Sewage Disposal	10/19/76	NPDES Permit Modified
Washington	Lite Rock Company Aggregate Plant	10/22/76	State Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality
(Reporting Unit)

October, 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (29 - con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Umatilla	J. R. Simplot Company Potato Processing	10/22/76	State Permit Issued
Baker	W. F. Spain Gold Mining	10/22/76	State Permit Issued
Tillamook	Louisiana-Pacific Corporation Tillamook	10/29/76	NPDES Permit Renewed
Multnomah	Bart's, Inc. Domestic Sewage	10/29/76	NPDES Permit Issued
Coos	Coos Bay Timber Operators Koostone Quarry	10/29/76	NPDES Permit Issued
Crook	Ochoco Lumber Company Sawmill	10/29/76	NPDES Permit Renewed
Clatsop	City of Astoria Domestic Sewage	10/29/76	NPDES Permit Issued
Tillamook	Pacific City Sanitary District Sewage Disposal	10/29/76	NPDES Permit Issued
Lincoln	Siletz Keys Sanitary District Sewage Disposal	10/29/76	NPDES Permit Renewed
Lane	Springfield Schools Goshen School	10/29/76	NPDES Permit Renewed
Linn	Tangent Elementary School Sewage Disposal	10/29/76	NPDES Permit Renewed
Josephine	Redwood Sanitary Sewer S.D. Sewage Disposal	10/29/76	NPDES Permit Issued
Douglas	Beehive Management Corporation dba Reedsport Cheese	10/29/76	Discharge Eliminated Permit Withdrawn
Douglas	International Paper Gardiner Pulp Mill	10/29/76	Modification Dropped

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

October, 1976
(Month and Year)

PLAN ACTIONS COMPLETED - 15

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources (15)</u>			
Union (653)	Boise Cascade, New cyclones for sanderdust boilers.	8/76	NC cancelled. Source test shows compliance.
Josephone (692)	Copeland Paving, Inc. Asphalt Plant.	5/18/76	Air Contaminant Dis- charge Permit issued in lieu of NC approval.
Jackson (698)	Royal Oak Charcoal, Truck dumper.	11/5/76	NC cancelled. Pro- ject delayed inde- finitely.
Baker (775)	Ellingson Lumber, 4 phase boiler improvement program.	9/24/76	Addendum to permit issued in lieu of NC approval.
Grant (780)	Hudspeth Mills, Two new boilers	3/6/76	Project cancelled; variance requested to run old boilers for 5 years.
Multnomah (794)	Walker Electric, Motor burnout oven.	10/26/76	Approved.
Multnomah (801)	Gilmore Steel, Scrubber on pellet furnace.	10/21/76	Approved.
Multnomah (802)	B. W. Feed Company, New cyclone.	10/27/76	Approved.
Linn (805)	Oregon Metallurgical, Titanium sponge plant.	10/7/76	Approved.
Marion (806)	Goodwill Industries, Fumigation chamber.	10/21/76	Approved.
Multnomah (808)	U. S. Bakery, Add natural gas for boilers.	10/7/76	Approved.
Multnomah (809)	Dura Glass Products, Re-enforced plastics plant.	10/11/76	Approved.
Linn (810)	Teledyne Wah Chang, Cyclones and bag filters on sand chlorination.	10/11/76	Approved.

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

October, 1976
(Month and Year)

PLAN ACTIONS COMPLETED (15 - con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources (continued)</u>			
Washington (811)	Oregon Primate Center, New incinerator.	10/25/76	Approved.
Jackson (812)	Rogue Valley Hospital, Add afterburner to incinerator.	10/15/76	Approved.
Multnomah (813)	Pennwalt Corporation, Scrubber for chlorate process.	10/13/76	Approved.
Multnomah (814)	Ace Galvanizing, Move galvanizing tanks.	10/26/76	Approved.
Hood River (819)	Thomsen Orchard, Orchard fan.	10/27/76	Approved.
Douglas (820)	Mercy Medical Center, 2 new oil-fired boilers.	10/22/76	Approved.
Linn (824)	H. M. Weatherford, Kiln to process zirconium.	10/28/76	Approved.

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

October, 1976
(Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sources under Permits	Sources Reqr'g Permits
	<u>Month</u>	<u>Fis.Yr.</u>	<u>Month</u>	<u>Fis.Yr.</u>			
<u>Direct Sources</u>							
New	1	12	3	12	10		
Existing	7	24	23	45	25		
Renewals	13	27	15	73	41		
Modifications	3	10	14	50	9		
Total	24	73	55	180	85	2181	2216
<u>Indirect Sources</u>							
New	1	6	6	13	5		
Existing							
Renewals							
Modifications	1	2	0	1	1		
Total	2	8	6	14	6		
<u>GRAND TOTALS</u>	26	81	61	194	91		

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

October 1976
(Month and Year)

PERMIT ACTIONS COMPLETED - 61

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Baker	Ellingson Lumber Co. 01-0003, Sawmill (Modification)	10/20/76	Addendum Issued
Benton	Alsea Lumber Co. 02-0003, Rock Crusher (Renewal)	10/8/76	Permit Issued
Benton	Oregon State University 02-2298, Boiler (Renewal)	10/22/76	Permit Issued
Benton	Willamette Industries, Inc. 02-7070, Veneer (Modification)	10/8/76	Permit Issued
Clackamas	Riverview Apartments 03-2559, Boiler (Existing)	10/18/76	Permit Issued
Clatsop	Hughes-Ransom Mortuary 04-0049, Incinerator (New)	10/22/76	Permit Issued
Crook	Prineville Sand & Gravel 07-0015, Concrete (Existing)	10/8/76	Permit Issued
Jackson	Georgia Pacific 15-0058, Charcoal Mfg. (Change of Ownership)	10/22/76	Permit Issued
Jackson	Central Point Elementary 15-0077, Incinerator (Existing)	10/8/76	Permit Issued
Josephine	Medford Corp. - Diamond Industries 17-0046, Furniture Mfg. (Existing)	10/22/76	Permit Issued
Josephine	Oregon State Highway Div. 17-0052, Incinerator (Existing)	10/22/76	Permit Issued
Klamath	Concrete Products, Inc. 18-0066, Rock Crusher (Existing)	10/8/76	Permit Issued
Lincoln	Lewis Shingle 21-0047, Shingle Mill (Existing)	9/27/76	Permit Issued
Lincoln	Kessler Shake Co. 21-0048, Shake Mill (Existing)	9/27/76	Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

October 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (61 - con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Linn	J. B. Rock Products, Inc. 22-7131, Crusher (Renewal)	10/8/76	Permit Issued
Linn	J. B. Rock Products, Inc. 22-7140, Concrete (Renewal)	10/8/76	Permit Issued
Marion	Pacific Building 24-0728, Boiler (Change of Ownership)	10/22/76	Permit Issued
Marion	Castle & Cooke Foods 24-4424, Boiler (Renewal)	10/22/76	Permit Issued
Marion	American Asphalt Paving Co. 24-4671, Asphalt Plant (Change of Ownership)	10/8/76	Permit Issued
Marion	McNary High School 24-4965, Boiler (Renewal)	10/8/76	Permit Issued
Marion	Willamette University 24-5790, Boilers (Renewal)	10/22/76	Permit Issued
Marion	Commercial Sand & Gravel 24-6008, Rock Crusher (Renewal)	9/27/76	Permit Issued
Marion	Silverton Foundry Co. 24-6304, Foundry (Renewal)	10/8/76	Permit Issued
Multnomah	Sunnyview Apts. 26-0121, Boiler (Existing)	10/22/76	Permit Issued
Multnomah	Serene Court Apts. 26-0144, Boiler (Existing)	10/22/76	Permit Issued
Multnomah	The Flintkote Company 26-1845, Asphalt Coating (Modification)	10/6/76	Addendum Issued
Multnomah	Western Steel Castings 26-1863, Foundry (Renewal)	10/22/76	Permit Issued
Multnomah	Oregon Steel Mills 26-1865, Steel Mill (Renewal)	10/8/76	Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

October 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (61 - con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Multnomah	Northwest Foundry Co. 26-1871, Foundry (Renewal)	10/8/76	Permit Issued
Multnomah	Union Carbide Corp. 26-1873, Steel Works (Modification)	10/1/76	Addendum Issued
Multnomah	U of O Health Sciences Center 26-2050, Boilers, Incinerators (Existing)	10/22/76	Permit Issued
Multnomah	Esco Corp. 26-2067, Foundry (Renewal)	9/29/76	Permit Issued
Multnomah	Esco Corp. 26-2068, Steel Foundry (Renewal)	9/27/76	Permit Issued
Multnomah	Publishers Paper Company 26-2075, Plywood (Modification)	10/18/76	Addendum Issued
Multnomah	Portland Community College 26-2322, Boiler (Existing)	10/22/76	Permit Issued
Multnomah	Riverview Abbey & Crematorium 26-2545, Incinerator (Existing)	10/22/76	Permit Issued
Multnomah	B & W Feed Company, Inc. 26-2607, Animal Feed (Modification)	10/1/76	Addendum Issued
Multnomah	Tri-Met 26-2967, Boiler (Existing)	10/22/76	Permit Issued
Multnomah	Nabisco, Inc. 26-2968, Boiler (Existing)	10/8/76	Permit Issued
Multnomah	Mt. Shop of Portland 26-2970, Boiler (Existing)	10/22/76	Permit Issued
Multnomah	Silver Court Apts. 26-2972, Boiler (Existing)	10/22/76	Permit Issued
Multnomah	Mayberry Hotel 26-2973, Boiler (Existing)	10/22/76	Permit Issued
Multnomah	Port of Portland 26-2974, Boiler (New)	10/22/76	Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

October 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (61 - con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Polk	Mico 27-6008, Grain Elevator (Change of Ownership)	10/20/76	Addendum Issued
Polk	Mico 27-6019, Grain Elevator (Change of Ownership)	10/20/76	Addendum Issued
Tillamook	Louisiana-Pacific Corp. 29-0019, Plywood (Modification)	9/23/76	Addendum Issued
Tillamook	Tillamook County Creamery Assoc. 29-0058, Animal Feed (Existing)	10/8/76	Permit Issued
Tillamook	S - C Paving 29-0060, Asphalt Plant (Existing)	9/27/76	Permit Issued
Washington	Western Foundry Company 34-1879, Foundry (Modification)	9/23/76	Addendum Issued
Washington	Tektronix, Inc. 34-2173, Boilers (Existing)	10/8/76	Permit Issued
Washington	Lite Rock Company 34-2180, Shale Expansion Plant (Modification)	10/22/76	Permit Issued
Washington	Tektronix 34-2638, Boilers (Existing)	10/22/76	Permit Issued
Washington	Portland Community College 34-2639, Boiler (Existing)	10/22/76	Permit Issued
Yamhill	McDaniel Grain & Feed Co. 36-6214, Animal Feed (New Source)	10/1/76	Addendum Issued
Portable	J. C. Compton Company 37-0078, Asphalt (Plant Renewal)	10/8/76	Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

October, 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (61 - con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Indirect Sources (6)</u>			
Clackamas	Clackamas Town Center, 6000+ parking spaces.	10/5/76	Final permit issued.
Clackamas	Fred Meyer Distribution Center, 800 spaces.	10/7/76	Final permit issued.
Marion	Chemeketa Community College, 492 spaces.	10/4/76	Final permit issued.
Multnomah	Water Tower Inn, 474 spaces.	10/15/76	Final permit issued.
Multnomah	Water Front Hotel, 324 spaces.	10/15/76	Final permit issued.
Clackamas	Lake Crest Apartments, 184 spaces.	10/21/76	Final permit issued.

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Management
(Reporting Unit)

October 1976
(Month and Year)

PLAN ACTIONS COMPLETED (6)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Lane	Lane County Volunteer Recycling Center New Site Construction Plan	9/27/76	Approved
Lane	Cascade Landfill Site New Site Construction & Operational Plan	10/10/76	Approved
Wallowa	Lostine Drop Box New Site. Construction & Operational Plan	10/15/76	Approved
Marion	Woodburn Sanitary Landfill Existing Site Operational Plan	10/20/76	Approved
Multnomah	Environmentally Hazardous Waste Collection Site New Site Construction & Operational Plan	10/26/76	Provisional Approval
Lane	Environmentally Hazardous Waste Collection Site New Site Construction & Operational Plan	10/26/76	Provisional Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Management
(Reporting Unit)

October 1976
(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	Fis. Yr.	Month	Fis. Yr.			
<u>General Refuse</u>							
New	1	5	1	4	3		
Existing			8	13	37	(*37)	
Renewals		4	2	7	4		
Modifications		2	2	6			
Total	1	11	13	30	44	191	194
<u>Demolition</u>							
New		2		3			
Existing				1			
Renewals	1	1			2		
Modifications							
Total	1	3	-	4	2	13	13
<u>Industrial</u>							
New		2	1	4	1		
Existing				2	11	(*8)	
Renewals	2	4	3	4	3		
Modifications	1	1	1	2			
Total	3	7	5	12	15	86	90
<u>Sludge Disposal</u>							
New		2		2			
Existing							
Renewals				2			
Modifications		1		1			
Total		3	-	5	-	9	9
<u>Hazardous Waste</u>							
New							
Authorizations	8	32	5	33	3		
Renewals							
Modifications							
Total	8	32	5	33	3		
<u>GRAND TOTALS</u>	<u>13</u>	<u>59</u>	<u>23</u>	<u>84</u>	<u>64</u>	<u>300</u>	<u>307</u>

*Sites operating under temporary permits until regular permits are issued.

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Management
(Reporting Unit)

October 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (23)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>General Refuse (Garbage) Facilities</u> (13)			
Union	Elgin Disposal Site Existing facility	10/1/76	Permit issued.
Union	North Powder Disposal Site Existing facility	10/1/76	Permit issued.
Union	Union Disposal Site Existing facility	10/1/76	Permit issued.
Klamath	Crescent Landfill Existing facility	10/1/76	Permit amended.
Union	LaGrande Landfill Existing facility	10/1/76	Permit issued.
Marion	Woodburn Landfill Existing facility	10/11/76	Permit amended.
Columbia	Mickey's Landfill Existing facility	10/13/76	Permit issued. (renewal)
Lane	Glenwood Receiving Station New facility	10/13/76	Permit issued.
Wasco	No. Wasco County Landfill Existing facility	10/13/76	Permit issued. (renewal)
Malheur	Adrian Landfill Existing facility	10/25/76	Permit issued.
Malheur	Brogan-Jamieson Landfill Existing facility	10/25/76	Permit issued.
Malheur	Ironside Disposal Site Existing facility	10/25/76	Permit issued.
Malheur	Willowcreek Disposal Site Existing facility	10/25/76	Permit issued.

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Management
(Reporting Unit)

October 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (continued)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Demolition Solid Waste Facilities</u> (0)			
<u>Sludge Disposal Facilities</u> (0)			
<u>Industrial Solid Waste Facilities</u> (5)			
Clackamas	Clackamas Sorting Yard Existing facility	10/13/76	Permit issued. (renewal)
Clackamas	Rock Quarry Landfill Existing facility	10/13/76	Permit issued. (renewal)
Curry	Brookings Plywood Co. Existing facility	10/18/76	Permit issued. (renewal)
Crook	Les Schwab Tire Site Existing facility	10/25/76	Permit amended.
Jackson	Denman Wildlife Area New facility	10/25/76	Permit issued.
<u>Hazardous Waste Facilities</u> (5)			
Gilliam	Chem-Nuclear Systems, Inc. Existing facility	10/4/76	Disposal authoriza- tion approved.
Gilliam	Chem-Nuclear Systems, Inc. Existing facility	10/7/76	Two (2) disposal authorizations approved.
Gilliam	Chem-Nuclear Systems, Inc. Existing facility	10/11/76	Disposal authoriza- tion approved.
Gilliam	Chem-Nuclear Systems, Inc. Existing facility	10/13/76	Disposal Authoriza- tion approved.



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB
GOVERNOR

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. C, December 20, 1976, EQC Meeting
Tax Credit Applications

Attached are review reports on 15 requests for Tax Credit action. These reports and the recommendations of the Director are summarized on the attached dable.

Director's Recommendation

It is recommended that the Commission act on the 15 Tax Credit requests as follows:

1. Issue certificates for 14 applications: T-482R, T-524R, T-808, T-818, T-821, T-823R, T-824, T-837, T-838, T-846, T-847, T-848, T-849, T-850.
2. Reissue Certificate No. 640 (T-718) to reflect \$3,207.00 more to cover an error in actual cost reported by Willamette Industries, Inc. in their original application. This brings the total cost to \$190,724.87.

Michael Young
for

WILLIAM H. YOUNG
Director

/cs
12-9-76

Attachments
Tax Credit Summary
Tax Credit Review Reports



Contains
Recycled
Materials

TAX CREDIT SUMMARY

Proposed December 1976 Totals:

Air Quality	\$1,820,279.93
Water Quality	7,410,794.00
Solid Waste	81,821.58
	<u>\$9,312,895.51</u>

Calendar Year Totals to Date:
(Excluding December Totals)

Air Quality	\$14,437,926.34
Water Quality	7,136,730.15
Solid Waste	6,950,977.50
	<u>\$28,525,633.99</u>

Total Certificates Awarded (monetary values)
Since Inception of Program (excluding
proposed December certificates)

Air Quality	\$126,764,835.14
Water Quality	98,629,097.93
Solid Waste	27,260,704.97
	<u>\$252,654,638.04</u>

TAX CREDIT APPLICATIONS

<u>Plant Location</u>	<u>Appl. No.</u>	<u>Facility</u>	<u>Claimed Cost</u>	<u>% Allocable to Pollution Control</u>	<u>Dist. Recd.</u>
Industries	T-842R	Aero-Vac Model AV-105 baghouse for system #602	\$ 13,049.04	100%	I
Industries	T-524R	Roof & walls to enclose plywood trim storage point	12,883.80	100%	I
Industries	T-718	Electric power feeder for Becker Sandair filter	190,724.87*	100%	R
al Paper	T-808	Noncondensable gas incinerator	27,008.32	100%	I
ing	T-818	Jemco Airlift, installed	23,647.00	100%	I
Industries	T-821	Cleaver Brooks sanderdust and natural gas boiler and associated equipment	51,575.00	100%	I
Industries	T-823R	Metering bin for wood fines	34,835.47	100%	I
Industries	T-824	Super Sucker Industrial Vacuum Loader	47,213.43	100%	I
h Chang	q T-837	Pipeline from lime slaker to lime use areas	6,200.00	100%	I
h Chang	T-838	Chemical feeding and metering devices	1,681.00	100%	I

reissue of Pollution Control Facility Certificate No. 640 for \$3,207.00 more to cover an error in the
 ted by Willamette Industries, Inc.

TAX CREDIT APPLICATIONS

<u>Plant Location</u>	<u>Appl. No.</u>	<u>Facility</u>	<u>Claimed Cost</u>	<u>% Allocable to Pollution Control</u>	<u>Div. Recd.</u>
Cedar Prod.	T-846	Use of cedar wastes to generate wood chips	\$81,821.58	100%	I
rbach	T-847	Process secondary treatment system	7,402,913.00	100%	I
n Co.	T-848	Lime mud oxidation system	43,061.00	100%	I
rbach	T-849	Secondary heavy black liquor oxidation system	456,812.00	100%	I
rbach	T-850	Noncondensable gas system, etc.	919,740.00	100%	I

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Willamette Industries, Inc.
3800 First National Bank Tower
Portland, Oregon 97204

The applicant owns and operates the Duraflake particleboard plant in Millersburg, north of Albany, Oregon.

2. Description of Claimed Facility

The facility described in this application is a baghouse used to clean wood dust emissions from the system's #602 cyclone. It consists of:

a. Aero-Vac baghouse, model AV-105	\$12,079.00
b. Jims Electric for wiring	567.00
c. Plant labor for preparation	403.04

The claimed facility was started, completed, and placed in operation in September, 1973. The prior approval requirement was not yet effective.

Facility cost: \$13,049.04 (Accountant's certification was provided).

Certification is claimed under the 1969 Act with 100% allocated to pollution control.

3. Evaluation of Application

The Mid-Willamette Valley Air Pollution Authority gave approval to this project in its August 1, 1973, letter. It is serving to reduce wood dust emissions by about 30 lbs/hr. The fuel value of the wood fines captured is more than offset by the facility's operating costs.

It is concluded that 100% of the cost is eligible for air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$13,049.04 with 80% or more of the cost allocated to pollution control be issued for the facility claimed in Tax Application T-482R.

PBB:ahe
11-26-76

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Willamette Industries, Inc.
3800 First National Bank Tower
Portland, Oregon 97204

The applicant owns and operates a particleboard plant, known as the Duraflake Division, in Millersburg on the north side of Albany, Oregon.

2. Description of Claimed Facility

The facility is the enclosing of a recycling load point where plywood trim is stored. It consists of:

a. Wall and cover	\$7,827.98
b. Lumber	1,842.82
c. Fire protection system	1,953.00
d. Roofing	1,260.00

The project was begun on April 23, 1973 and completed on July 6, 1973. Tax credit law does not require prior approval for projects begun before October 5, 1973.

Willamette Industries claims 100% of the cost under current statutes.

Facility Costs: \$12,883.80 (accountant's certification was provided).

3. Evaluation of Application

Mid-Willamette Valley Air Pollution Authority required Duraflake to enclose this area and approved plans for the project on April 23, 1973. While the value of the material is improved slightly by keeping it out of the rain, the value received is negligible. The project lessened the emission of fugitive dust. The plant is not in compliance with the Department's fugitive dust rules, but this small project is one of the many projects required to bring the plant into compliance.

It is concluded that 100% of the project cost can be allocated to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Certificate bearing the cost of \$12,883.80 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-524R.

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Willamette Industries, Inc.
3800 First National Bank Tower
Portland, Oregon 97204

The applicant owns and operates a plywood plant in Dallas, Oregon.

2. Description of Claimed Facility

The claimed facility is a feeder for an electric motor to move air through a Becker Sandair filter which cleans the blue haze from the plant's three veneer dryers. The item's cost is \$3,207.00.

The total cost of the Becker Sandair Filter was \$187,517.87 (excluding this feeder) which was granted by the Environmental Quality Commission on December 12, 1975 by Certificate No. 640.

The facility was constructed in 1975 and had prior approval from Mid-Willamette Valley Air Pollution Authority.

Facility costs: Total is \$190,724.87 but this amending action is for \$3,207 (invoices were provided).

3. Evaluation of Application

Willamette Industries made an error in not including a \$3,207 cost in the Tax Credit Application No. 718. Upon discovering the error, they requested an amendment to their tax credit certificate.

The cost of the feeder to the electric motor was reviewed. It is a legitimate cost, not before included. It is 100% allocable to air pollution control.

4. Director's Recommendation

It is recommended that Pollution Control Facility Certificate No. 640 be re-issued in the amount of \$190,724.87 to cover an error in actual cost made by Willamette Industries.

PBB:1b

11/23/76

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

International Paper Company
Gardiner Paper Mill
P.O. Box 854
Gardiner, Oregon 97441

The applicant owns and operates an unbleached kraft pulp and liner board mill at Gardiner, Oregon.

2. Description of Claimed Facility

The facility claimed in this application consists of a non-condensable gas incinerator which burns the malodorous digester and evaporator gases when the lime kiln is not operating. The facility costs consist of:

a. Non-condensable burner	\$15,050.77
b. Flame arrester	148.10
c. Concrete foundations	149.88
d. In plant company labor	5,693.31
e. Miscellaneous material	5,966.26

Construction of the claimed facility was begun in October, 1975 and was completed in December, 1975. A Notice of Construction and Application for Approval was filed with and approved by the Department on March 25, 1975.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility cost: \$27,008.32 (accountant's certification was provided).

3. Evaluation of Application

International Paper Company was required to install an alternate device to continually treat the digester and evaporator non-condensable gases by their Air Contaminant Discharge Permit. Before the installation the non-condensable gases were usually incinerated in the lime kiln but when the lime kiln was not operating, the gases were diverted to the atmosphere. The installation of the incinerator allows incineration of these gases when the kiln is down. The Department has inspected the facility and has determined that it's performance is satisfactory. The company does not receive any economic return from this facility. The Department concludes that 100% is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$27,008.32 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-808.

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Morton Milling Company
500 Rossanley Drive
Medford, Oregon 97501

The applicant owns and operates a livestock feed manufacturing plant in Medford, Oregon.

2. Description of Facility

The facility claimed in this application consists of a pneumatic feed transfer and air cleaning device:

a. Jemco air lift and equipment	\$14,913
b. Installation labor	6,120
c. Installation labor for electrical	1,094
d. Electrical materials	870
e. Crane rental and freight	650

The applicant began construction on January 19, 1976 and completed and placed it in operation on January 29, 1976. The project was submitted to the Department for approval on November 5, 1975; it was approved on NC 671 on November 20, 1975. Therefore the prior approval requirement of the law was fulfilled.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility costs: \$23,647 (Accountant's certification was provided).

3. Evaluation of Application

The applicant was required by the Department to clean up the dust emissions from his cyclones. The claimed facility is the first of three projects to remove all his cyclones from service and to achieve baghouse control by 1978. The emissions will eventually fall from over 10 lb/hr to less than 3 lb/hr.

The value of the recycled feed which was formerly emitted is less than the operating cost of catching it.

It is concluded that the claimed facility reduces air pollution and is 100% allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$23,647 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-818.

PBB:ds

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Willamette Industries, Inc.
3800 First National Bank Tower
Portland, Oregon 97204

The applicant owns and operates a plywood plant called the Griggs Division, 5 miles northeast of Lebanon, Oregon.

2. Description of Claimed Facility

The claimed facility is a sanderdust-fired boiler which was installed to burn sanderdust formerly incinerated in a Wigwam wood waste burner. The project consists of:

a. Cleaver Brooks Model CB400-300-150 boiler, 300 bhp	\$33,394.84
b. Allied Systems Co. fuel bin	7,343.00
c. Chase Co. surge bin, blower system, piping and fittings	4,470.33
d. Foundations	2,429.85
e. Miscellaneous equipment and services	2,990.23
f. Plant payroll charges	947.24

The project was begun in December 1971 and completed and placed in operation in June 1972. Willamette Industries began the project before Oct. 5, 1973, so prior approval is not required for tax credit.

Willamette Industries claims 100% of the cost for air pollution control under the 1969 act.

Facility costs: \$51,575 (accountant's certification was provided).

3. Evaluation of Application

Mid-Willamette Air Pollution Authority requested the applicant to control or shut down his Wigwam waste burner. The plant's sanderdust had to be diverted from this Wigwam. The plant's Clayton boilers could not be adapted to burn it. Therefore a new boiler had to be purchased.

The boiler has no emission controls on the exit gas. The fuel and surge bins served to minimize particulate emissions by evening out the fuel supply.

The boiler was tested and showed compliance to the Department's particulate concentration rule in 1972. It has been observed to be operating in compliance with the Department's opacity rule since then.

The sanderdust has a fuel value and the boiler makes steam for the plant. These are possible reasons why tax credit should not be given. In this case, however, the other boilers were providing steam for the plant using natural gas. Since they could not be modified to handle sanderdust, this boiler had to be built. Willamette Industries presented the costs and benefits of this boiler showing no return on investment for this project.

It is concluded that the claimed project enabled the shut-down of a Wigwam burner and that 100% of its costs can be allocated to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the costs of \$51,575 with 80% or more of the cost allocated to pollution control be issued for the facility claimed in Tax Credit Application T-821.

PBB:ve

State of Oregon
 Department of Environmental Quality
 Tax Relief Application Review Report

1. Applicant

Willamette Industries, Inc.
 3825 1st National Bank Tower
 1300 S. W. Fifth Avenue
 Portland, Oregon 97204

The applicant owns and operates a particleboard plant known as Duraflake in Millersburg, north of Albany, Oregon.

2. Description of Claimed Facility

The claimed facility is a metering bin for wood fines, located between the vibrating shaker screens and the dryers. It consists of:

- | | |
|-------------------------------|-------------|
| a. Carothers Co. metering bin | \$32,636.02 |
| b. Claude Buerge Construction | 2,199.45 |

The claimant refers to it as part of Albany Project 23-452.

The project was begun December 15, 1973 and completed and placed in operation on September 1, 1974. The Mid-Willamette Valley Air Pollution Authority was aware of the applicant's efforts to control upset conditions at the plant; therefore the prior approval requirement was fulfilled in an equivalent way.

Willamette Industries claims 100% of the cost for pollution control under current statutes.

Facility costs: \$34,835.47 (Accountant's certification was provided).

3. Evaluation

Willamette Industries' Duraflake plant experienced a plug-up condition 22 times in 10 months prior to installing this project. The plug-ups would billow great clouds of sawdust fines into the air as fugitive emissions. Project 23-452 put in a metering bin so vibrating shaker screen plug-ups would not plug-up the whole process even back to the dryers. The metering bin has isolated the plug-up condition at the shaker screens, improving the plant's severe fugitive dust emissions.

A Willamette Industries letter dated November 18, 1976 amended the original application deleting two Aero-Vac AV-96 bag houses from the application. The baghouses were removed from service in 1976 (with the Department's approval) because of a fire problem.

It is concluded that installation of the metering bin is 100% allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$34,835.47 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-823R.

PBB:ds

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Willamette Industries, Inc.
3800 First National Bank Tower
Portland, Oregon 97204

The applicant owns and operates a particleboard plant known as Duraflake in Millersburg, north of Albany, Oregon.

2. Description of Claimed Facility

The claimed facility is a vacuum truck used to clean up the accumulated wood dust emissions around the particleboard plant. It consists of:

- | | |
|--|-------------|
| a. Model 10 16 series, Super Sucker Industrial Vacuum Loader on a 1973 Ford LN-900 chassis | \$44,685.00 |
| b. Parts and accessories | 1,329.48 |
| c. Freight | 1,198.95 |

Action on acquiring the truck began on November 28, 1972, but the truck was not placed in operation until May 15, 1974. The prior approval requirement of the law was fulfilled by Mid-Willamette Valley Air Pollution Authority's knowledge of the project.

Willamette Industries claims 100% of the project's cost for air pollution control under current statutes.

Facility costs: \$47,213.43 (Accountant's certification was provided).

3. Evaluation of Application

Mid-Willamette Valley Air Pollution Authority issued a Stipulation and Order No. 72-2492-68 on November 28, 1972 to have Duraflake clean up many emissions from the plant. Item 3.a. was for a vacuum truck. This requirement was re-iterated in an Air Contaminant Discharge Permit 22-0143 issued in 1973.

The truck collects about 65 cubic yards of wood waste per day. The collected waste is too dirty to be returned to the process and must be disposed of as mulch. The value of mulch is more than offset by the operating and depreciation cost of the vacuum truck. The removal of this material decreases fugitive emissions from the plant site.

It is concluded that 100% of the cost of this facility can be allocated to pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$47,213.43 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-824.

PBB:1b

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Teledyne Wah Chang Albany
Division of Teledyne Industries, Inc.
P. O. Box 460
1600 N. E. Old Salem Road
Albany, Oregon 97321

The applicant owns and operates a facility for the primary production of reactive metals and alloys as mill products. The metals produced are zirconium, hafnium, tantalum and niobium.

2. Description of Claimed Facility

The claimed facility consists of a pipeline from the lime slaker to lime use areas where pH is adjusted to meet NPDES permit conditions. Approximately 1,000 feet of three inch and 600 feet of two inch pipe were installed along with valves and fittings.

Construction of the claimed facility was completed and placed in operation in November of 1972.

Certification is claimed under the 1969 Act with 100% allocated to pollution control.

Facility Cost: \$6,200 (Accountant's certification was provided with the application.)

The facility's only purpose is to supply pollution control equipment with milk of lime.

3. Evaluation of the Application

The facility is a necessary part of the company's pollution control projects. No profit to the company is derived from this facility.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the claimed facility bearing the actual cost of \$6,200 with 80% or more allocable to pollution control.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Teledyne Wah Chang Albany
Division of Teledyne Industries, Inc.
P. O. Box 460
1600 N. E. Old Salem Road
Albany, Oregon 97321

The applicant owns and operates a facility for the primary production of reactive metals and alloys as mill products. The metals produced are Zirconium, Hafnium, Tantalum and Niobium.

2. Description of Claimed Facility

The claimed facility consists of equipment for adding corrosion inhibiting chemicals to the cooling tower which serves the Distillation Column Heat Exchanger. Chemical feeding and metering devices were installed.

The claimed facility was completed and placed in operation in March, 1972.

Certification is claimed under the 1969 Act with 100% allocated to pollution control.

Facility cost: \$1,681 (Accountant's certification was provided).

The facility was an addition to the ammonia recovery plant of which the purpose is to recycle chemicals that would otherwise be pollutants in the effluent and is thus considered to be a pollution control device.

3. Evaluation of Application

The Company claims the facility reduced corrosion and deposits in the cooling tower and heat exchanger units, increasing heat transfer and plant efficiency. Staff concurs. There is no profit derived from the installation of this facility.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the claimed facility bearing the actual cost of \$1,681 with 80% or more allocable to pollution control.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Nordstrand Cedar Products, Inc.
33391 Brewster Road
Lebanon, Oregon 97355

The applicant owns and operates cedar products manufacturing plant at Lebanon, Oregon, Linn County.

2. Description of Facility

The claimed facility uses cedar waste material generated during plant operations and consists of:

a. 58" Kwik chipper with 150 hp motor	\$23,779.50
b. 30" vibrating conveyor	5,060.00
c. Peerless 30 unit mono bin	14,140.96
d. MDI electronic metal detector	2,153.25
e. Installation costs	24,494.06
f. Materials and miscellaneous items	<u>12,193.81</u>
TOTAL PROJECT COST	81,821.58

The claimed facility was constructed beginning May 1976 and completed in June 1976.

Certification is claimed under the 1973 Act amended in 1975 with 100% of the cost allocated to pollution control for utilization of Solid Waste.

Facility costs: \$81,821.58 (Accountant's certification was attached to application).

3. Evaluation of Application

Nordstrand Cedar Products Company submitted a Request for Preliminary Certification for Tax Credit to the Department, which was approved on May 25, 1976.

Prior to installation of the claimed facility, the waste wood generated as a result of cedar products manufacturing was deposited in a mound adjacent to the mill. All the sawdust and bark (approximately 40 cubic yards/day) are donated to local farmers for animal bedding. All wood chips generated from the waste wood (approximately 60 units/week) are presently sold to Georgia-Pacific Corporation on contract. At the present time, 10 units of wood waste are utilized daily by the claimed facility. The company is planning to purchase a front-end loader which will allow them to utilize previously accumulated wood waste.

The Department concludes that the claimed facility meets the requirements of ORS 468.165(1)(b) and is therefore eligible for certification.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued pursuant to ORS 468.165(1)(b) for the claimed facility in application T-846, such certificate to bear the actual cost of \$81,821.58.

MS:sa

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Crown Zellerbach Corporation
Wauna Division
Clatskanie, Oregon 97016

The applicant owns and operates an integrated pulp and paper mill capable of producing 800 tons per day of pulp manufactured by the kraft process; 300 tons per day of groundwood pulp, and 750 tons per day of various grades of paper. The mill also has a five stage bleach plant. Some pulp is shipped to other locations.

2. Description of Claimed Facility

The claimed facility is a secondary treatment system using a conventional air activated sludge process. Included in the facility is a 12 MGD bleach effluent pumping station, a 15.3 million gallon equalizing pond, a 13.5 million gallon aeration pond containing 36 75 horsepower mechanical aerators, two 225 foot diameter secondary clarifiers, a 40 MGD sludge recycle pumping system, four 11.5 foot diameter by 16 foot long vacuum coil filters with associated equipment for sludge dewatering, a pH neutralization system, nutrient addition system, necessary pumps, piping, instrumentation, wiring and control, storage tanks and buildings.

Specific new items of land, materials, machinery and equipment incorporated into the claimed facility consist of the following:

1. Site Preparation

- a. clearing
- b. drainage diversion
- c. develop temporary sludge disposal site

2. Site Improvements

- a. roads and paving
- b. landscaping
- c. construction entrance road

3. Filter Building

4. Equipment

- a. bleach effluent pump station
- b. holding pond
- c. aeration system
- d. secondary clarifiers (2)
- e. sludge filters (4)
- f. sludge conveyors
- g. sludge storage bin
- h. air compressors
- i. ammonia storage
- j. phosphoric acid storage
- k. sulphuric acid storage
- l. caustic storage
- m. polymer storage
- n. sludge pond system
- o. diversion boxes and tie to existing primary system
- p. transfer pumps
- q. piping and insulation
- r. power distribution and lighting
- s. control instrumentation and testing
- t. mobile equipment - sludge handling

5. Engineering

The claimed facilities were completed October 30, 1976, but were operating prior to completion (December, 1975). Certification is claimed with 100% of the cost allocated to pollution control.

Facility cost: \$7,402,913 (Accountant's certification was attached to the application).

3. Evaluation of Application

Total BOD discharge from combined process sewers has been reduced from 80,000 pounds per day to 11,000 pounds per day, and suspended solids have been reduced to less than 25,000 pounds per day. Staff has verified that the facility is operating efficiently.

There is no income derived from the claimed facility so that the only benefits are pollution control.

Staff considers that requirements of prenotification of construction were met by the applicant. Department of Environmental Quality NPDES Waste Discharge Permit No. 1845-J required secondary treatment to meet U.S. EPA standards.

DEQ letter of December 31, 1974 approved the project.

4. Director's Recommendation

It is recommended that a Pollution Control Certificate be issued for the facilities claimed in application T-847, such certificate to bear the actual cost of \$7,402,913 with 80% or more of the cost applicable to pollution control.

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

American Can Company
Halsey Mill
P. O. Box 215
Halsey, Oregon 97348

The applicant owns and operates a bleached Kraft pulp and paper mill near Halsey, Oregon.

2. Description of Claimed Facility

The facility claimed in this application consists of a lime mud oxidation system. The facility costs consist of:

a.	Tank	\$17,155
b.	Foundation	9,390
c.	Agitator	4,024
d.	Eductors	729
e.	Electrical components	1,046
f.	Valves and piping	1,349
g.	Miscellaneous material, freight and company labor	9,368

Construction of the claimed facility was started on August 15, 1974 and was completed and the facility placed in operation in November, 1974. The plans and specifications were approved by the Department fulfilling the prior approval requirement.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility cost: \$43,061.00 (Accountant's certification was provided).

3. Evaluation of Application

American Can Company was required to reduce Total Reduced Sulfur (TRS) emissions from their lime kiln by their Air Contaminant Discharge Permit. A part of the program to achieve this reduction was the installation of the lime mud oxidation system. The system converts the sulfides in the lime mud into a compound that will not release the sulfides in the kiln. Thus the sulfides are not emitted as odorous gases from the kiln.

The claimed facility is operating satisfactorily and has reduced lime kiln TRS emissions by 72 pounds per day.

The operating cost of the claimed facility is greater than the value of the sulfur retained in the pulping chemicals.

Tax Credit Review Report
Application No. T-848
12/6/76

The Department concludes that 100% of the cost of this facility is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$43,061.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-848.

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

Crown Zellerbach Corporation
Wauna Division
Clatskanie, Oregon 97016

The applicant owns and operates a bleached kraft pulp and paper mill near Westport, Oregon.

2. Description of Facility

The facility claimed in this application consists of a secondary heavy black liquor oxidation system. The facility costs consist of:

a.	Piping, Valves and Fittings	\$121,765
b.	Blower building	27,197
c.	Tank and Separator	91,895
d.	Blowers	42,998
e.	Pumps	5,209
f.	Insulation	27,890
g.	Instrumentation	50,048
h.	Electrical	29,906
i.	Engineering	48,113
j.	Miscellaneous material and labor	11,791

Construction of the claimed facility was started in September, 1973 and completed in May, 1975. The facility was placed in operation in March, 1974. A "Notice of Construction and Application for Approval" was filed and approved by the Department on May 5, 1973.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility cost: \$456,812.00 (Accountant's certification was provided).

3. Evaluation of Application

Crown Zellerbach Corporation was required to reduce Total Reduced Sulfur (TRS) emissions from their recovery furnace by their Air Contaminant Discharge Permit. They accomplished this by installing a secondary black liquor oxidation system which increases the black liquor oxidation efficiency. The black liquor oxidation system converts the sulfides in the black liquor into a compound that will not release the sulfur when the liquor is evaporated by the recovery furnace exhaust gases in the direct contact evaporator. The prevention of the release of the sulfur will eliminate the formation of most of odorous gases.

The claimed facility is operating satisfactory and it has reduced TRS emissions by 420 pounds per day.

The operating cost of the claimed facility is greater than the value of the sulfur retained in the pulping chemicals. It is concluded that 100% of the cost of this facility is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$456,812.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-849.

CRC:ds

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

Crown Zellerbach Corporation
Wauna Division
Clatskanie, Oregon 97016

The applicant owns and operates a bleached kraft pulp and paper mill near Westport, Oregon.

2. Description of Facility

The facilities claimed in this application consist of the following:

- a. Non-condensable gas collection system.
- b. Auxiliary non-condensable gas incinerator.
- c. Brown stock washer vent scrubber.

The costs of the facilities consist of:

- a. Non-condensable gas collection system.

1. Feeder vent separator	\$ 1,927
2. Foam Breakers	19,122
3. Moisture separator	12,456
4. Pump and Piping	181,653
5. Wiring and Control	5,154
6. Instrumentation	4,000
7. Demolition, standby equipment and painting	4,519
	\$228,831

- b. Auxiliary non-condensable gas incinerator.

1. Incinerator	\$ 40,098
2. Fans	15,729
3. Piping	88,932
4. Insulation	1,400
5. Instrumentation	32,916
6. Wiring and Control	35,592
7. Scrubber	16,320
8. Standby equipment and painting	3,018
	\$234,005

c. Brown stock washer vent scrubber.

1. Duct work	\$ 68,848
2. Fan	33,127
3. Scrubber and Stack	71,924
4. Pump - Scrubber recirculation	5,815
5. Piping and Valves	110,276
6. Insulation	4,590
7. Wiring and Control	27,598
8. Instrumentation	24,980
9. Demolition and equipment relocation	2,520
10. Standby equipment and painting	9,626
	<hr/>
	\$359,304

d. Engineering for the three projects \$ 97,600

Construction of the claimed facilities was started in January, 1975. The non-condensable gas system and the auxiliary non-condensable incinerator were completed and placed in operation in July, 1975. The brown stock washer vent scrubber was completed and placed in operation in February, 1976. The plans and specifications for these facilities were approved by the Department fulfilling the prior approval requirement.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

3. Evaluation of Application

Crown Zellerbach Corporation was required to reduce TRS emissions from "other sources" (digester feeder vents, foam tank vents and brown stock washer vents) by their Air Contaminant Discharge Permit. The company was also required to install an auxiliary incinerator for the non-condensable gases by their Air Contaminant Discharge Permit.

The claimed facilities decrease the emission of odorous gases in the following ways:

- a. The non-condensable gas collection system conveys the gases from the digester feeder vents and the foam tank vents to the lime kiln or auxiliary incinerator where they are incinerated.
- b. The auxiliary non-condensable gas incinerator provides continuous treatment of non-condensable gases by allowing the company to burn the gases in the incinerator when the lime kiln is down. Before the incinerator was placed in operation the non-condensable gases were emitted untreated to the atmosphere when the kiln was down for repair and the rest of the mill operating.
- c. The brown stock washer vent scrubber scrubs the brown stock washer vent gases with chlorine and caustic to reduce TRS emissions.

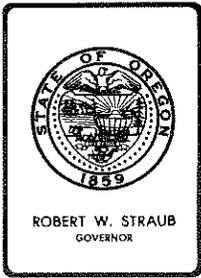
The Department has inspected the facilities and has determined that their performance is satisfactory.

The company does not receive any economic return from any of the facilities. It is concluded that 100% of the cost of the facilities is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$919,740.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-850.

CRC:ds



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item D - Oregon CUP Awards, Recommendations for Awards by Oregon CUP Awards Screening Committee

The Oregon CUP Award (Cleaning Up Pollution) Program, instituted in 1972, gives recognition to any industry, organization, institution, corporation, governmental unit or individual for outstanding effort in preventing or cleaning up pollution in Oregon. These efforts must be notable and exceptional in the field of endeavor of the nominee.

One purpose of the award is to identify the Oregon Companies which have demonstrated special concern for environmental quality and through imaginative and innovative action have made notable contributions to the State's quality of life. Consumers who are made aware of this extra effort may wish to patronize companies authorized to display the Oregon CUP Award insignia on their product, letterhead, and advertising.

Awards are presented on the basis of DEQ evaluation of environmental quality enhancement beyond the requirements of the standards. The industrial awards are given initially for a period including the year following the first presentation and then are renewable on application and after an evaluation of continuing effort to maintain or improve upon past performance.

Nominations for new awards and applications for renewal are considered by the nine-member Oregon CUP Award Screening Committee appointed by the DEQ Director representing a public at large; environmentalists, industry and organized labor.

The Oregon CUP Award has thus far been presented to five companies and seven individuals. Applications for renewal for calendar year 1977 were received from the five industrial recipients and new nominations were received from seven additional institutions and industries. The Public Information Staff solicited comment and recommendations from region offices and divisions on each of the applicant's environmental quality control activities during the past year.

The Oregon CUP Award Screening Committee met at DEQ headquarters on October 7 and on November 5 to determine which nominees should be recommended for an Oregon CUP Award. Technical staff persons from the Department met with the Committee and answered the questions raised by Committee members. As a result of the Committee's meetings and review of information



Contains
Recycled
Materials

supplied to it by the staff, it voted to recommend to the Environmental Quality Commission, renewal of the Oregon CUP Award for American Can Company, ESCO Corporation, Publishers Paper Company; to issue new awards to Crown Zellerbach Pulp and Paper - Wauna Mill, Mt. Angel Meat Company, and to Bohemia Bark Process and Pilot Plant in Eugene; institutional awards to Douglas County and to the Portland Recycling Team. The Committee also recommends Letters of Commendation be sent to Cascade Construction Company, RIM (Recycling for Independence-Monmouth), and Willamina Lumber Company for good efforts in the continued protection of Oregon's environment.

American Can Company - Halsey Plant

Background

American Can Company was one of the first two recipients of the Oregon CUP Award, made initially in 1972 as recognition of the technology employed in the design and construction of the Company's tissue and pulp mill located at Halsey. Prior to the start of construction, there was considerable public concern expressed about the location of the mill in the Willamette River Valley because of the limited capacity of the river system to dispose of water-borne industrial effluents.

American Can Company pledged to meet every existing Oregon pollution control requirement. In its initial year of production (1970) and during 1971, the mill operation was tuned to achieve the highest degree of water waste treatment and air contaminant control available in the industry. The one pollution problem remaining in evidence concerned odors from the mill's lime kiln emissions. There was, however, an industry-wide lack of technical information on the formation of Total Reduced Sulfur (TRS) in lime kiln facilities, and a consequent lag in control strategies.

Although the company's efforts in 1974 to reduce TRS emissions resulted in its meeting 1975 prescribed limits, the odor problem remained as the CUP Award Screening Committee considered - and recommended - renewal of the Award for the current calendar year.

During the 1974-1975 award period, American Can Company strived to maintain and improve the treatment of wastes and air contaminants at its Halsey mill, with special attention to odor control at the lime kiln. As a result of the lime mud oxidation project, which moved from the trial stage to full utilization with installation of the mud oxidation tank, TRS emissions have been reduced below the 1975 limit. At the same time, monitoring reliability was investigated and secured.

DEQ review of American Can, Halsey, NPDES Waste Discharge Permit and Waste Discharge Monitoring Reports indicates no major violations occurred; the only instances where limits were exceeded were reported for three days during September, 1974, for slightly elevated BOD discharges due to increased pond loadings and reduced treatment efficiency attributable to use of some hardwoods in addition to the softwoods normally utilized. There has been no recurrence of this problem since September 1974.

The Halsey mill participated in an industry effort to analyze the significance of sulfur dioxide emissions by monitoring gaseous emissions from its Recovery Furnace. Reduced emission levels in the Recovery Furnace,

reported in 1974 as a result of precipitator modifications, have continued since the report. Process control monitoring with the Lear-Siegler Transmissometer helped achieve a high level of particulate removal. A program which provides daily servicing and scheduled outages for cleaning and inspection was developed for formal precipitator preventive maintenance.

DEQ Midwest Region staff notes that American Can Company, with the cooperation of its staff, has strived to keep a clean environment on the grounds outside the plant facilities.

1975-76 Evaluation

American Can Company's Halsey pulp mill has been from its very planning stages a model mill from an environmental standpoint. Many "first-in-industry" systems were incorporated in the mill's design and, as a result, this mill was the recipient of one of the first Oregon CUP Awards. Many innovations in pollution control, primarily in the area of Air Quality (for example the lime mud oxidation system cited in last year's award) have resulted in the awarding of the Oregon CUP each year since its inception.

The progressive attitude toward pollution control shown by American Can in the past continued during the July 1975 to July 1976 period. While no new capital projects came on line during that period, considerable time, manpower, and skill was expended in several mill projects.

One of the most recent projects has resulted, according to the latest monitoring data, in an additional 1% reduction in the BOD of the treated mill effluent. The project involved the seemingly simple raising of the liquid level in the secondary ponds to increase detention time and to provide a 93% BOD removal as compared to the previous and exemplary removal of 92%. The maintenance associated with the increased secondary pond liquid level, particularly the increased surveillance necessary to avoid accidental spills, make this system somewhat tricky to operate. The results -- about 300 pounds per day less BOD discharged -- are, however, worth the effort.

Earlier this year a pilot plant for the reclamational fiber from the mill sewer was set up and a good deal of testing done to establish the efficiency and economic advisability of full-scale installation. Tests upheld the viability of the fiber reclaim project and, at this time, funding for the purchase of equipment has been requested from the home office. A significant reduction in the loading on the wastewater treatment system is anticipated on startup of this new fiber reclamation system.

The performance monitoring of the recently (February 1975) installed lime mud oxidation system is showing that system to be most effective in Total Reduced Sulfur (TRS - compounds of sulfur responsible for characteristic pulp mill odor) elimination. The American Can mill has been in continuous compliance with its TRS effluent limitations. The staff of the mill are presently assisting members of ITT Barton and the NCASI in the development of improved continuous TRS monitoring instruments.

Last November the American Can staff assisted the E.C. Jordan Company - EPA Contractors - in a study of pulp mill effluent color to be used in the development of Phase II effluent guidelines for the industry.

The mill participated in several studies conducted by the NCASI, specifically to identify sources of general process losses, brown stock washing losses, and BOD losses from the black liquor evaporating system.

American Can also participated in a comparative particulate testing program with the Department (Air Quality Group) to make an error analysis of the particulate sampling procedure.

From the foregoing, it is evident that American Can Company has displayed an aggressive and innovative attitude toward pollution abatement and control. The achievements of this company in the July 1975 to July 1976 period should be rewarded by the award of the Oregon CUP.

Crown Zellerbach Corporation - Wauna

Background

When Crown Zellerbach announced in 1964 the constructions of the Wauna Pulp and Paper Mill, it was the largest private capital investment to date in the State of Oregon. Then, Crown Zellerbach's Board Chairman, Ron Hunt said the Company would install the best water quality control equipment that had been developed to date. At the dedication of the mill's second phase, Governor Tom McCall noted that Wauna was indeed an example that Oregon could have payrolls and playgrounds without destroying the quality of life and the environment.

The mill was equipped with a primary treatment plant which has been operational since 1967. The sludge removed in the primary system was initially de-watered using two large solid bowl centrifuges and the de-watered sludge was then conveyed to a landfill area on the mill property. Sanitary waste was separated at Wauna from the processed effluent treated in the aggravated sludge plant. The discharge from the sanitary waste treatment plant meets the requirements of the Department of Environmental Quality.

In addition to the external treatment system internal mill improvements have been made to reduce wastewater volumn fiber and BOD losses. The latest of the wastewater treatment facilities which became operational in late 1975 is the activated sludge plant. This is the first activated sludge plant used by pulp and paper industry in the Pacific Northwest and is designed to treat about 45 million gallons of wastewater containing 80,000 to 100,000 pounds of BOD per day. It is designed to remove more than 90% of the applied BOD load and produced effluent quality meeting with the 1977 EPA guidance limits. The clarified effluent from the primary treatment plant is mixed with the effluent from the bleach plant and flows to an equalization basin providing a retention of about 6 to 8 hours. The retention basin serves to equalize the waste temperature and BOD concentration and insure a uniform effluent to the secondary system. The mixture of treatment effluent and bacteria flows to two secondary clarifiers which are operated in parallel. The secondary clarifiers remove the bacteria by sedimentation and a portion is recycled to the aeration basin to maintain a high concentration of active bacteria. The clarified treatment

effluent is then discharged to the Columbia River through the existing deep water outfall. Approximately 20 tons of sludge a day is trucked to a disposal site on the mill property. Research is presently underway to evaluate the use of this material as a soil additive in force. The combined primary and secondary treatment systems are capable of BOD and total system solids removal in excess of 90% and are capable of meeting the national pollutant discharge elimination system (NPDES) requirements for the best practical control technology.

In air pollution control, the Wauna Kraft Mill was equipped with odor and particulate matter control equipment when the mill was built. Considerable effort and money have been expended since the mill start-up to improve the performance of the system and to reduce emissions. In the field of particulate matter control, the mill has installed a new design of interior scrubber capable of operating at higher dust collection efficiencies in 1975. The mill rebuilt an existing electrostatic precipitator in 1975 to improve collection efficiency. Three transformer rectify control units were added and power input was increased substantially. Tests conducted since these additions were made indicate that the Recovery Furnaces are now operating below the present particulate matter standard. In the field of odor control, the Total Reduced Sulfur (TRS) emissions from the Recovery Furnace were reduced to meet the new TRS standard by installing a secondary black liquor oxidation system. The mill has secondary black liquor oxidation system which is capable of stabilizing the reduced sulfur compounds prior to direct contact evaporation. This eliminates the discharge of malodorous TRS compounds from the Recovery Furnace complex. The odor control system for the digester evaporator and foam tank emissions was rebuilt in 1975 to improve the reliability and the performance of the system. A system to chemically oxidize the TRS compounds in the washer hood vents was installed in 1975. This system, the first of its kind in the United States, was installed at the Wauna Mill in February of 1976. The non-condensable gases from the washer hood vents are picked up in a long section of pipe and chlorine gas is introduced into the pipe to chemically oxidize all the TRS compound to odorless compounds. The chemically treated gas stream then passes through a scrubber where the gases are treated with a caustic soda solution to remove any residual chlorine in the oxidized compound. To prevent water pollution problems, the spent chemical solution from the scrubber is returned to the bleach plant for reuse in making bleach liquor. The system has been tested since start-up in 1976 and the results indicate no residual odors remain in the gases leaving the treatment system. The Company has spent more than 51 million dollars in water, air and solid waste pollution control. A total of more than 30 thousand man hours per year are required to insure that the environmental controls are properly operated.

Evaluation

In January of 1975, Crown Zellerbach's Wauna Division completed the installation of an activated sludge secondary treatment system for the mill's process wastewater. The Company completed the construction and attained an operational level in accordance with the time schedule in their National Pollutant Discharge Elimination System Waste Discharge Permit. The System is the first of its kind to be installed on a pulp mill in Oregon, and operates well within the limitations of the permit.

Crown Zellerbach has put forth a good effort to maintain this system since it is new and many operational problems have developed. The system has resulted in an 85 percent reduction in waste products demanding oxygen from the Columbia River waters. (Biological Oxygen Demand).

The system retains the waste water in an enclosed tank where bacteria works to reduce the waste materials to sludge. This sludge is then settled out of the water and the clear water is discharged to the Columbia. This method of waste water treatment is most commonly found in Municipal sewage treatment plants with secondary treatment. It is one of the most effective ways of purifying waste water.

Crown Zellerbach is currently involved in a study at the Wauna Mill to compost the sludge removed from the new treatment process. The Company is required by the NPDES permit to eliminate the practice of landfilling all waste sludges generated in the treatment process by 1978. Since the utilization of Kraft sludge as a compost material is a relatively new concept, Crown Zellerbach is providing innovative ideas which, if successful, may be adopted industry-wide.

The Company also completed a system in February 1976 to control odor emissions from the pulp washer hood vents. The system which Wauna chose to use consists of injecting chlorine into the contaminated air stream, and then passing the air mixture through a caustic solution scrubber. The odor reduction system is an innovative approach to the control of pulp mill odors from washer hoods, and is the first of its kind in the State. The odor reduction system has worked exceptionally well and has resulted in a 90 percent reduction of Total Reduced Sulfur (odor causing compounds) from the washer hoods.

The Crown Zellerbach Mill is environmentally within the applicable standards. The personnel have developed a good program of environmental awareness and have established a sound relationship with the Department.

Bohemia Incorporated

Background

Douglas Fir bark that is stripped from logs during the production stage of lumber has been a problem to lumber mills since the lumber industry began operation in Oregon. Mountains of bark can be found along some mills where no real use can be found for the by-product of lumber production. Some is sold for mulch and as ornamental garden covering, some is burned for fuel or used as landfill, but until phase out of the wigwam burner most was simply burned in tepee-shaped incinerators.

The recent demand for clean air forced the industry to abandon the cost effective tepee-shaped incinerator for other methods of disposal.

It has been well known in the industry that Douglas Fir bark contains valuable ingredients such as wax, cork, bast fibers and residual amorphous powder. All of which have intrinsic value. A cost effective means for separating these constituents was not available, making these possible products impossible to recover from a waste product.

Bohemia Incorporated, working through its own laboratories and with industry has designed a process that uses a single solvent to extract most of the marketable products of Douglas Fir bark from the once waste material. More than five years of research and laboratory-size pilot operation were required to perfect the new solvent extraction process. In March, 1973 Bohemia began construction of a 3.2 million dollar processing plant to extract wax, cork and resin extender from Douglas Fir bark generated at one of its mills in Eugene.

The full scale pilot plant operation at Coburg, Oregon will be capable of processing 80 million pounds of bark annually. From this one-time waste material 70 to 80 tons of wax are extracted, 1700 to 1800 tons of extender are recovered and 200 tons of amorphous powder are produced. Ultimately, production from the plant will include 600 to 750 tons of cork and 500 to 600 tons of bast fiber to be used for strengthening plastics.

The Douglas Fir bark extracted in this process has been successfully tested by manufacturers of lipstick, carbon paper, shoe polish, floor and furniture polishes, and various auto waxes. It will compete with carnauba and other vegetable waxes which are now imported to the United States at considerable cost.

The plywood adhesive extenders that would be provided from this bark process would replace ground-up corn cobs that now have to be shipped from the Midwest and the South to the Northwest. This would greatly reduce transportation costs to the industry and use a one-time waste product.

The amorphous powder is used as a phenol substitute in the manufacture of phenol-formaldehyde adhesives. It has been tested successfully in that use.

After the wax is extracted from the bark, the cork fraction results from a change in the cell structure of the bark. The structure changes from laminar to cubical making the bark more resilient. This change also eases the mechanical separation of the various components. The cork is competitive for corkboard, floor and wall panels, gaskets and similar products. Most cork in the United States is imported from Spain and Portugal. Producing cork in this manner will help free the United States from complete dependency on imports.

Evaluation

The Bohemia process is an adaption of a similar solvent extraction process used to extract meal and vegetable oil from soy beans. The bark is first cut and ground, then dried in a rotary steam tube drier. Very small particles at this point are screened out and sold as a phenol substitute. The fraction of larger bark particles is slurried with a combination of solvent and freshly extracted wax. This is mixed in a drum until all the cells have been treated by the solvent. After a final spray with fresh solvent, the extracted bark is permitted to drain. The drained liquid is then collected and sent to the solvent wax recovery section.

The spent bark fraction pass to the desolventizer. The desolventized bark then goes to a deodorizer for final solvent removal. The deodorized bark is fed into a grinder for size reduction and bagged as powdered extender. At this point some of the deodorized bark can be size-separated into cork and bast fiber fractions by a complex series of mechanical screenings.

The wax solvent combination liquid that has been drained from the bark is removed to an evaporator. The remaining solvent is removed from the wax by vacuum steam stripping. The wax is solidified on a continuous belt flacker and packed.

The award winning process (Blue Sky Achievement Award, LRAPA, The Environmental Improvement Award, American Paper Institute/National Forest Products Association, among others) causes little if any air contaminants or water contaminants in its system of changing solid waste into numerous consumer products. Solvent vapors collected from the evaporators steam stripper and other points in the plant are routed along with steam through a spray-type liquid/vapor contactor for heat recovery. Both solvent and water are condensed in an overhead exchanger and passed through the contactor to a decanter. Solvent overflows out for recycling, the water is drained and steam stripped to remove traces of solvent and then discharged. Air carried through the system by the vapors is treated in a mineral oil absorber for solvent recovery and released to the atmosphere.

The bark process developed by Bohemia Incorporated will allow more than 90% of a tree to be used in consumer products. While this initial pilot plant project will use only the bark from one mill, this does represent more than 40,000 tons of waste materials that will not have to be disposed of through methods environmentally unsound. The overall impact of this pilot plant and experimental process can be seen in a much better light when it is considered that 14 million tons of bark are removed from trees each year by the wood products industry.

Douglas County

Background

Continuing tax burdens in Douglas County as in the rest of the State has caused the residents to vote down needed projects with increasing frequency during the past 7 to 8 years. With health hazards and pollution problems on the increase and with little likelihood that many urgent projects would get off the ground, the Board of County Commissioners under the leadership of Mr. Ray Doenner, began examining ways of assisting particularly needy projects.

Early in this period, the County had given extraordinary financial assistance to the Winchester Bay Sanitary District which helped to bring a sewage collection and treatment system to fruition. Several hundred malfunctioning or poorly functioning septic systems were eliminated.

A solid waste project started in 1962 was continually improved and now a DEQ construction program that eliminates a number of sub-standard sites and improves disposal method is nearing completion.

In 1973, the County established a sewer construction fund in the County's budget in which approximately 1 million dollars each year since that time has been approved. This fund is intended to help districts and cities to get sewer projects off the ground.

Since 1969, the County Health Department has worked continuously to let residents of the Glide-Idleyld Park Area (15 miles east of Roseburg) build a sewage collection and treatment system in order to eliminate several hundred failing septic systems. These failing systems have created health hazards and polluted the North Umpqua River. A sanitary district was formed but was disbanded after an election to construct a very expensive standard gravity system was voted down. Since then, sporadic attempts to get a project off the ground have failed. The County, in attempting to solve this problem, has developed a completely new approach as far as the County is concerned.

This approach is to utilize a comparatively new pressure sewer concept that should reduce construction costs. In addition, the County will build and operate the system through the assessment district. This system has been approved by the Department as a demonstration project. Plans are moving ahead with construction expected to commence in the Spring of 1977.

In addition, the County had funded an experimental systems program; onsite sewage disposal. It is felt that systems can be developed that will allow use of less desirable land for home construction while preserving the County's comparatively short supply of farm land. The County is coordinating this experimental systems program with the Department of Environmental Quality.

Evaluation

Douglas County has done a number of things that no other county has done to help the environment. Things that a county is not ordinarily expected to do, yet implemented by Douglas are; (1) establish sewer

construction funds in the County's budget in which approximately 1 million dollars each year has been approved for the past three or four years. This money is intended to help districts and cities get sewer projects off the ground, (2) are in the process of funding a pressure sewer demonstration project for the Glide-Idleyld Park area. The system, to cost approximately 2 and 1/2 million dollars, is to be built and operated by the County. (3) have established a budget item for experimental subsurface systems and have seen some systems installed under the program, (4) the County has injected large amounts of financing into the Winchester Bay Sanitary District's sewer system and has helped clean up that area, (5) the County had the first solid waste plant to be approved.

ESCO Corporation

Background

ESCO Corporation, a Portland-based steel casting and manufacturing firm, received the Oregon CUP Award in August, 1974, in recognition of its responsible approach to air quality and noise pollution problems, including completion of control installations in advance of compliance dates.

The evaluation of ESCO's nomination for the CUP Award noted that it has been corporation policy to anticipate operating problems which threatened air quality, and develop designs to handle emissions rather than wait for solutions from elsewhere in the industry, or claim that the problem was insoluble. The result has been that ESCO-designed pollution control systems have been adopted in other industrial applications and in some instances have been prescribed by DEQ for certain types of problems, especially in the control of particulates.

Total cost of the particulate collection system at ESCO is in the neighborhood of \$1.5 million. Although the foundry operation is potentially one of the dirtiest and noisiest industries, and is located in a heavily-traveled and busy area of Northwest Portland's industrial district, it nevertheless operates with virtually no complaints from its neighbors.

A ventilating system related to the thermal sand reclaimer at the corporation's Yeon Avenue plant was installed at a cost of more than \$50,000. In addition, there has been development of an extensive recycling program - an environmental advance, as well as an economy move for the Company.

Close surveillance of the ESCO operations at both Plant No. 1 and Plant No. 3 has been maintained by the Portland Region office, with the result that emissions have been found consistently to be in compliance with standards. During a formal inspection in April 1975, some minor deficiencies were found, but these were corrected by the time of a followup inspection. ESCO voluntarily initiated a weekly testing program of the baghouse to insure that the bags are always in good condition.

A staff report concludes that in respect to Plant No. 1, "from the standpoint of emissions, we consider this plant to be in continuous compliance."

Recurring problems at Plant No. 3 in late 1974 and early 1975, however, related to the sand handling system, persisted despite attempts to resolve them with the operating personnel. The company took several steps to eliminate the problems, including hiring a full-time control equipment maintenance man and correcting deficient equipment. When the Department observed excessive particulate emissions on July 16, 1975, apparently from improper cleaning practices and handling of fine collected dust, a "Field Notice" was issued for the violation.

The problems at Plant No. 3 were due to apparent lack of good judgment by some operating personnel. The Company responded to the field notice promptly with action to correct the problems, and has pledged that these or similar actions will not happen again.

The DEQ staff report concludes; "We believe that it continues to be the corporate policy to abide by all environmental regulations and be a 'good neighbor.'".

1975-76 Evaluation

Since attaining compliance ESCO has demonstrated a continued and serious commitment to proper maintenance to insure continuous compliance. This maintenance program can be considered innovative in comparison to the less vigorous programs of many other industries.

In the past year ESCO has accomplished the following:

1. A 40,000 ACFM fabric dust collector for the powder burn booth was installed on June 15, 1976.

This is an addition to the powder burn-out control system. Previously one bag filter was switched between two booths. The additional filter allows continuous operation of both booths. There is a net increase in particulate emissions due to the increased operation time in conjunction with a small increase in collection efficiency. Collected material is handled in a manner similar to other plant filter collectors, utilizing sealed plastic particulate. It uses the L.A. Manual's recommended air to cloth ratio. The Portland Region's records reveal no problems with the existing powder burn collector. The new collector possesses more capacity than the existing collector (30,000 cfm).

2. A 65,000 ACFM fabric filter for the Argon-Oxygen Decarbonization Vessel was installed in the Spring of 1976.

This is a new installation. The Argon-Oxygen Decarbonization Vessel results in lower loss of alloys. Emission factors are 234 tons/yr. to the baghouse; 2.34 tons/yr emission from the baghouse. 99% collection efficiency is a conservative estimate. A hood has been carefully designed by plant engineers to capture emissions during all phases of operation. Plan review noted that better than average engineering design considerations were employed.

Design criteria used in this installation are similar to those ESCO developed in 1972 and 1973. At that time these were innovative, but are now standard practice for similar installations.

Mt. Angel Meat Company

Background

The Company operates a small slaughterhouse (20 head/day) in Marion County. Prior to 1967, all process wastewater was disposed of by a septic tank and drainfield system. However, the Department notified the Company on March 3, 1967 that the system was "failing" and corrective action was necessary. In immediate response to this notification, the Company retained a consulting engineer and by May, 1967 had submitted an engineering report and proposed construction program. Land was purchased by June 2, 1967, with the new two-cell lagoon treatment system being complete and operational by mid-October.

This new system held the wastewater during the summer months (June 1 - October 31), with discharges to Zollner Creek during the winter. However, when extremely low stream flow conditions prevailed during the Spring of 1968, the Company worked closely and cooperatively with Department staff to prevent any discharge during May.

The first State Waste Discharge Permit was issued to the Company on June 28, 1968. An NPDES Permit was issued on November 20, 1974, with a compliance schedule for elimination of all discharges by November 1, 1976. The Company recognized its responsibilities, and initiated a program which resulted in the completion of a non-discharge spray irrigation system by March 10, 1975 (20 months before the required completion date).

In recognition of their initiative and cooperative response, the Company received the Northwest Water Pollution Control Federation (NWPCF) 1975 Industrial Pollution Control Award for Oregon.

Evaluation

The immediate response to their environmental problem and subsequent actions to correct that problem has been indicative of the Company's attitude toward protecting Oregon's environment. The two lagoon treatment system and the non-discharge spray irrigation system now operational at the Company site has been expective in preventing any further pollution problems from the Company's process.

Portland Recycling Team

Background

Portland Recycling Team, a non-profit environmental education and recycling organization, began as a one person experiment at Portland State University in 1970. Portland Recycling Team (PRT) now employs over 49 people and has an annual budget including education and work training funds which runs over \$250,000. PRT operates 5 full-line recycling centers and assists 9 weekend projects including ones in McMinnville and Cannon Beach. They have greatly expanded recycling services in Washington County through new projects open at Washington Square and Beaverton Handyman and through cooperative programs with three area schools.

PRT is committed to recycling education. PRT promotes recycling at local fairs and provides display materials for use by other recycling projects throughout the State. About 75 field trips each year are conducted throughout PRT facilities. PRT is now building an educational center in their NW warehouse for use by school groups, solid waste planners, and citizens.

PRT's community involvement extends beyond the operation of their recycling centers. They have participated in the Portland Housing and Community Development program in the upgrading of the locations of their centers in North and Northwest Portland. PRT is a worksite regularly available to Manpower and CETA employees. Five permanent jobs are now filled by former CETA employees. PRT also provides an alternate service worksite for people referred by the Multnomah and Clackamas County court systems. Community litter pickups have been conducted jointly by PRT and Stop Oregon Litter and Vandalism.

Portland Recycling Team is active in government. They participated in the citywide Project Cleansweep, cooperate with the Recycling Switchboard and DEQ Solid Waste Division, conduct solid waste composition surveys, and are members on citizen waste advisory committees. PRT helped establish source-separate collection services patterned after the ORE Plan. And, under contract with the Metropolitan SE Service District, PRT studied the role of recycling in the MSD Plan - "Resource Conservation Through Citizen Involvement in Waste Management."

Evaluation

PRT is a leader in recycling activities in Oregon. They operate full-line recycling centers, not limiting their involvement only to profitable recycling items. PRT has given valuable assistance to other groups in establishment of more recycling projects. Its activities are not limited to the metropolitan area. Projects statewide have benefitted from PRT experiences and transportation assistance. Portland Recycling Team's strong, commitment to recycling and conservation is reflected in the attitudes of its employees.

Publishers Paper Company

Background

Publishers Paper Company, Oregon's first CUP Award recipient, was recognized in 1972 for both the Oregon City and Newberg mills. Both of these were old plants designed and constructed before pollution control was required or considered; efforts to which the company devoted a large investment in capital and innovative engineering resulted in a significant contribution to the program of cleaning up the Willamette River. Over the years, the mills were brought into compliance with all DEQ requirements. In many instances, improvements anticipated DEQ recommendations.

Since the initial award, the Oregon CUP has been renewed twice, and each time the staff noted that further improvements had been made since the last consideration of the committee, even though the view was expressed that so long as the company maintained the same standard of environmental control as was in effect at the time the award first was made, the award should be renewed.

In 1974, the staff report noted that the Oregon City mill was in compliance "except for the digester blow pits." That deficiency has now been corrected, and, in fact, the SO₂ emission levels are less than permit requirements.

Two improvements by the company were completed or are under construction. The Newberg Division completed a new hog fuel fired boiler installation, using solid waste as fuel. It included a scrubber to remove air contaminants. The Molalla Division discontinued use of its wigwam burner by the most environmentally sound method; utilization of its manufacturing residuals (wood wastes).

A significant project in the recycling front is modification of the newsprint manufacturing process at the Oregon City mill to utilize 40 tons per day of used newsprint in the production of the plant's 600 tons per day capacity. This is the first instance in the Northwest of the use of newsprint as a raw material, in combination with new fibers, in the production of newsprint. The engineering and modification of the plant provides both a pilot project and a production capability to use as much as 100 tons per day of used newsprint. The start-up of the newsprint recycling system was between September 15 and October 1, 1975.

At the Company's Portland veneer plant, installation of the veneer dryer emission control system was completed.

There have been reports of violations of the Oregon City mill's NPDES (National Pollutant Discharge Elimination System) permit in October and November, 1974, and March, 1975, for the monthly average of suspended solids. However, Portland Region staff characterizes these as "paper violations" rather than pollution problems. Limits in the permit for suspended solids were set on the basis of past performance, as measured by the "Watman 50 Paper Filter" method of suspended solids analysis widely used in the industry in past years but now largely discredited. The Environmental Protection Agency (EPA) now declares this method unacceptable and stipulates analysis by use of glass fiber filters. It may be necessary to adjust the permit requirements to reflect the more accurate and dependable analysis now required.

Staff indicates that Publishers Paper personnel are concerned and cooperative in their attitudes toward environmental quality control, and in their relationships with the Department.

1975-76 Evaluation

Publishers Paper, Portland Division has been working on the veneer dryer emission control system to try to maintain compliance with the Department's standard. The control device was installed prior to July, 1975, but Publishers has been unable to keep the unit operating successfully. A pilot control unit was installed during May of 1976, but this unit was discarded due to operational difficulties. This situation is not unique to Publishers.

In addition, a waste newsprint baling facility was installed during the past year at the Portland Division to expand its recycling capabilities.

Publishers Paper received approval from the Department of Environmental Quality to install and operate a 40 ton per day waste newspaper repulping and de-inking facility at its Oregon City mill on April 22, 1975. The equipment for this facility became operational in November 1975.

Publishers along with Metropolitan Service District has considered the installation of a solid waste fired steam and electric generating facility at Oregon City; legal issues have held up the implementation of the Metropolitan Service District's program.

Publishers Paper Company, Newberg:

Major emphasis continued to be placed on environmental quality control at the Company's Newberg Division, beginning at the Resident Manager's level. This emphasis is carried on down through the various management levels to plant employees themselves.

A major environmental "gain" was made with the completion of a new hog fuel fired boiler in December, 1975. The boiler utilizes wood material which was previously considered a "waste" rather than a "resource". This boiler is equipped with a scrubber to remove air contaminants, and recent source tests have demonstrated that the new boiler can comply with the Department's air quality standards.

The Company continues to take an active interest in the area of resource recovery, as demonstrated by the Company's recent one-day test trial of burning tire chips along with hog fuel in the new boiler. Although the test results are not yet available, and such burning may not be feasible, their initiative is noteworthy.

Although air quality violations (within the recovery system) are still being experienced on occasion, such violations have all been related to upset conditions within the plant and/or its control system. The record between upsets is 67 days and, prior to an upset on August 16, the plant operated 50 consecutive days without a recovery problem. After the August 16 upset, stern measures were apparently taken by the Company with their

personnel, and management has reaffirmed their intention to operate completely free of upsets and other violations.

In the area of water quality, the Company continues to perform in a commendable manner. Effluent violations (suspended solids monthly average) were experienced in February, March, and April, 1975. These could be attributed in part to a concurrent BOD violation in March (daily maximum which resulted from overflows within the recovery system, and deteriorated valves located in remote drain sumps. These problems were extremely difficult to track down and isolate; however, prompt corrective action was taken once Company personnel determined the problem. Situations such as these are infrequent, since weekly checks are made of all possible contributing sources to the Company's water treatment system. It should be noted, too, that similar suspended solids violations were reportedly being experienced at the Company's Oregon City Mill. This situation points to the possibility of climatic impact on the treatment system and/or the need to adjust the permit limits, as discussed in the EQC report dated September 26, 1976. (excerpt attached)

Effluent quality during this summer's low flow period has been excellent with actual discharges (in pounds) averaging 34% below the specified effluent limits during the period of June 1 - August 31.

Usually, Department staff must express their opinions of Company performance to Company personnel. However, in the case of Publishers Paper Company, DEQ staff are openly asked whether the Department is disappointed with the Company's performance. Company concern is clearly and openly present.

Nominees Recommended for Letters of Commendation

Cascade Construction Company, RIM (Recycling for Independence-Monmouth), and Willamina Lumber Company were recommended by the Oregon CUP Award Screening Committee for Letters of Commendation. Environmental efforts by these nominees were considered exceptional by the Oregon CUP Award Screening Committee but were not determined to be deserving of an Oregon CUP Award.

In accordance with the Oregon CUP Award bylaws and rules, provisions are provided for awarding Letters of Commendation to those nominees considered exceptional in their efforts but not deserving of the Oregon CUP Award.

Cascade Construction Co., Inc. - Abernethy Plant

Background

Following nomination by the Asphalt Paving Association of Cascade Construction Company in June, 1974, for an Oregon CUP Award, problems developed in the operation of its newly-installed air pollution control equipment (an 85,000 CFM baghouse to clean exhaust gases from the rock dryer) and brought about a delay in the Screening Committee's consideration of the Award.

DEQ staff recommended a two to four months trial period for operation of the equipment to provide opportunity to monitor its effectiveness. Further, staff asked the Committee to decide whether a company can receive the Oregon CUP Award for one plant which has achieved environmental excellence if it operates other similar facilities which are in compliance but would not on their own merits be considered by the CUP Award.

The Committee, meeting in July, postponed action on the application pending monitoring data, which was provided in a memorandum from the Northwest Region (now Portland Region) staff dated November 18. Meeting again late in November, the Committee accepted the staff recommendation approving the Award and noted that in previous deliberations the Oregon CUP Award had been presented for environmental excellence at specific plant sites (e.g., the American Can Company pulp and paper mill at Halsey).

Following monitoring of the plant by DEQ personnel between July and November, 1974, when the pollution control equipment was found to be performing at a high degree of collection efficiency, the Committee recommended presentation of the CUP Award to Cascade Construction Company for its Abernethy plant.

It was also noted that the Company initiated further environmental improvements not required by DEQ, such as landscaping the grounds, noise suppression, paving the entire plant area and constantly wetting down and sweeping the area. Periodic opacity problems at the Company's St. Helens Road plant, leased from another operator, were corrected, as well as improvements which eliminated a wastewater discharge to the Willamette River.

New efforts of Cascade Construction Co. to enhance the environment were enumerated in a letter received July 31, 1975 from George R. Morton, Vice President, Engineering: to raise the elevation of their yard adjacent to the riverbank to insure that no water-carried pollutants from rainwater or yard sprinkling were entering the river; discharge water is checked periodically for pollutants and temperature; asphaltic concrete storage tank pollutants drain into a sump in the scale pit to be disposed of later, an instance of advance planning to prevent pollution; through training, the zero-pollution attitude is reaching the work force. Upper supervision does not need to order yard or stockpile when required, the workers handle this automatically.

A staff report dated August 14 from the Portland Region office states that Cascade Construction Company "has continued to conduct an exemplary operation since receiving the Oregon CUP Award . . ." It notes that daily field staff observations indicate the Abernethy plant to be in continuous compliance. A formal plant inspection July 15 determined the plant was operating in compliance with all permit conditions and requirements. Road and stockpile dust, once a source of public complaint, is controlled by regular watering and sprinkling.

This year the Company outlined its accomplishments in a letter to the DEQ as: continued the maintenance of dust control systems on the asphalt plant; continued their program of dust control in the yard area with the use of a water sprinkling truck and a street sweeper. They acquired additional land next to their property, and regraded it to direct drainage to deep wells and a french drain, and hope to have the

main travel areas paved. They also operate their pile sprinkling system when wind and dust conditions warrant their use; have fenced the main operating portion of their yard, which protects the petroleum facilities from the casual visitor and possible pollution by vandalism; are operating storage systems installed in 1975, which do not add to their environmental efforts locally, but do assist in the total effort since they realize a fuel savings in the plant and with the trucks; are presently proudly flying the CUP flag with the State and the Country's flag on the plant as their means of displaying the insignia.

Evaluation

The DEQ has found that air pollution levels at Cascade Construction are well within compliance. Visual emissions are also in compliance. Annual emissions are calculated to be 3.62 tons. Aggregate stock are equipped with a sprinkler system to prevent dust entrainment. This system was installed in 1973 and has been modified in 1974 and 1975. The cement silo is equipped with fabric filters to control dust-laden air which is displaced when the silo is filled.

The applicable water quality standards are being met at the present time by this company.

The elevation of the yard has been raised to insure that no water-carried pollutants from rainwater or yard sprinkling are entering the Willamette River. The yard water is drained into sumps which filter the water prior to dispersal in the Subsurface system.

A system of asphaltic concrete storage tanks have been installed and are in operation. All pollutants from the system drain into a sump in the scale pit to be disposed of later.

Cascade Construction washes and sweeps the paved and graveled area in and around the plant.

Field staff have observed the plant on a regular basis and found the plant to be in continuous compliance with its permit conditions and requirements.

RIM (Recycling for Independence-Monmouth)

Background

RIM is a small, loosely-knit group which organizes and coordinates recycling efforts for these two communities. RIM is composed of about a half dozen committed persons whose professional associations represent Oregon College of Education, the City of Monmouth (fire chief), and the Churches. RIM has produced a handbook which is given to groups interested in sponsoring the recycling program for a particular month. And, RIM maintains the necessary supplies for use each month.

The local recycling program operates one day a month -- the second Saturday -- from 9:00 to 3:00. Various youth and civic groups volunteer to operate the center on a given day and arrange for workers, vehicles, etc. That group, then, receives the proceeds from the effort, less 10% which RIM uses for supplies. While the program is limited in scope, it

has a good community-wide participation. And, perhaps the most impressive aspect is that it has now functioned almost two years (it began May, 1974) without fail. Given the fluctuations in prices of recycled goods and the mortality rate for recyclers, that is a very good record.

Evaluation

RIM's community participation is representative of several local recycling projects in Oregon. The volume of recyclables they handle is respectable for communities of that size. The distinguishing feature of RIM is its operation by a different service organization monthly. It is unique to involve more than one or two organizations in the same recycling project on a regular basis.

RIM is among the growing number of recycling projects becoming stable, established community services.

Willamina Lumber Company

Background

DEQ's initial contact with the Company was in May, 1972, when a complaint from a neighbor was received about log handling practices, dumping of residue into the creek and changing the stream flow. Following initial actions by the Company to correct the problems, a series of conferences with DEQ personnel resulted in an agreement on a program of complete abatement. Significant changes were made in log handling practices, from water storage and handling to dry deck, at a cost originally estimated at \$575,000, but which ultimately reached more than \$800,000. The improvements in this phase of operation, now completed, were major factors in the positive decision for the original Oregon CUP Award.

A burning complaint in 1969 to the Mid-Willamette Valley Air Pollution Authority led to a compliance schedule which was met by the Company, so that its wigwam burner was shut down and all wood wastes either utilized or disposed of in accordance with DEQ requirements.

Responsibility for air quality in the Willamina area rests now with DEQ, with transfer of responsibilities from MWVAPA effective August 1, 1975.

Willamina Lumber Company instituted a program of solid waste management with establishment of its own waste disposal site. This is operating in full compliance with the DEQ solid waste disposal permit. It is used strictly for yard cleanup debris and other wood waste which cannot be utilized elsewhere. All sawdust and chips are sold primarily either to Publishers Paper or Boise Cascade. In addition, the Company made firewood available to the public at nominal cost. The program accomplishes two purposes: (1) it reduces the volume of waste taken to the landfill, and (2) makes possible further utilization of wood resources. Furthermore, the Company is now developing a program for use of hemlock waste, possibly as hog fuel, thereby avoiding its disposal by landfill.

The Company initiated efforts to minimize drainage into the landfill site beyond the requirements of the solid waste disposal permit; the

result is less danger of leachates reaching a waterway, and a cleaner and more efficient landfill.

Both the Salem Region office and MWVAPA testify that there is an open and friendly - yet professional - working relationship between company representatives and pollution control staff. An example was that during the recent strike at Publishers Paper, Willamina, faced with a sudden decrease in the market for its chips and sawdust, advised the Salem office of the necessity to stockpile chips and requested concurrence with its stockpiling program. Most industries would not have thought of notifying DEQ.

Evaluation

Since that time, the Company has continued to maintain its excellent environmental attitude.

Because of the major studies made in the past, little improvement in air and water programs can be made at the Company's Willamina mill. The only water discharge is compressor cooling water, which is essentially insignificant. Air emission sources are limited to cyclones, which are well maintained and in full compliance with the applicable Air Contaminant Discharge Permit.

Some problems were experienced when irrigated spring water and leachate (both associated with the Company's solid waste disposal site) reached Willamina Creek. The Company immediately responded to the recommendations of Department staff by completely containing the previous discharge within the disposal area, and further modified its solid waste disposal procedures to insure that the entire operation is conducted in a more environmentally and aesthetically satisfactory manner.

Late in 1975, Willamina Lumber Company purchased a new facility previously known as Riverside Lumber Co. Air quality problems had been experienced with the mill's prior operation, and a compliance schedule was incorporated into the new Air Contaminant Discharge Permit for completion of controls by February 1, 1977. The Company recognized its responsibility and modified the system in such a manner that the necessary work was completed by September 23, 1976 (approximately 4 1/2 months ahead of schedule).

The Company's concern for exemplary pollution control is demonstrated by the recent creation of a new management position: Vice President - Environmental Quality.

Recommendation

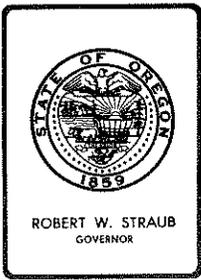
It is recommended that Oregon CUP Awards for American Can Company - Halsey, ESCO Corporation, and Publishers Paper be granted a renewal for the calendar year of 1977. It is further recommended that Oregon CUP Awards be granted to Crown Zellerbach - Wauna Mill, Mt. Angel Meat Co., and Bohemia Incorporated Bark Processing Pilot Plant. It is further recommended that Douglas County and the Portland Recycling Team be granted an institutional (one time only) Oregon CUP Award. Additionally, it is recommended that Letters of Commendation be granted for Cascade Construction Company, RIM (Recycling for Independence-Monmouth), and Willamina Lumber Company for the 1977 calendar year.

Sincerely,

Michael Downs
for

WILLIAM H. YOUNG
Director

DLG:ks
12/6/76



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item E - Oregon CUP Awards Rules, Proposed Revisions to Rules for Oregon CUP (Cleaning Up Pollution) Awards

Environmental Quality Commission Meeting December 20, 1976

Background

The Environmental Quality Commission adopted the Rules for the Oregon CUP (Cleaning Up Pollution) Awards January 25, 1972. The Rules were subsequently revised on June 5, 1972 and adopted July 27, 1972.

The Rules provide that no person or industry shall display the Oregon CUP Award Insignia or any facsimile thereof on any product or commodity unless entitled to do so by means of selection by the Environmental Quality Commission for the period during which the Insignia is displayed: upon expiration or revocation of the Award the recipient shall be allowed 60 days to remove the Insignia from products offered for sale.

Since the inception of the Award, only five industrial CUP Awards have been awarded by the Environmental Quality Commission to date. None of these awards have been revoked or have failed to regain Environmental Quality Commission approval for renewal. The 1976 Oregon CUP Award Screening Committee, in deciding its philosophy on the Oregon CUP Award Program and in determining its procedures for awarding new and renewed Oregon CUP Awards, determined that continued renewal of Oregon CUP Awards to companies, both for already issued awards and for awards in the future, would be impossible.

The Committee expressed concern that the CUP Award Rules as now written, concerning fraudulent use of the Oregon CUP Award Symbol, would place undue hardship on CUP Award recipients whose awards were not renewed, and of the negativeness of that rule towards the CUP Award Program. Industry representatives on the Committee pointed out that most industries order labels and labeling materials from 6 months to a year or more in supply to achieve cost savings with bulk orders. In many cases, these stock labels are in such large supply that it would be impossible for a company to use them all in 60 days as required by the present rule. This could result in a company experiencing monetary losses for the unused labels. In addition, the Committee pointed out that many advertising campaigns are planned over a year in advance and must be finalized at



Contains
Recycled
Materials

least 6 months in advance to arrange the proper printing or media called for by the campaign. Often these advertising campaigns are tied in with the labels that the industry uses on products. On the whole, the Committee pointed out, these restrictions placed on the industry by the CUP Rules can cause seemingly unnecessary hardship.

The Committee also felt that for the Oregon CUP Award Program to be successful, it must be in plain view of the public. It was the Committee's opinion that this portion of the Oregon CUP Rules did not accomplish this goal. As the CUP Award Program continues to progress in the number of awards presented, the Committee felt that the Rule would actually apply a negativness to the Program overall.

Evaluation

It was decided by the Committee that it be recommended that the Rule be changed to allow continued display of the Oregon CUP Award Symbol after loss of a current and valid Award as long as the Symbol is identified with the years (date) that the Award(s) were made. The recommended changes in the Oregon CUP Award Rule would be as follows:

USE OF THE CUP AWARD INSIGNIA

A person or industry may display the Oregon CUP Award Insignia or any facsimile thereof, on any product or commodity, only when entitled to do so by means of selection of the Environmental Quality Commission. The year or years in which the Award(s) was or were granted must be clearly indicated each time the CUP Award Insignia is displayed.

This paragraph would replace the last paragraph of the Oregon CUP Award Rule titled Fraudulent Use of Oregon CUP Award Insignia Prohibited.

Director's Recommendation

It is the recommendation of the Director that the Oregon CUP Award Rule be amended to reflect the Oregon CUP Award Screening Committee's recommendations.

Michael Downs
for
WILLIAM H. YOUNG
Director

DG:ks
Attached

RULES FOR OREGON CUP
"CLEANING UP POLLUTION" AWARD

NATURE OF AWARD:

Oregon CUP Awards may be made to any industry, organization, institution, corporation, governmental unit, or individual for outstanding efforts in preventing or cleaning up pollution in Oregon. There is no limit as to the number of awards which may be made to qualified recipients in any time period. Awards to industries shall be made for specified periods of time and shall include separate categories for types of industry, such as production or manufacturing, service (including retailing), and land use; requirements for awards may differ according to the potential for pollution or environmental enhancement applicable to each category and the difficulty of control or prevention. Awards to production industries may include awards for development of products which in themselves contribute significantly to controlling or preventing pollution as well as awards for production methods which exceed state environmental requirements. Awards to individuals or to nonprofit institutions or organizations may be made one time only and without limitation as to duration.

Anti-pollution efforts which, in the judgment of the Screening Committee or the Environmental Quality Commission, do not qualify for the full Oregon CUP Award may be recognized by means of letters of commendation from the Environmental Quality Commission or by a recommendation for a gubernatorial citation.

The Oregon CUP Award shall be accompanied by a letter to the recipient indicating limitations on uses to which the award may be put, and specific rights and privileges granted by the EQC in conjunction with the issuance of the award.

DURATION OF INDUSTRIAL AWARDS:

Initial awards shall be valid for the remainder of the calendar year in which the award is made and for the full calendar year immediately following, but may be revoked by the Environmental Quality Commission during the valid period if after a public hearing the Commission finds that the recipient has become unqualified to retain the award.

PRELIMINARY SCREENING OF NOMINEES:

A screening committee shall be established for preliminary consideration of nominations for the Oregon CUP Award. The committee shall consist of nine members selected by the Environmental Quality Commission: two members shall be selected from a list of names submitted by environmental groups; two members shall be selected from a list of names submitted by industries or industrial organizations; two members shall be selected from a list of names submitted by organized labor; and three members shall be selected to represent the public. Members of the screening committee shall serve two-year overlapping terms and shall not be subject to consecutive reappointment. For initial appointment, names of prospective committee members shall be submitted to the EQC by interested organizations. Names of prospective committee members shall be submitted to the EQC by interested organizations not later than March 1 of each year for appointment effective the following July 1.

Upon appointment, each screening committee member shall submit a complete statement of his financial interests. No screening committee member shall be eligible to vote on an award nomination involving any company in which he has a personal financial interest.

At its first meeting following appointment of members, the screening committee shall elect a chairman and shall be considered an organization for purposes of ORS 649.010 - 649.060.

NOMINATIONS AND GRANTING OF AWARDS

Any individual or group, including members of the screening committee itself, may submit to the screening committee at any time the name of an industry, corporation, organization, governmental unit, or individual for consideration for the Oregon CUP Award, or application may be made to the screening committee by prospective nominees themselves. Nominations shall be accompanied by information as to the contribution the nominee has made to cleaning up or preventing pollution in Oregon.

The screening committee shall meet as often as necessary but not less than twice a year to consider nominations for initial awards or renewals. Nominations which have been favorably acted upon by the screening committee shall be submitted to the Department of Environmental Quality with the information upon which the screening committee's decision was based. The Director of the Department of Environmental Quality shall forward these nominations to the Environmental Quality Commission along with his recommendation. The Environmental Quality Commission shall make the final decision on the granting or renewal of the Oregon CUP Award, the rights and privileges conferred with the award including specific conditions for its use or display, and on the granting of lesser awards such as letters of commendation or recommendations for gubernatorial citations.

REQUIREMENTS FOR NOMINEES:

Prior to consideration by the screening committee, nominees shall be required to submit a list of all plant operations and subsidiaries located in Oregon.

Following favorable action by the screening committee and prior to final decision by the Environmental Quality Commission, nominees shall be notified that they are under consideration for the Oregon CUP Award and given an opportunity to express their interest in receiving the award. Nominees who wish to receive the award shall agree to display the Oregon CUP insignia only during the period for which the award is valid and in the manner specified, and to notify the Environmental Quality Commission of any change in conditions which might affect their eligibility for retention or renewal of the award.

RENEWAL OF AWARDS:

Recipients wishing to be considered for renewal of Oregon CUP Awards shall submit applications to the screening committee not later than June 30 preceeding expiration of the award. The application shall include an agreement regarding display of the insignia as described under "Requirements for Nominees" along with pertinent information regarding the applicant's activities related to cleaning up pollution or prevention of pollution during the period of the award. The screening committee shall submit recommendations on renewal applications to the DEQ within 45 days following the deadline for renewal of applications and shall be acted upon by the Environmental Quality Commission within 90 days following the deadline for the renewal of applications.

~~FRADULENT-USE-OF-OREGON-CUP-AWARD-INSIGNIA-PROHIBITED:~~

~~No person or industry shall display the Oregon-CUP-Award insignia or any facsimile thereof on any product or commodity unless entitled to do so by means of selection by the Environmental Quality Commission for the period during which the insignia is displayed; upon expiration or revocation of the award, the recipient shall be allowed 60 days to remove the insignia from products offered for sale.~~

USE OF THE CUP AWARD INSIGNIA

A person or industry may display the Oregon CUP Award Insignia or any facsimile thereof, on any product or commodity, only when entitled to do so by means of selection of the Environmental Quality Commission. The or years in which the Award(s) was or were granted must be clearly indicated each time the CUP Award Insignia is displayed.



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. F, December 20, 1976 EQC Meeting

Water Quality Management Plan - Public Hearing to Consider Adoption

Background

The Department has undertaken an effort to develop a Water Quality Management Plan for the State of Oregon on a basin-by-basin basis. Such plan is necessary to meet the requirements of Public Law 92-500.

Prior to today's hearing proposed water quality management plan documents were prepared for 19 basins (or combinations of basins). The staff held public hearings on these individual proposed basin plans. Three public hearings were held in April 1976 for the proposed plan for the Rogue River Basin. During September 1976, one public hearing was held for each of the other basins. The purpose of these hearings was to receive public input on the accuracy of the information and analyses presented and to suggest corrections, additions or revisions where desirable.

Following the public hearings and the receipt of testimony, revisions and corrections were made where appropriate and the major plan elements (Appendices A and B) from the 19 basin documents were compiled into a multi-volume Statewide Water Quality Management Plan.

Volume I contains the regulatory elements of the proposed statewide plan as compiled from Appendix A of each of the 19 proposed basin plan documents. Volume II contains a consolidation of the identified needs and proposed short-term action program for meeting those needs contained in Appendix B of each of the state's river basins.

Volume III of the proposed statewide plan provides a short summary of the plan formulation process, the components of each basin plan, and the proposed major changes in plan language in response to relevant hearing testimony. It also discusses the Department's intent to incorporate future sections and outlines procedures for updating the plan. It was not intended to reproduce narrative information contained in the 19 basin plan documents.



Contains
Recycled
Materials

Volume IV of the statewide plan contains an itemized listing and summary of all oral and written testimony received by the Department concerning the proposed basin plans. The discussion of the testimony which follows this listing is separated into three sections:

- A. Common Concerns Statewide
- B. Special Concerns in a Number of Basins
- C. Special Concerns in Individual Basins

Volumes I, II, and III of the statewide plan were printed and mailed to all agencies, organizations and individuals who received copies of the original individual basin plan documents. Volume IV was just completed and has not been widely circulated.

Significant Issues

As a result of recent comments received from state and federal agencies and private citizens regarding the revised proposed statewide water quality management plan, two issues warrant special consideration. The issues are as follows:

A. Local Involvement in Plan Formulation.

The Department has received a number of requests to either defer plan adoption or adopt the plan on a temporary basis until local agencies have more opportunity for review and input. While recognizing the concerns of local governments, the staff has viewed temporary adoption as impractical in view of the federal requirements for review and update on a 3-year cycle. However, the staff has discussed the matter further with the League of Oregon Cities staff and now proposes addition of the following language to the end of the preface of Volume I of the plan documents.

The EQC recognizes that the deadlines for adoption of this plan prevented thorough involvement by local government in the development and review of the plan. Accordingly the Department will review the contents of this plan with affected local governments and will use their comments and suggestions in preparing amendments for consideration by the EQC not later than December 1977.

At a minimum the processes of coordination with local governments will consist of the following elements:

1. Work with county coordinators to set up meetings to explain the plan to groups of local governments and solicit their comments.

2. Provide copies of the plan and supporting documents to any affected local governments who have not already received them.
3. Seek input from Council of Governments.
4. Upon request, visit local level governments to discuss the plan.
5. Work with statewide associations of local governments and others to inform local governments of the plan.

The staff concurs in two other League staff recommendations:

1. Amend Section IV. H. of Volume I (Page 10) to read as follows:

The EQC recognizes that the potential exists for conflicts between Water Quality Management plans and the Land Use Plans and Resource Management Plans which local governments and other agencies must develop pursuant to law. In the event any such conflicts develop, it is the intent of the Department to meet with the local government or responsible agency to formulate proposed revisions to one or both so as to resolve the conflict. Revisions will be presented for adoption via the same process used to adopt the plan unless other specific procedures are established by law.

2. Amend Paragraph 1. on Page 18 of Volume III to read as follows:

Initiate a public participation program in the basins to be reviewed that will include at least the items contained in the last paragraph of Section I of Volume I relating to Local government coordination.

- B. Addendum to the turbidity standard for the South Umpqua River.

Days Creek Dam which is proposed for construction on the South Umpqua is expected to cause an increase in the turbidity of the river.

The State Water Resources Board endorsed the Days Creek Dam Project in 1971 and supported federal appropriations to conduct studies in the Umpqua Basin. By letter dated August 18, 1976, the Water Resources Department stated, "The Water Policy Review Board has indicated its position will be the same as the predecessor Board unless specifically altered." The Board has not planned a further review of the project at this time.

In May 1976, the Corps of Engineers distributed a "Draft Supplemental Environmental Impact Statement" on the Days Creek Lake Project. A model used to determine water quality impacts of the project predicted turbidities of 9, 10, and 20 JTU's for low, average and high flow years, respectively. To be consistent with the Water Policy Review Board position, the Department proposed an addendum to the South Umpqua turbidity standard which would allow increased turbidities if the dam is built. State and federal fishery agencies have questioned the Corps model and requested adoption of a strict turbidity standard for the South Umpqua River. Furthermore, the Department has received comments from over one hundred persons opposing the addendum to the turbidity standard for the South Umpqua River as proposed by the Department. Testimony in support of the proposed addendum also was received. Proponents included local government officials, but relatively few private citizens.

In view of the conflict which has developed between proponents and opponents of the Days Creek Dam Project, the Department wishes to suggest consideration of alternatives to the addendum as originally proposed (top of Page 40, Volume I). The alternatives and their probable consequences are as follows:

1. Delete the proposed addendum to the turbidity standard.
 - a. According to the Water Resources Department's letter of November 9, 1976, "...without the proposed addendum, federal funding to continue studies of the water-related problems in the basin may well be jeopardized."
 - b. This would satisfy the members of the public who are opposed to the proposed addendum and dam construction.
2. Adopt the addendum as proposed.
 - a. Federal funding will probably continue for studies of the water-related problems in the basin.
 - b. Opponents to the proposed Days Creek Project would be disappointed.
3. Revise the proposed addendum to show the intent of the Environmental Quality Commission to consider modification of the turbidity standard at a later date as follows:

When appropriate studies are completed by the Corps of Engineers, or others, the Environmental Quality Commission will, consistent with the provisions of ORS Chapter 468, modify the turbidity standard, on a case-by-case basis if necessary, to accommodate such specific water storage and development projects in the South Umpqua Basin as are found to be in the best overall interest of the public.

The Department believes that such proposed addendum would be a compromise between the proponents and opponents of the proposed project.

Plan Adoption

As already explained, the December 1976, Statewide Management Plan developed by the Department consists of four volumes:

- I. Beneficial Uses, Policies, Standards, and Treatment Criteria
- II. Presently Identified Needs and Proposed Action Program for Individual River Basins in Oregon 1976
- III. Narrative Summary
- IV. Summary of Testimony from Public Hearings

Volume I is intended for Commission adoption as Administrative Rules. It will replace the current Subdivision 1 of Division 4 of OAR 340 (Standards of Quality for Public Waters of Oregon and Disposal Therein of Sewage and Industrial Wastes) and all sections thereunder, i.e., 41-005 through 41-105.

Volume II is intended to provide the Department's staff with a day-to-day working document. It is an organized listing of identified needs and proposed actions which result from applying the plan regulatory provisions to present conditions. It will be revised and updated periodically as potential needs and action programs are identified.

Volumes III, IV, and the 19 individual basin plan documents include background information, development documents and supporting analyses used in the formulation of the Statewide Water Quality Management Plan. The information contained in these documents will be expanded, updated and revised, as appropriate, as a part of the future plan review and update process.

In order to fully satisfy the requirements of Section 303(e) of P.L. 92-500, all four volumes as Oregon's Statewide Water Quality Management Plan together with the 19 individual basin documents must be formally recognized as the plan for Oregon. Once this has been done, and the EPA approves the plan, the plan will become Oregon's official commitment to the state and national water pollution control effort.

Director's Recommendation

The Director recommends that the Commission take the following actions:

- A. Amend Section I. Preface of Volume I (Page 1) by adding a new third paragraph to read as follows:

The EQC recognizes that the deadlines for adoption of this plan prevented thorough involvement by local government in the development and review of the plan. Accordingly the Department will review the contents of this plan with affected local governments and will use their comments and suggestions in preparing amendments for consideration by the EQC not later than December 1977.

At a minimum the processes of coordination with local governments will consist of the following elements:

1. Work with county coordinators to set up meetings to explain the plan to groups of local governments and solicit their comments.
2. Provide copies of the plan and supporting documents to any affected local governments who have not already received them.
3. Seek input from Council of Governments.
4. Upon request, visit local level governments to discuss the plan.
5. Work with statewide associations of local governments and others to inform local governments of the plan.

B. Amend Section IV. H. of Volume I (Page 10) to read as follows:

The EQC recognizes that the potential exists for conflicts between Water Quality Management plans and the Land Use Plans and Resource Management Plans which local governments and other agencies must develop pursuant to law. In the event any such conflicts develop, it is the intent of the Department to meet with the local government or responsible agency to formulate proposed revisions to one or both so as to resolve the conflict. Revisions will be presented for adoption via the same process used to adopt the plan unless other specific procedures are established by law.

C. Amend Paragraph 1. on Page 18 of Volume III to read as follows:

Initiate a public participation program in the basins to be reviewed that will include at least the items contained in the last paragraph of Section I of Volume I relating to local government coordination.

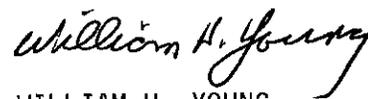
D. Modify Paragraph 2 of the proposed turbidity standard for the Umpqua River Basin in Volume I, Section VII, Item B, 2, c. (top of Page 40) to read as follows:

In the event that the Corps of Engineers' proposed Days Creek Project is constructed, the natural stream turbidity for the South Umpqua River in the reach downstream from the dam shall be deemed the turbidity level in reservoir water releases for low stream flow augmentation, not to exceed 20 JTU. All

reservoir water releases shall be managed to the best combination of temperature and turbidity regimes for salmonid fish production as determined by the Oregon Department of Fish and Wildlife.

When appropriate studies are completed by the Corps of Engineers, or others, the Environmental Quality Commission will, consistent with the provisions of ORS Chapter 468, modify the turbidity standard, on a case-by-case basis if necessary, to accommodate such specific water storage and development projects in the South Umpqua Basin as are found to be in the best overall interest of the public.

- E. Repeal Sections 41-005 through 41-105 of OAR Chapter 340, and simultaneously adopt Volume I, Statewide Water Quality Management Plan, Beneficial Uses, Policies, Standards, and Treatment Criteria for Oregon, December 1976, as administrative rules to be incorporated in Subdivision 1 of Division 4 of OAR Chapter 340.
- F. Approve the Statewide Water Quality Management Plan for Oregon, December 1976, Volumes I, II, III, IV, and the 19 supporting proposed basin planning documents as Oregon's official water quality management plan.
- F. Authorize the Director to transmit the plan and documents in Item 6 above to EPA together with the certification that these documents constitute the official Water Quality Management Plan for the State of Oregon, that the plan meets the applicable requirements of 40 CFR, Parts 130 and 131 and that the plan will be used in establishing permit conditions, target abatement dates and assessing priorities for awarding construction grants.



WILLIAM H. YOUNG
Director

HLS:ak
December 17, 1976

State-Wide Water Quality Management Plan, December 1976, Volumes I, II, & III

Summary of Written Testimony Received Through December 17, 1976

A. General Comments Relative to State-Wide Plan.

1. 12/9/76, J. F. Cormack, Crown Zellerbach Corporation, regarding policy statements, beneficial uses, dissolved oxygen, temperature, total dissolved solids, EPA regulations, sewage treatment criteria, sewage disinfection, by-passing, aesthetic conditions, and stream classifications.
2. 12/9/76, E. J. Kirkpatrick, Western Kraft Paper Company, citing the fact that the DEQ had changed the beginning date for summer flow conditions.
3. 12/15/76, Terry Waldele, CRAG, wanting a better definition of policies and guidelines and Willamette Basin sewerage planning.

B. Specific Comments Relative to Individual Basins.

1. Rogue Basin

- a. 12/3/76, Duane Scoggins, City of Medford, failure of DEQ to up-date cost estimates for projected sewage facilities.
- b. 12/3/76, Clifford Shaw, Marquess and Associates, regarding beneficial uses and industrial wastes.
- c. 12/6/76, Duane Scoggins, City of Medford, relative to judgement values built into standards, dissolved chemicals, aesthetic conditions, sewage waste, and waste treatment requirements.
- d. 12/10/76, Jack Hoffbuhr, Greater Medford Chamber of Commerce. Water quality standards should not interfere with water storage project developments.
- e. 12/10/76, L. J. Stein, Portland District Corps of Army Engineers. Interpretation of proposed turbidity standard ambiguous and concerned about sensitivity of instrument used to determine same.
- f. 12/13/76, Allen Alsing, City of Ashland, pertaining to aesthetic conditions, effluent dilution requirements, and temperature standards.

2. Mid Coast Basin

- a. 12/8/76, Thor Mork, seeking clarification sewage treatment programs in Lincoln County.

3. Umpqua Basin - South Umpqua River Turbidity Standard

a. Proponents to proposed addendum

11/9/76, James Sexon, Director, Dept. of Water Resources

b. Opponents to proposed addendum

11/10/76, Robt. U. Mace, Dept. of Fish & Wildlife
11/17/76, Fred Cleaver, National Marine Fisheries Service
12/3/76, M. D. Sylvester & Nita Sylvester, private citizens
12/3/76, Alvira Ward, private citizen
12/4/76, Jackie Robertson, private citizen
12/3/76, Dan Gregg, private citizen
12/3/76, Eric Eisenberg, private citizen
12/3/76, Kevin Kehoe, private citizen
12/3/76, Gaston Porterie, private citizen
12/4/76, D. W. Clark, private citizen
12/4/76, Warren E. Wood, private citizen
12/5/76, Mildred Rouleau, private citizen
12/6/76, C. San Filippo, private citizen
12/6/76, J. Ray Kennedy & Ellen F. Kennedy, private citizens
12/6/76, Mrs. Jean Davis, private citizen
12/6/76, Rosalee LaFond, private citizen
12/6/76, Dean Powell & Josephine Powell, private citizens
12/6/76, L. Seese, private citizen
12/6/76, Brent C. Fletcher, private citizen
12/6/76, John Braga, private citizen
12/6/76, M. D. Sylvester & Nita Sylvester, private citizens
12/6/76, Evelyn Garn, private citizen
12/6/76, Annie Goddard, private citizen
12/6/76, Moses Chalmers, private citizen
12/6/76, Bill Finch, private citizen
12/6/76, Phyllis Finch, private citizen
12/6/76, Darwin Swingley, private citizen
12/6/76, Mr. & Mrs. Edward Hart, private citizens
12/7/76, Mr. & Mrs. Darwin Powell, private citizens
12/7/76, Louise Weseman, private citizen
12/7/76, Elizabeth R. Levine, private citizen
12/7/76, Gary S. Zimmerman, private citizen
12/7/76, Ray Wright & Esther Wright, private citizens
12/7/76, Earl R. Garn, private citizen
12/7/76, Stanley A. Whitney & Venita C. Whitney, private citizens
12/7/76, Mr. & Mrs. Dean Mentzel, private citizens
12/8/76, Cheryl Kolander, private citizen
12/8/76, Jessalyn Floch, private citizen
12/8/76, Jean M. Smith, private citizen
12/8/76, Mr. & Mrs. A. A. Huebner, private citizens
12/9/76, Charlene Sawl, private citizen
12/9/76, Kern Sawl, private citizen

12/9/76, Kenneth R. Hull, private citizen
12/9/76, Dan Austin, Jr., private citizen
12/9/76, Carol Smith, private citizen
12/9/76, Mrs. V. L. Blakely, private citizen
12/9/76, Ted & Marie Chadwick, private citizens
12/9/76, Wilda Ferguson, private citizen
12/9/76, Christy Garritson-Mariner, private citizen
12/10/76, Richard M. Chasur, private citizen
12/10/76, LaRee Looney, private citizen
12/10/76, Steve Hostetler, private citizen
12/10/76, James Hunt, private citizen
12/10/76, Mr. & Mrs. Ronald Boehm, private citizens
12/11/76, Bruce Gordon, private citizen
12/11/76, Mrs. D. L. Swingley, private citizen
12/11/76, Harland O. & Norma L. Benson, private citizens
12/12/76, Rev. Gregory McAllister, private citizen
12/12/76, Jill Young, private citizen
12/12/76, Michael Brochu, private citizen
12/13/76, Wm. M. Dugas, private citizen
12/13/76, James R. Roaf & Celia M. Roaf, private citizens
12/13/76, Chris Boisuert, private citizen
12/13/76, James Whetzel, private citizen
12/13/76, Charles Wolfer, private citizen
12/13/76, Wm. Conway, private citizen
12/13/76, Marvin G. Pierce, private citizen
12/13/76, Lois E. Stone, private citizen
12/13/76, Gerald E. Raimille, private citizen
12/13/76, David R. Fritie, private citizen
12/13/76, Keith E. Murray, private citizen
12/13/76, Diane E. Lovelace, private citizen
12/13/76, Hubert Mapes, private citizen
12/13/76, Harry B. Goff, private citizen
12/13/76, K. Rasmussen, private citizen
12/13/76, Betty J. Maytel, private citizen
12/13/76, Wm. & Judith Waterbury, private citizens
12/13/76, Barbara J. Whetzel, private citizen
12/13/76, Vickey L. Ellis, private citizen
12/13/76, James C. Heilman, private citizen
12/13/76, Dustin E. Kinkaid, private citizen
12/13/76, Robin & Meg Cernak, private citizens
12/13/76, Ronald & Diana Lizotte, private citizens
12/13/76, Cheri K. Smith, private citizen
12/13/76, Ervin Whetzel, private citizen
12/17/76, Mary L. Rhoads, private citizen

NORTHWEST FOOD PROCESSORS ASSOCIATION
2828 S.W. CORBETT-
PORTLAND, OREGON 97201



OREGON
WASHINGTON
IDAHO
(503) 226-2848

December 16, 1976

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
DEC 16 1976

OFFICE OF THE DIRECTOR

Mr. William Young
Director Dept. of Environmental
Quality
1234 S.W. Morrison
Portland, OR 97205

Dear Mr. Young:

The Northwest Food Processors Association is requesting a delay in the Environmental Quality Commission's hearing scheduled for Monday, December 29, 1976 due to the lack of access to the State-wide Water Quality Management Plan, Volume IV, which was made publically available this week. It is not possible to make an educated presentation at a public hearing without all the pertinent data at hand and sufficient time to analyze it.

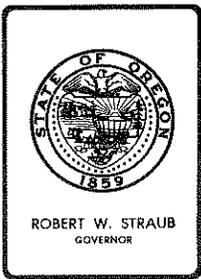
This letter formally informs you that a verbal request for a delay of the September 30 hearing was presented to Mr. Glen Carter and denied.

Sincerely,

Thomas M. Ethen
Assistant Manager
Technical Programs

TME/hmm

$$\frac{6}{\frac{6572A}{6}}$$



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. G, December 20, 1976, EQC Meeting

Georgia-Pacific Pulp and Paper Mill - Toledo
Request for Revised Compliance Schedule to
Meet Secondary Treatment Standards

Background

Georgia-Pacific Corporation has notified the Department that it will be unable to meet the more stringent effluent limitations required on May 31, 1977, as specified in their NPDES Waste Discharge Permit. These effluent limitations for BOD-5 are 9,500 pounds per day (monthly average) and 19,700 pounds per day (daily maximum). Georgia-Pacific has proposed a revised compliance schedule which would extend the date for meeting these BOD-5 effluent limitations to April 1, 1978.

At the December 21, 1972 EQC meeting, the Commission approved an expansion of the Georgia-Pacific Toledo Mill. The expansion included improvements to the mill which would permanently eliminate the discharge of waste to Yaquina Bay and would reduce the discharge of waste to the Pacific Ocean to Federal effluent guideline limits by December 31, 1974. The proposed improvements to the waste water control system were all in-plant (some not tried before in Oregon) and included recycle of white water from the primary clarifier, reduction of liquor losses by improved spill control facilities, and treatment of foul condensates by steam stripping.

In September, 1974, Georgia-Pacific realized it would not be able to meet Federal effluent guideline limits by June 1, 1975 with the waste control facilities originally proposed, though all discharges to Yaquina Bay had been permanently eliminated. (The original December 31, 1974 date was extended to June 1, 1975 in the permit because of delays in issuing the permit.) Steam stripping of the foul condensates was found to be ineffective at reducing BOD-5 and was abandoned. A program for reusing the foul condensates as pulp wash water was initiated, but this created some odor problems. Foul condensates for wash water could only be used in the modified kraft process (MKP) washers where the odors could be controlled. The remaining condensate had to be sewerred.



Contains
Recycled
Materials

In addition to several other in-plant controls, the Company proposed to meet the June 1, 1975 limits by installing a short-detention time, aerated lagoon to reduce BOD-5. The proposed lagoon was to be installed prior to June 1, 1975. Plans for the lagoon were approved by the Department in December, 1974.

In April, 1975, Georgia-Pacific notified us that the lagoon could not be installed and operational by June 1, 1975 and requested an extension until June 1, 1976. The extra year would allow them to install the lagoon, stabilize their in-plant controls and attain the Federal effluent guideline limits. Since we had expected that Georgia-Pacific would be unable to meet the June 1, 1975 date when we approved the lagoon plans, we approved the extension and issued a modified permit in August, 1975.

In May, 1976, Georgia-Pacific again notified us that, though they could meet the Federal guideline limitations for pH and suspended solids, they could not meet the BOD-5 limitations. In-plant controls for recycling wastes had not reduced the organic wastes. These wastes ultimately ended up in the plant's effluent in quantities which the small aerated lagoon could not handle.

At this point in time, after expenditures of approximately \$1.75 to 2.0 million, Georgia-Pacific was unsure if it wanted to continue pursuing a program based on in-plant reduction or install a conventional secondary treatment system similar to systems operated by other pulp mills. After several months of evaluation, Georgia-Pacific has notified the Department that they intend to install a conventional secondary treatment system. Corporate Headquarters has approved expenditure of \$4.0 to 4.5 million for the system. The proposed system could be installed by April 1, 1978.

Discussion

It is obvious that numerous dates have come and gone without Georgia-Pacific complying with its schedule for reducing its waste discharges. Nevertheless, the staff feels the Company has attempted in good faith to meet each revised time schedule. The attempt to achieve Federal guidelines with in-plant control relied heavily on previously untried technology. The Department has supported in-plant control technology (even though much of it is experimental) primarily because it would provide the better, overall solution for protecting the environment. Further, the current discharge of effluent from the Toledo Mill has had no significant impact on the water quality of the Pacific Ocean. Because there was no water quality problem, the Department felt the risk of trying to develop new technology was minimal.

Conclusion

July 1, 1977 is the statutory date established by the Congress of the United States for meeting the first round of Federal effluent guidelines. Consequently, the Department cannot modify the NPDES Permit to contain a compliance schedule (for meeting the Federal effluent guidelines) which extends beyond this date. Therefore, it appears that an order of the EQC will be necessary to establish a revised enforceable schedule at the state level.

Director's Recommendation

It is recommended that the Environmental Quality Commission issue an order to Georgia-Pacific Corporation, Toledo Pulp Mill, to install waste water control facilities and meet Federal effluent guidelines in accordance with the following time schedule:

- a) Submit detailed plans by April 1, 1977.
- b) Start construction by June 1, 1977.
- c) Submit progress report by November 1, 1977.
- d) Complete construction by March 1, 1978.
- e) Achieve operational level by April 1, 1978.

Because it is believed Georgia-Pacific Corporation has made an honest effort to comply with its permits, the Director recommends that the Company not be penalized for exceeding Federal effluent guidelines after July 1, 1977. It is recommended that the Commission direct the Department to take appropriate enforcement should any of the dates in the order be violated.

Michael Downs
for
WILLIAM H. YOUNG
Director

RJN:ts
12/8/76

ANALYSIS OF CHANGE BY PROGRAM AND ORGANIZATION
DEQ OPERATING BUDGET

	75-77 Estimated	77-79 Governor's Recommended	Change	% Change	% TOTAL Increase
<u>By Program</u>					
Air Quality	\$ 6,324,210	\$ 6,575,288	\$ 251,078	+04.0	12.2
Noise	233,520	467,625	234,105	+100.3	11.3
Water Quality	4,519,329	5,326,303	806,974	^{a/} +17.9	39.0
Solid Waste	1,048,859	1,434,966	386,107	+36.8	18.7
Agency Management	<u>1,314,125</u>	<u>1,703,514</u>	<u>389,389</u>	^{b/} +29.6	<u>18.8</u>
TOTAL	\$13,440,043	\$15,507,696	\$ 2,067,653	+15.4	100.0
<u>By Organization</u>					
Air Quality	\$ 4,600,375	\$ 4,674,018	\$ 73,643	+01.6	03.6
Water Quality	1,573,323	2,046,990	473,667	^{a/} +30.1	22.9
Solid Waste	649,511	715,119	65,608	+10.1	03.2
Regional Oper.	3,241,781	3,845,098	603,317	+18.6	29.2
Lab & Applied Research	2,060,928	2,522,957	462,029	+22.4	22.3
Agency Management	<u>1,314,125</u>	<u>1,703,514</u>	<u>389,389</u>	^{b/} +29.6	<u>18.8</u>
TOTAL	\$13,440,043	\$15,507,696	\$ 2,067,653	+15.4	100.0

LEGEND:

^{a/} Includes \$291,473 added Federal Funds for 208 Planning without which the Water Quality Program would increase 11.4% and Water Quality Division 11.6%.

^{b/} Includes \$269,243 in consolidated charges for fiscal processing and administration which were charged to Divisions in 75-77 biennium. These costs are consolidated in Agency Management for 77-79 to enhance budget control. Without this change, Agency Management increase would be \$120,146, or 09.1%, and each of the other Programs/Divisions would show slightly higher increases.

JCS:ahc
12/16/76

ANALYSIS OF CHANGE BY SUBPROGRAM 75-77 - 77-79
DEQ OPERATING BUDGET

	75-77 Estimated	77-79 Governor's Recommended	Change	%	%
				Change	TOTAL Increase
<u>Air Pollution Control</u>					
General	\$ 2,215,178	\$ 2,537,617	\$ 322,439		
Other	446,641	625,470	178,829		
Federal	<u>1,324,084</u>	<u>1,163,800</u>	<u>(160,284)</u>		
TOTAL	\$ 3,985,903	\$ 4,326,887	\$ 340,984	+08.6	+16.5
<u>Field Burning</u>					
General		120,149	120,149		
Other	185,000	72,500	(112,500)		
Federal					
TOTAL	\$ 185,000	\$ 192,649	7,649	+04	+00.4
<u>Vehicle Inspection</u>					
General	38,000		(38,000)		
Other	2,064,871	2,055,752	(9,119)		
Federal	<u>50,436</u>		<u>(50,436)</u>		
TOTAL	\$ 2,153,307	\$ 2,055,752	\$ (97,555)	-04.5	-04.7
<u>Noise Pollution</u>					
General	233,520	467,625	234,105		
Other					
Federal					
TOTAL	\$ 233,520	\$ 467,625	\$ 234,105	+100.3	+11.3
<u>Water Pollution Control</u>					
General	1,609,092	2,054,881	445,789		
Other	109,740	215,900	106,160		
Federal	<u>1,458,626</u>	<u>1,113,840</u>	<u>(344,786)</u>		
TOTAL	\$ 3,177,458	\$ 3,384,621	\$ 207,163	+06.5	+10.0

	75-77 Estimated	77-79 Governor's Recommended	Change	% Change	% TOTAL Increase
<u>Non-Point Source (208)</u>					
General	75,983	252,523	176,540		
Other					
Federal		291,473	291,473		
TOTAL	\$ 75,983*	\$ 543,996	\$ 468,013	+615.9*	+22.6
<u>Subsurface Sewage</u>					
General	607,707	705,590	97,883		
Other	613,253	636,300	23,047		
Federal					
TOTAL	\$ 1,220,960	\$ 1,341,890	\$ 120,930	+09.9	+05.9
<u>Water Supply</u>					
General	44,928	55,796	10,868		
Other					
Federal					
TOTAL	\$ 44,928	\$ 55,796	\$ 10,868	+24.2	+00.5
<u>Solid Waste</u>					
General	762,372	1,020,161	257,789		
Other					
Federal	90,502	151,936	61,434		
TOTAL	\$ 852,874	\$ 1,172,097	\$ 319,223	+37.4	+15.4
<u>Hazardous Wastes</u>					
General	92,285	161,949	69,664		
Other					
Federal	10,423		(10,423)		
TOTAL	\$ 102,708	\$ 161,949	\$ 59,241	+57.7	+02.9
<u>Recycling Information</u>					
General	93,273	100,920	7,647		
Other					
Federal					
TOTAL	\$ 93,273	\$ 100,920	\$ 7,647	+08.2	+00.4

	75-77 Estimated	77-79 Governor's Recommended	Change	% Change	% TOTAL Increase
<u>Agency Management</u>					
General	545,795	779,454			
Other	748,873	924,060			
Federal	<u>19,457</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
TOTAL	\$ 1,314,125	\$ 1,703,514	\$ 389,389**	+29.6	+18.8**
<u>All DEQ</u>					
General	6,318,137	8,256,665			
Other	4,168,378	4,529,982			
Federal	<u>2,953,528</u>	<u>2,721,049</u>	<u> </u>	<u> </u>	<u> </u>
TOTAL	<u>\$13,440,043</u>	<u>\$15,507,696</u>	<u>\$ 2,067,653</u>	<u>+15.4</u>	<u>100.0</u>

* Distorted due to addition of Federal Funds (\$872,000) after July 1 cutoff date for budget estimates.

**Distorted by consolidation of administrative costs charged to programs in 75-77 Biennium in amount of \$269,243. Without this distortion, would be a 9.0% increase.

SUMMARY OF "WORKLOAD INCREASE" REQUEST
DEQ 77-79 BUDGET

Noise Program, Air Quality Division

2 Positions; \$102,767 (General Fund): Environmental Technician 1
Public Health Engineer 2

Provide increased noise monitoring training of field staff, data analysis, complaint handling, and technical review of sources of noise.

All Programs, Regional Operations Division

3 Positions; \$108,934 (General Fund): Environmental Technician 1, Pendleton
Sanitarian, Klamath Falls
Sanitarian, Coos Bay

Meet workload demands in the Subsurface Sewage Program and eliminate backlogs in air, water, and solid waste inspections and permits. Assist in Noise Program.

Water Quality Program, Laboratory & Applied Research Division

2 Positions; \$79,067 (General Fund): Environmental Specialist 2 (Biologist)
Environmental Technician 3

Conduct Statewide biological monitoring program as a part of a general reorganization of the existing water monitoring network and sampling patterns. Provide specific support to planning and standards improvement.

SUMMARY OF "PROGRAM IMPROVEMENT" REQUESTS
DEQ 77-79 BUDGET

Air Pollution Control

Air Quality Division

\$145,000 (General Fund)

Eugene Particulate Dispersion Model - \$10,000
Portland Photochemical Oxidant Model - 10,000
Statewide PSD Class I Study - 25,000
AQMA Planning Studies - 100,000

Laboratory & Applied Research Division

\$92,280 (General Fund)

Air quality monitoring equipment to replace obsolete equipment, measure air contaminants not now measured, and improve telemetering of data for better data capture, generally in support of better analytical input to needed control strategy revisions.

Non-Point Source (208)

Water Quality Division

\$260,869 (Federal Funds)

Complete 18 of 28-month project for non-point source control program developed. Approved by August, 1976, Emergency Board.

Laboratory & Applied Research Division

\$30,604 (Federal Funds)

Same as that given for Water Quality Division above.

Recycling Information

Solid Waste Division

\$2,600 (General Fund)

Extend recycling information service to wider portions of the State by offering toll free telephone service.

Agency Management

Administrative Services Division

\$2,000 (General Fund)

Data Processing to supplement Executive Department's Accounting System with management reports.

JCS:ahc
12-16-76



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB
GOVERNOR

To: ENVIRONMENTAL QUALITY COMMISSION
From: Director
Subject: Agenda Item No. J; December 20, 1976, EQC Meeting

Variance Request by NARAD, Inc., (North American Research and Development, Inc.), To Operate Permaneer Corporation Particleboard Plant in White City

Introduction

At its October 24, 1975 meeting the EQC granted Permaneer Corporation a variance to operate its White City particleboard plant. The variance was required because the plant was out of compliance with applicable Air Quality Regulations. The variance required Permaneer to implement an extended compliance attainment program which would bring the facility into compliance.

The variance request for the extended compliance program was based on corporate financial difficulties. An additional variance requirement was that Permaneer would make a biannual report on the status of the compliance attainment program and on any change in the financial status of the company.

The compliance program that Permaneer submitted, and which was approved, consisted of five individual compliance programs that extended through March, 1979 (see Attachment I). Two additional individual compliance programs might be necessary if controls are required for the two rotary particle driers at the plant; the need for controls on these two units would be established by particulate emissions source tests after the other five systems are brought into compliance.

Permaneer Corporation filed for bankruptcy in June, 1976. Although the company has continued to operate its Dillard particleboard plant (under regulations stipulated by the U. S. District Court) the White City plant has not been operated since June, 1975.



Contains
Recycled
Materials

Permaneer has kept the Department informed of its compliance status and of its financial situation. As of its last compliance status report which is dated October 27, 1976, the company indicated that it was behind in two of the five individual compliance programs at White City; the other three programs have not yet commenced.

The lag in the compliance program at the White City plant was due to bankruptcy. Since the plant was not being operated, the lag in the compliance program did not affect the air quality in the White City area. However, if and when a decision is made to restart the facility, the compliance discrepancies will have to be resolved.

Background

On December 2, 1976 the Department met with representatives of Permaneer Corporation and NARAD, Inc. We were informed that NARAD, Inc., was interested in purchasing Permaneer's White City particle-board plant and resuming normal operation there as soon as possible.

The Department was informed that NARAD would operate the facility under the name Down River Forest Products. About 110 hourly employees and 20 supervisory personnel would be employed.

NARAD, Inc., is in the process of purchasing the White City facility. However, due to the bankruptcy proceedings, there are several parties involved in the negotiations, including the U. S. District Court, which is conducting the bankruptcy proceedings, and the general creditors. NARAD wishes to conclude the purchase as soon as possible, hopefully in December. Due to the complexities of the negotiations it is not possible to determine when they will be concluded; there is also an outside chance that the purchase will not be consummated.

One of NARAD's concerns is that if they purchase the facility, will they be able to operate it legally? The Department advised NARAD, Inc., that if they submitted a compliance program, the Department would review it for acceptability and then consider it in the recommendation to the Environmental Quality Commission for NARAD's required variance request. The staff emphasized the desirability of shortening the compliance program granted to Permaneer because of recorded air quality conditions relative to particulates in the Medford area.

Discussion

The Department received a letter (Attachment II) from representatives of NARAD, Inc., dated December 8, 1976. This letter which included a compliance schedule, requests a transfer of the Air Contaminant Discharge Permit, No. 15-0027, from Permaneer Corporation to NARAD, Inc., and a variance to operate the White City particleboard plant out of compliance with the applicable Air Quality Regulations.

NARAD, Inc., proposes to implement essentially the same compliance program that was granted to Permaneer. In addition they will make up for the lost time in implementing the first two individual compliance schedules on which Permaneer fell behind. Time, however, is required to plan and to order the necessary equipment and to install it into the existing process.

The sequence of the individual compliance schedules in the compliance program (see Attachment III) was designed to achieve the largest emission reductions first. The compliance attainment program is scheduled over a period of about two years in order to allow for the financing and implementation of the abatement control programs.

For the White City plant, baghouse filters have been selected as the primary means of controlling particulate emissions. Baghouse filters represent the "highest and best practicable" means of controlling the emissions from all systems in this situation with the exception of the rotary particle driers (Systems No. 5 and 6). Baghouse filters are also effective in eliminating visible emissions.

Typical emissions from baghouse filters are about one or two lbs/hr. Thus when step number five (Attachment III) has been implemented, the particulate emission level will be about 61.0 lbs/hr. Therefore, particulate emissions from one or both of the rotary particle driers may have to be controlled to meet the plant-wide emission limitation of 60.0 lbs/hr. based on the Department's process weight limit under the particleboard rules.

As the present plant conditions are beyond the control of the NARAD, Inc., they requested a variance under ORS, Chapter 468.345(b), which states "The Environmental Quality Commission may grant specific variances which may be limited in time from the particular requirements of any rule, regulation or order...if it finds that...special circumstances render strict compliance unreasonable, burdensome or impractical due to special physical conditions or cause."

The Department has one additional concern which should be discussed. The Medford area has been designated as a "non-attainment area" as regards compliance with ambient air standards. The Department is required to develop new control strategies that will further reduce particulate emissions from point sources in this area. Control of particulates by baghouse filters is considered to be the "highest and best practicable treatment" for emissions of this type, and when installed no further control can be expected for baghouse controlled emission points. However, more stringent controls may be required for other emission points.

Any controls on the particle driers will be expected to be equivalent to "highest and best practicable treatment". All other systems will use baghouse filter controls. Thus the compliance program for the White City plant is considered adequate for this point in time.

The request to transfer the Air Contaminant Discharge Permit is being processed by the Department and will be completed if the sale is concluded and if the Environmental Quality Commission grants the requested variance.

Summary and Conclusions

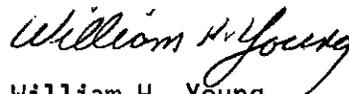
1. Permaneer Corporation owns a particleboard plant in White City. The plant has not been operated since June, 1975, and it is for sale.
2. Permaneer was granted a variance by the EQC at its October 24, 1975, meeting to operate the plant out of compliance while implementing an extended compliance attainment program.
3. Permaneer Corporation filed for bankruptcy in the U. S. District Court in June, 1976.
4. Due to their financial problems, Permaneer has been unable to implement its compliance program at the White City facility and they are behind in two of the five individual compliance schedules; since the plant is not operating this has not caused any air quality problems.
5. NARAD, Inc., is interested in purchasing the White City facility from Permaneer and to resume normal operation at the plant as soon as possible. They plan to operate the plant under the name Down River Forest Products, and would employ about 130 people.
6. Due to the bankruptcy proceedings, negotiations for the sale involve several parties and the negotiations are complex and time-consuming.
7. NARAD is essentially requesting the same variance and compliance schedule currently held by Permaneer, conditioned to the transfer of ownership. They propose to make up for the lost time in implementing the Permaneer variance (for two of the five individual compliance schedules) and continue with the same schedules for the other three individual compliance schedules. If at the completion of the five individual compliance schedules, it is necessary to implement controls on the two particle driers, they have indicated they are ready to make this effort.

8. The Department favors a biannual reporting of the progress of the compliance attainment program.
9. In accordance with ORS 468.345 the Environmental Quality Commission is empowered to grant this variance.
10. If NARAD does not purchase the plant by April 1, 1977, this variance should lapse.

Director's Recommendation

The Director recommends that the Environmental Quality Commission enter a finding that strict compliance is inappropriate because it would result in the curtailment of the operation of the White City facility and that the Commission grant NARAD, Inc., a variance to operate the White City facility out of compliance with OAR Chapter 340, Sections 21-030 and 25-320 until December 31, 1979 subject to the completion of the sale and subject to the following conditions:

1. NARAD, Inc., shall operate all existing facilities at maximum efficiency and effectiveness to keep emissions as low as possible.
2. The compliance attainment programs submitted to the Department by NARAD, Inc., (Attachment II) be incorporated into the Air Contaminant Discharge Permit, No. 15-0027, for the White City facility.
3. A six month review report on the progress and validity of the compliance attainment program will be submitted to the Department by NARAD, Inc., for the duration of this variance; the first reporting date will be July 1, 1977.
4. This variance may be revoked if the Department determines that NARAD, Incorporated is not complying with the conditions of the variance or if such operation causes a public nuisance condition greater than anticipated.
5. This variance becomes void, if NARAD, Inc., does not purchase the White City plant by April 1, 1977.


William H. Young
Director

Attachments I, II, and III.
12/13/76 AFB:1b

December 8, 1976

Department of Environmental Quality
Air Quality Control Division
1234 S. W. Morrison
Portland, Oregon 97205

Attention: Mr. Al Burkhardt

Dear Mr. Burkhardt:

RE: AQ File #15-0027
Variance Request & Proposed
Transfer of Ownership

Enclosed you will find two completed copies of the Application for Air Contaminate Discharge Permit forms as well as a Detailed Compliance Schedule indicating the five increments of compliance for the White City, Oregon facility.

This application is being submitted to you to comply with requirements for a proposed change of ownership from Permaneer Corporation to Down River Forest Products, Inc.; and applies only to the White City, Oregon, location.

Preparations for the sale of the facility to Down River Forest Products are progressing very satisfactorily, and time commitments dictate we proceed as quickly as possible with a variance request. We are requesting a variance under ORS 468.345 Section b for the following reasons: Cash requirements for the start-up of the White City, Oregon facility are rather severe in several areas. Since the plant has been idle for some 18 months, much of the equipment will be unusable in its present conditions; and requirements for maintenance prior to start-up will be substantial. Training programs for returning hourly personnel must be extensive, and dollar returns on initial production will be very low for several weeks of the start-up period. In addition to these items, it will be necessary to invest a substantial amount of money in inventories of finished goods, work-in-process materials and supplies. Although an exact figure has not yet been determined, these items plus several other miscellaneous items could total in excess of \$800,000.

Department of Environmental Quality
Air Quality Control Division
Attn: Mr. Al Burkhart
December 8, 1976

Page Two

Supplier delivery times were also considered when the Compliance Schedule was formed. As indicated in the Supplier Delivery Time column, some items necessary for compliance have a rather lengthy delivery time. These delivery times have been combined with estimated cash requirements to show a final compliance schedule. As can be noted from the Compliance Schedule, it would be Down River's intention to immediately issue purchase orders covering the dry milling system which would, upon completion, reduce plant-wide emissions by 31.8%.

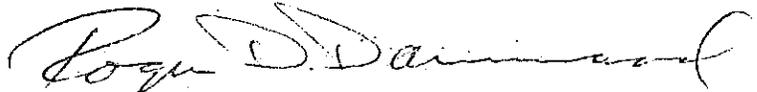
The Compliance Schedule takes all of the above factors into consideration and attempts to reduce the most offensive systems first.

I would like to point out that the signature company has not yet been formed. Plans are underway to form the new company in conjunction with the sale of the Permaneer property to Down River. I am signing this letter on behalf of the new company by permission of Mr. Archie Richardson, President of NARAD, Inc. NARAD, Inc. is the parent company and operates it's plants under the Down River name.

If further information is required, I would be very happy to supply it to you.

Very truly yours,

DOWN RIVER FOREST PRODUCTS, INC.



ROGER D. DAMEWOOD
Vice President & General Manager
White City, Oregon

RDD:bb
Enclosures (2)

COMPLIANCE ATTAINMENT PROGRAM, NARAD, INC.

System	Modification	Estimated Total Cost	Supplier Delivery Time	Monthly Budget	Plans & Specifications	Purchase Orders	Construction Start	Completed Construction
Milling	Bag House	\$ 40,000	90-120 Days	\$20,000	Jan.* '77	Jan. '77	Jan. '77	June '77
Conveyer & Relay	Bag House & Redesign	\$230,000	120-150 Days	\$20,000	Jan.* '77	June '77	June '77	Dec '77
Milling	Bag House & Redesign	\$ 80,000	120-150 Days	\$20,000	Aug. '77	Oct. '77	Dec. '77	May '77
Picker Roll Recovery	Bag House & Redesign	\$ 95,000	120-150 Days	\$20,000	Jan. '78	Mar. '78	May '78	Oct '77
Trim/Cleanup	Bag House & Redesign	\$ 55,000	90-120 Days	\$20,000	July '78	Sept. '78	Nov. '78	Feb '77
Dryer	If Required Unknown	\$220,000	Unknown	\$20,000	June '79	Unknown	Unknown	Ma '8
Dryer	If Required Unknown	\$220,000	Unknown	\$20,000	June '79	Unknown	Unknown	Ma '8

*Already Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY

Staff Summary

Permaneer White City, Emission Reduction Program

Step	System No.	Date Compliance Achieved	Emission Reduction (lbs/hr)	Plant-Wide Emissions (lbs/hr)	Percent Reduction*	Cost
				265.40		
1	7 & 8	9/76	74.58	190.82	31.82	30,000
2	14	1/78	51.22	139.60	21.85	220,000
3	3	6/78	35.20	104.40	15.02	75,000
4	9 & 11	11/78	32.54	71.86	13.88	80,000
5	13	3/79	10.86	61.00	4.63	46,000
6	5 & 6	5/81	30.00	31.00	12.80	400,000

Plant wide emission limitation = 60.0 lbs/hr

* Percent Reduction = $\frac{\text{Incremental Reduction}}{\text{Total Expected Reduction}}$

VOLUME I

STATE-WIDE WATER QUALITY MANAGEMENT PLAN

BENEFICIAL USES, POLICIES, STANDARDS, AND TREATMENT CRITERIA

FOR

OREGON

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

DECEMBER, 1976

STATE-WIDE WATER QUALITY MANAGEMENT PLAN
BENEFICIAL USES, POLICIES, STANDARDS, AND TREATMENT CRITERIA FOR OREGON
Proposed for Adoption as Administrative Rules

Preface

The sections which follow together with the applicable laws of the State of Oregon and the applicable regulations of the Environmental Quality Commission set forth Oregon's plans for management of the quality of public waters within the State of Oregon.

Under this plan, the Department of Environmental Quality will continue to manage water quality by evaluating each discharge and activity, whether existing or a new proposal, on a case-by-case basis, based on best information currently available and within the limiting framework of minimum standards treatment criteria and policies which are set forth in the plan.

Definitions applicable to all basins unless context requires otherwise:

- A. "BOD" means 5-day 20° C. Biochemical Oxygen Demand.
- B. "DEQ" or "Department" means the Oregon State Department of Environmental Quality.
- C. "DO" means Dissolved Oxygen.

- D. "EQC" means the Oregon State Environmental Quality Commission.
- E. "Estuarine waters" means all mixed fresh and oceanic waters in estuaries or bays from the point of oceanic water intrusion inland to a line connecting the outermost points of the headlands or protective jetties.
- F. "Industrial waste" means any liquid, gaseous, radioactive or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources.
- G. "Marine waters" means all oceanic, offshore waters outside of estuaries or bays and within the territorial limits of the State of Oregon.
- H. "mg/l" means milligrams per liter.
- I. "Pollution" means such contamination or other alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such radioactive or other substance into any waters of the state which either by itself or in connection with any other substance present, will or can reasonably be expected to create a public nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.

- J. "Public water" means the same as "waters of the state".
- K. "Sewage" means the water-carried human or animal waste from residences, buildings, industrial establishments or other places together with such groundwater infiltration and surface water as may be present. The admixture with sewage as herein defined of industrial wastes or wastes, as defined in subsections (F) and (M) of this section, shall also be considered "sewage" within the meaning of this division.
- L. "SS" means Suspended Solids.
- M. "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive, or other substances which will or may cause pollution or tend to cause pollution of any water of the state.
- N. "Waters of the state" include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial inland or coastal, fresh or salt, public or private (except those private waters which do not connect or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

O. "Low Flow Period" means the flows in a stream resulting from primarily groundwater discharge or baseflows augmented from lakes and storage projects during the driest period of the year. The dry weather period varies across the state according to climate and topography. Wherever the Low Flow Period is indicated in the Water Quality Management Plans, this period has been approximated by the inclusive months. Where applicable in a waste discharge permit, the Low Flow Period may be further defined.

P. "Secondary Treatment" as the following context may require for:

1. "Sewage wastes" means the minimum level of treatment mandated by EPA regulations pursuant to Public Law 92-500.
2. "Industrial and other waste sources" imply control equivalent to Best Practicable Treatment (BPT).

III [E.]

Policies and Guidelines Generally Applicable to All Basins

- A. 1. In order to maintain the quality of waters in the State of Oregon [~~Individual Basin Name~~], it is the policy of the EQC to require that growth and development be accommodated by increased efficiency and effectiveness of waste treatment and control such that measurable future discharged waste loads from existing sources do not exceed presently allowed discharged loads [~~or specific waste load allocations where otherwise identified.~~] unless otherwise specifically approved by the EQC.

- B. 2. For any new [~~or substantially modified~~] waste sources, alternatives [~~for treatment and disposal of waste shall be fully evaluated. Alternatives~~] which utilize reuse or disposal with no discharge to public waters shall be given highest priority for use wherever practicable. New source discharge may be approved by the Department if no measurable adverse impact on water quality or beneficial uses will occur. Significant or large new sources must be approved by the Environmental Quality Commission.

- C. 3. No discharges of wastes to lakes or reservoirs shall be allowed without specific approval of the EQC.

- D. 4. [~~Log ponds shall be separated from active flowing streams. Ponds shall be operated with no overflow during dry weather periods.~~] Log handling in public waters shall conform to current EQC policies and guidelines.

- E. 5. Sand and gravel removal operations shall be conducted pursuant to a permit from the Division of State Lands and separated from the active flowing stream by a watertight berm wherever physically practicable. Recirculation and reuse of process waters shall be required wherever practicable. Discharges, when allowed or seepage or leakage losses to public waters shall not cause a violation of water quality standards or adversely affect legitimate beneficial uses.
- F. 6. Logging and forest management activities shall be conducted in accordance with the Oregon Forest Practices Act so as to minimize adverse effects on water quality.
- G. 7. Road building and maintenance activities shall be conducted in a manner so as to keep waste materials out of public waters and minimize erosion of cut banks, fills and road surfaces.
- H. 8. In order to improve controls over non-point sources of pollution, federal state and local resource management agencies will be encouraged and assisted to coordinate planning and implementation of programs to regulate or control runoff, erosion, turbidity stream temperature, stream flow, and the withdrawal and use of irrigation water on a basin wide approach so as to protect the quality and beneficial uses of water and related resources.

Such programs may include but not be limited to the following:

1. a. Development of projects for storage and release of suitable quality waters to augment low stream flow.
2. b. Urban runoff control to reduce erosion.
3. e. Possible modification of irrigation practices to reduce or minimize adverse impacts from irrigation return flows.
4. d. Stream bank erosion reduction projects.

IV [F.] Implementation Program Applicable to All Basins

- A. 1. No waste treatment and disposal facilities shall be constructed or operated and no wastes shall be discharged to public waters without obtaining a permit from the Department as required by ORS [468-750] 468.740.
- B. 2. Plans for all sewage and industrial waste treatment, control and disposal facilities shall be submitted to the Department for review and approval prior to construction as required by ORS [454-415] 468.742.

C. 3. Minimum [requirements] design criteria for waste treatment and control facilities prescribed under this plan and such other waste treatment and controls as may be necessary to insure compliance with the water quality standards contained in this plan shall be provided in accordance with specific permit conditions for those sources or activities for which permits are required and the following implementation program:

1. a. For new or expanded waste loads or activities, fully approved treatment or control facilities or both shall be provided prior to discharge of any wastes from the new or expanded facility or conduct of the new or expanded activity.
2. b. ~~[Except as noted in Paragraph 6--below,]~~ For existing waste loads or activities [necessary] additional treatment or control facilities ~~[or both]~~ necessary to correct specific unacceptable water quality conditions shall be provided in accordance with a specific program and timetable incorporated into the waste discharge permit for the individual discharger or activity. In developing treatment requirements and implementation schedules for existing installations or activities, consideration shall be given to the impact upon the overall environmental quality including air, water, land use and aesthetics.

3. e. Wherever minimum [requirements] design criteria for waste treatment and control facilities set forth in this plan are more stringent than applicable federal standards and treatment levels currently being provided, upgrading to the more stringent requirements will be deferred until it is necessary to expand or otherwise modify or replace the existing treatment facilities [unless unacceptable water quality conditions are being caused by the present discharge deferral will be acknowledged in the permit for the source.

4. d. Where planning or design or construction of new or modified waste treatment and controls to meet prior applicable state or federal requirements is underway at the time this plan is adopted, such plans, design or construction may be completed under the requirements in effect when the project was initiated. Timing for upgrading to meet more stringent future requirements will be as provided in Paragraph [e.] 3. above.

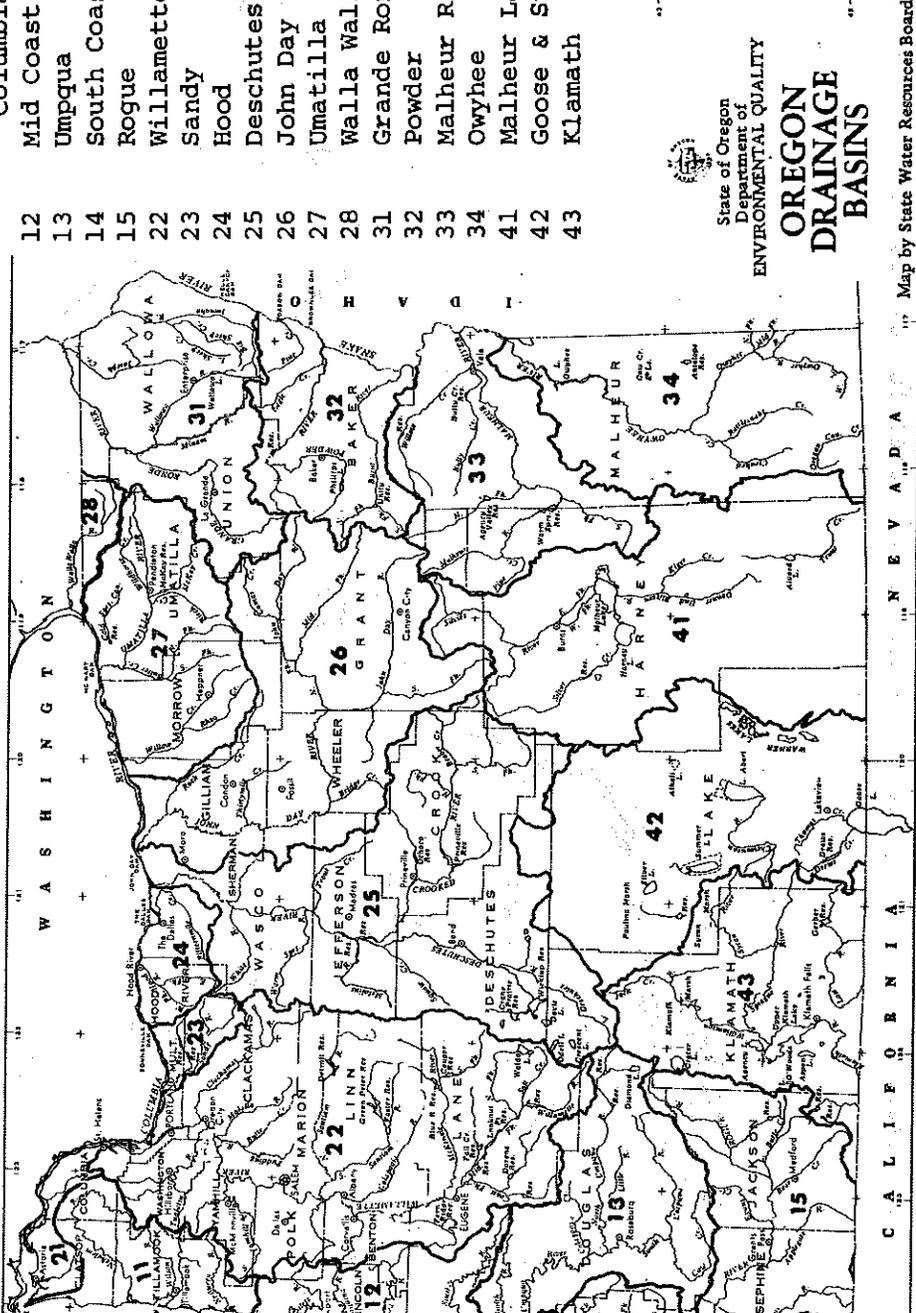
D. 4. Confined animal feeding operations shall be regulated pursuant to rules contained in OAR Chapter 340, Sections 51-005 through 51-080 in order to minimize potential adverse effect on water quality.

E. 5. Programs for control of pollution from non-point sources when developed by the Department, or by other agencies pursuant to Section 208 of PL 92-500 and approved by the Department, shall as applicable, be incorporated into this plan by amendment via the same process used to adopt the plan unless other procedures are established by law.

- F. 6. Where minimum requirements of federal law or enforceable regulations are more stringent than specific provisions of this plan, the federal requirements shall prevail.
- G. 7. Within a framework of statewide priority and available resources, the Department will monitor water quality within the basin for the purposes of evaluating conformance with the plan and developing information for future additions or updating.
- H. 8. The EQC recognizes that the potential exists for conflicts between Water Quality Management plans and the Land Use Plans and Resource Management plans which other agencies must develop pursuant to law. In the event any such conflicts develop, it is the intent of the Department to meet with the responsible agency to formulate proposed revisions to one or both plans so as to resolve the conflict. Revisions will be presented for adoption via the same process used to adopt the plan unless other specific procedures are established by law.

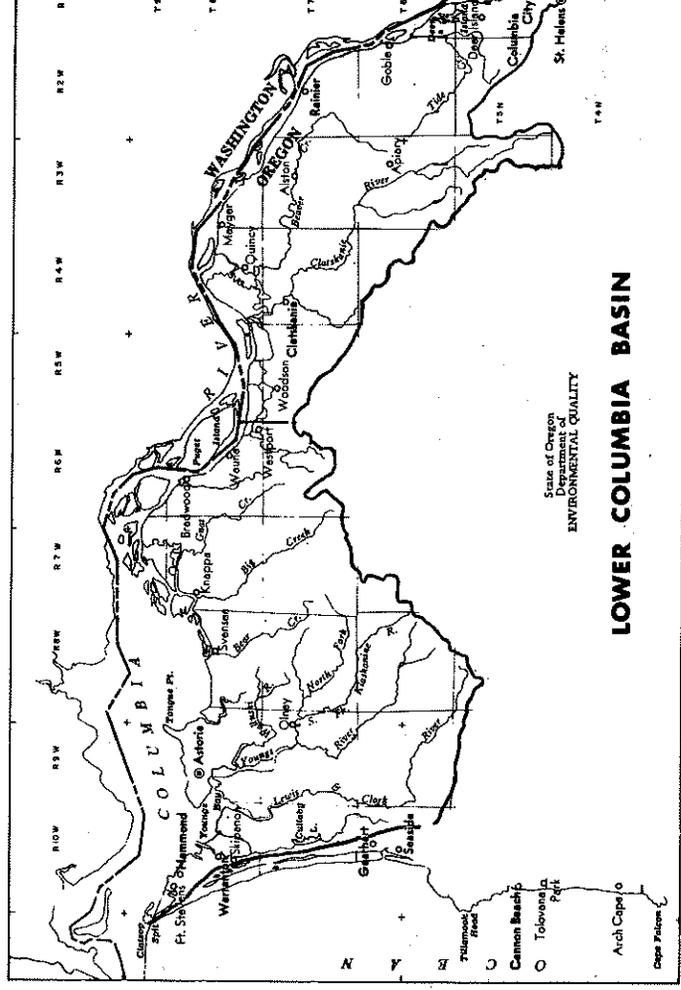
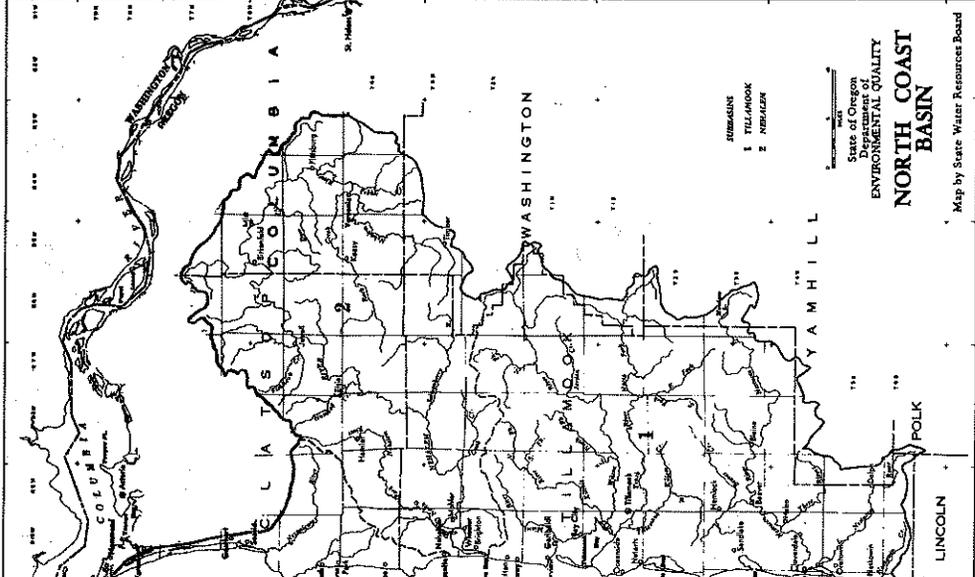
SIN INDEX MAP

Basin No.	Basin	Special S	Page N
11-21	North Coast - Lower		
12	Columbia	12	
13	Mid Coast	25	
14	Umpqua	36	
15	South Coast	49	
22	Willamette	60	
23	Sandy	72	
24	Hood	88	
25	Deschutes	100	
26	John Day	112	
27	Umatilla	125	
28	Walla Walla	136	
31	Grande Ronde	148	
32	Powder	159	
33	Malheur River	171	
34	Owyhee	183	
41	Malheur Lake	194	
42	Goose & Summer Lakes	205	
43	Klamath	216	
		227	



V North Coast - Lower Columbia Basin

[A-Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



BB]. Beneficial Water Uses to be Protected

Water quality in the North Coast-Lower Columbia River Basin shall be managed to protect the recognized beneficial uses as follows:

	Estuary and Adjacent Marine Waters	Columbia River Mouth to RM 86	All Other Streams and Tributaries Thereeto
Public Domestic Water Supply		X	X
Private Domestic Water Supply		X	X
Industrial Water Supply	X	X	X
Irrigation		X	X
Livestock Watering		X	X
Anadromous Fish Passage	X	X	X
Salmonid Fish Rearing	X	X	X
Salmonid Fish Spawning	X	X	X
Resident Fish & Aquatic Life	X	X	X
Wildlife & Hunting	X	X	X
Fishing	X	X	X
Boating	X	X	X
Water Contact Recreation	X	X	X
Aesthetic Quality	X	X	X
Hydro Power			
Commercial Navigation & Transportation	X	X	

• Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the North Coast-Lower Columbia River Basin:
 - a. Dissolved Oxygen (DO):
 - 1) Fresh Waters: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.
 - 2) Marine and Estuarine Waters (Outside of zones of upwelled marine waters naturally deficient in DO): DO concentrations shall not be less than 6 mg/l for estuarine waters, or less than saturation concentrations for marine waters.
 - 3) Columbia River: DO concentrations shall not be less than 90 percent of saturation.

b. Temperature:

- 1) Columbia River: [~~Same as below except 68° F, 67.5°-F, and 66° F.~~] No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less; or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
- 2) All Other Freshwater Streams and Tributaries thereto: No measurable increases shall be allowed when stream temperatures are 58° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 57.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 56° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
- 3) Marine and Estuarine Waters: No significant increase above natural background temperatures shall be allowed, and water temperatures shall not be altered to a degree which creates or can reasonably be expected to create an adverse effect on fish or other aquatic life.

c. Turbidity (Jackson Turbidity Units, JTU):

No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the following ranges:

1) Marine [~~and-Estuarine~~] Waters: 7.0 - 8.5

2) Estuarine and Fresh Waters: 6.5 - 8.5

e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):

1) Columbia River from the Highway 5 Bridge between Vancouver and Portland to the Mouth: Average concentrations shall not exceed 1,000 per 100 milliliters, [~~or exceed this value in more than 20% of the samples.~~] with 20% of samples not to exceed 2,400 per 100 ml.

2) Marine Waters and Estuarine Shellfish Growing Waters: [~~Average~~] Median concentrations shall not exceed 70 per 100 ml.

- 3) [Freshwaters and] Estuarine Waters other than Shellfish Growing Waters: Average concentrations shall not exceed 240 per 100 milliliters or exceed this value in more than 20% of the samples.
- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.

- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.

o. Dissolved Chemical Substances:

[~~l~~] ~~Satamba-River~~] Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

Arsenic (As)	mg/l
	0.01
Barium (Ba)	1.0

Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Total dissolved solids -- <u>Columbia River</u>	500.0
<u>Total dissolved solids -- all other fresh water streams and tribu- taries thereto</u>	100.0
Zinc (Zn)	0.01

[2] All other Freshwater Streams and Tributaries thereto: Same as above except TDS is 100 mg/l.]

3. Where the natural quality parameters of waters of the North Coast-Lower Columbia River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.
4. Mixing Zones:
 - a. The Department may suspend the applicability of all or part of the water quality standard

- set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
- b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.
- c. In establishing a mixing zone in a waste discharge permit the Department:
- 1) May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
 - 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

]. Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F.3] IV.C., prior to discharge of any wastes from any new or modified facility to any waters of the North Coast-Lower Columbia River Basin, such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.]

1. Sewage Wastes:

- a. During periods of low stream flows (approximately May 1 to October 31): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control [shall be provided].
- b. During the period of high stream flows (approximately November 1 to April 30) and for direct ocean discharges: A minimum of [sewerage treatment] Secondary Treatment or equivalent [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

- a. [All industrial waste shall receive.] After maximum practicable inplant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [~~before being discharged~~].
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:
 - 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.

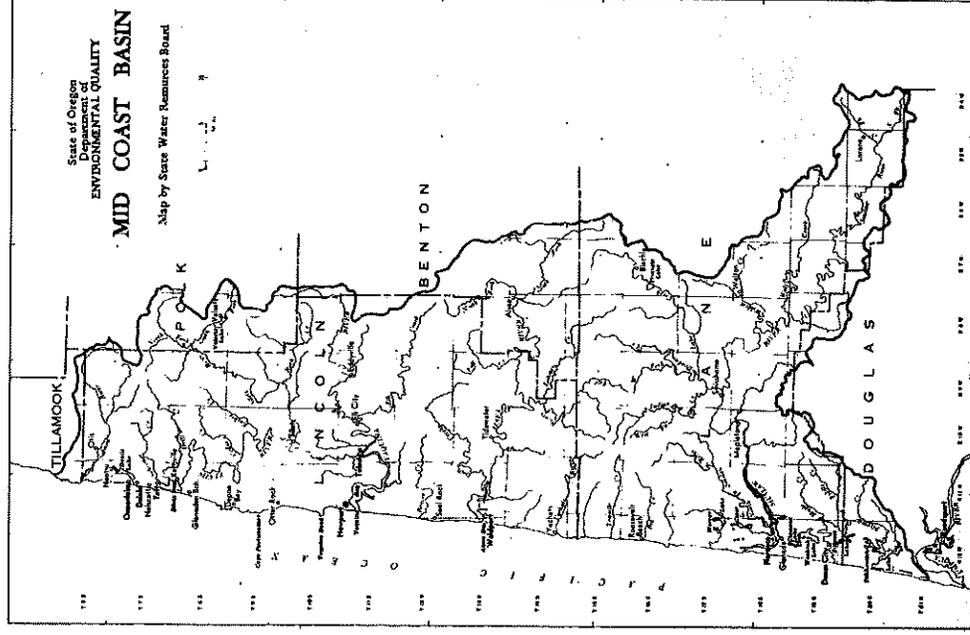
- d. Industrial cooling waters containing significant heat loads shall be subjected to offstream cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

NOTE:

E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

VI Mid Coast Basin

[A--Preface--] (Note: Preface consolidated for all basins into Sections I and II.)



Beneficial Water Uses to be Protected

Water quality in the Mid Coast Basin shall be managed to protect the recognized beneficial uses as follows:

<u>Beneficial Uses</u>	<u>Estuaries & Adjacent Marine Waters</u>	<u>Fresh Waters</u>
Public Domestic Water Supply		X
Private Domestic Water Supply		X
Industrial Water Supply	X	X
Irrigation		X
Livestock Watering		X
Marine Fish Passage	X	X
Marine Fish Rearing	X	X
Marine Fish Spawning	X	X
Resident Fish & Aquatic Life	X	X
Wildlife & Hunting	X	X
Fishing	X	X
Boating	X	X
Water Contact Recreation	X	X
Aesthetic Quality	X	X
Hydro Power		X
Commercial Navigation & Transportation	X	

Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Mid Coast Basin:
 - a. Dissolved Oxygen (D0):
 - 1) Fresh Waters: D0 concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.
 - 2) Marine and Estuarine Waters (Outside of zones of upwelled marine waters naturally deficient in D0): D0 concentrations shall not be less than 6 mg/l for estuarine waters, or less than saturation concentrations for marine waters.

b. Temperature:

- 1) Fresh Waters: No measurable increases shall be allowed when stream temperatures are 64° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 63.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 62° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
 - 2) Marine and Estuarine Waters: No significant increase above natural background temperatures shall be allowed, and water temperatures shall not be altered to a degree which creates or can reasonably be expected to create an adverse effect on fish or other aquatic life.
- c. Turbidity (Jackson Turbidity Units, JTU):
No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.
- d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the following ranges:

1) Marine [and Estuarine] Waters: 7.0 - 8.5

2) Estuarine and Fresh Waters: 6.5 - 8.5

- e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):
- 1) Marine Waters and Estuarine Shellfish Growing Waters: [Average] Median concentrations shall not exceed 70 per 100 ml.
 - 2) [~~Fresh Waters and~~] Estuarine Waters other than Shellfish Growing Waters: Average concentrations shall not exceed 240 per 100 ml. or exceed this value in more than 20% of the samples.
- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.

- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

Arsenic (As)	mg/l
Barium (Ba)	0.01
Boron (Bo)	1.0
	0.5

Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Total dissolved solids	100.0
Zinc (Zn)	0.01

3. Where the natural quality parameters of waters of the Mid Coast Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. Mixing Zones:

- a. The Department may suspend the applicability of all or part of the water quality standard set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
- b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.

c. In establishing a mixing zone in a waste discharge permit the Department:

- 1) May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,
- 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
- 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of any wastes from any new or modified facility to any waters of the Mid Coast Basin, such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation shall operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to S 468.740 and recognize that the actual performance level may at times be less than the design criteria requirements for operation and discharge standards shall be established in permits pursuant to ORS 468

1. Sewage Wastes:

- a. During periods of low stream flows (approximately May 1 to October 31): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control [shall be provided].
- b. [For direct ocean discharge and] During the period of high stream flows (approximately November 1 to April 30) and for direct ocean discharges: A minimum of [secondary] Secondary Treatment or equivalent [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receive stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by EQC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

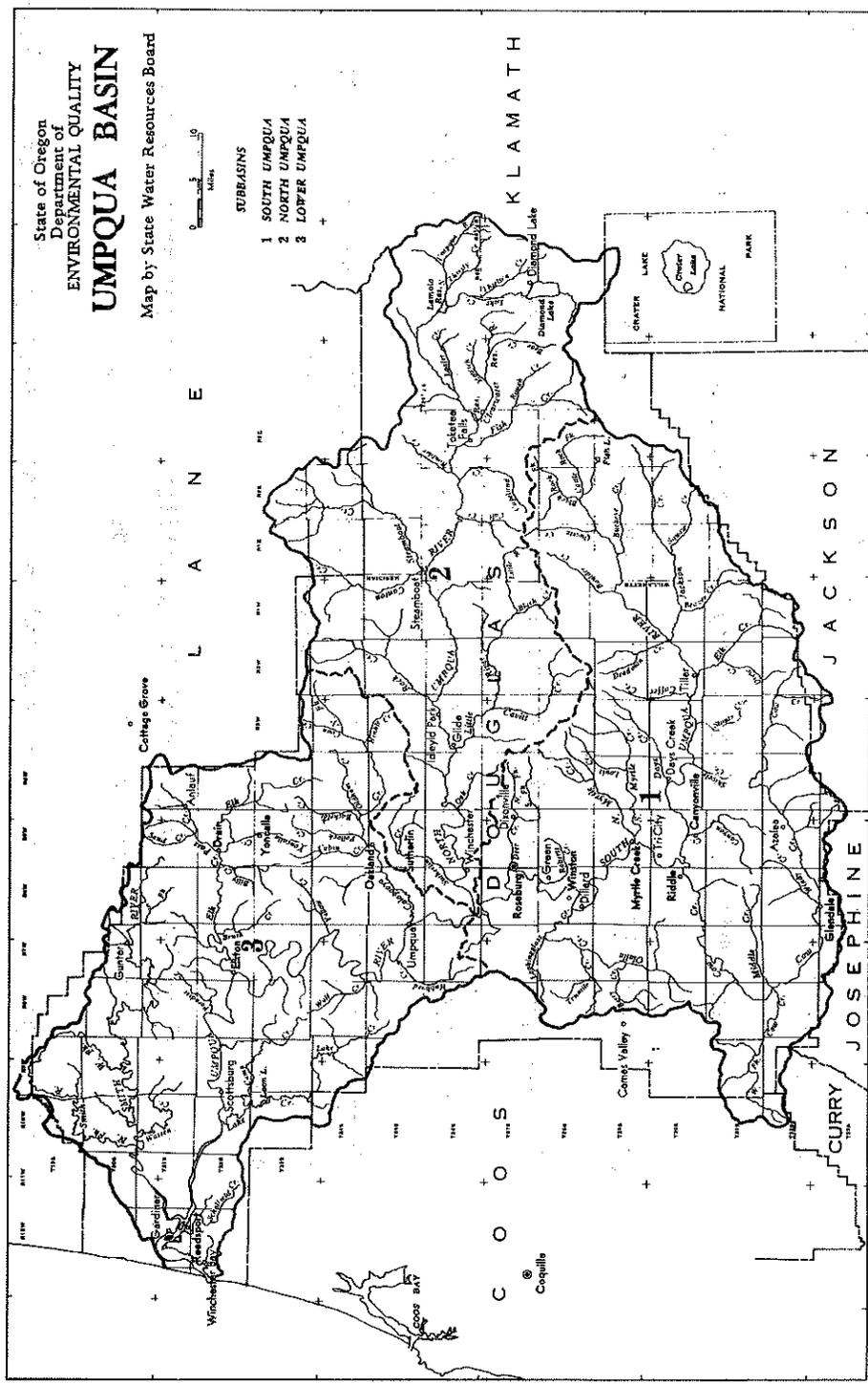
2. Industrial Wastes.

- a. ~~All industrial waste shall receive,~~ After maximum practicable inplant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [before being discharged].

- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements and the following:
- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to appropriate cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.
- E: E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

VII Umpqua Basin

[A-Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



[B]. Beneficial Water Uses to be Protected

Water quality in the Umpqua River Basin shall be managed to protect the recognized beneficial uses as follows:

	Umpqua R. Estuary to head of tide- water & adjacent marine waters	Umpqua R. Main stem from head of tidewater to confluence of N. & S. Umpqua Rivers	N. Umpqua R. Main Stem	S. Umpqua R. Main Stem	All other tribu- taries to Umpqua, North & South Rivers
<u>Beneficial Uses</u>					
Public Domestic Water Supply		X	X	X	X
Private Domestic Water Supply		X	X	X	X
Industrial Water Supply	X	X	X	X	X
Irrigation		X	X	X	X
Livestock Watering		X	X	X	X
Anadromous Fish Passage	X	X	X	X	X
Salmonid Fish Rearing	X	X	X	X	X
Salmonid Fish Spawning		X	X	X	X
Resident Fish & Aquatic Life	X	X	X	X	X
Wildlife & Hunting	X	X	X	X	X
Fishing	X	X	X	X	X
Boating	X	X	X	X	X
Water Contact Recreation	X	X	X	X	X
Aesthetic Quality	X	X	X	X	X
Hydro Power			X	X	X
<u>Commercial Navigation & Transportation</u>	X				

[C]. Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practical treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.

2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standard in the waters of the Umpqua River Basin:

a. Dissolved Oxygen (DO):

- 1) Fresh Waters: DO concentrations shall not be less than 90 percent of saturation the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.
- 2) Marine and Estuarine Waters (Outside of zones of upwelled marine waters naturally deficient in DO): DO concentrations shall not be less than 6 mg/l for estuarine waters, or less than saturation concentrations for marine waters.

b. Temperature:

1) Fresh Waters: No measurable increases shall be allowed when stream temperature are 58° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 57.5° F. or less or more than 2° F increase due to all sources combined when stream temperatures are 56° F. or less except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

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

c. Turbidity (Jackson Turbidity Units, JTU):

[No measurable increases in natural stream turbidities shall be allowed when natural turbidities are less than 30 JTU, and] No more than a 10 percent cumulative increase natural stream turbidities shall be allowed [when stream turbidities are more than 30 JTU,] except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities in excess of this standard are unavoidable.

In the event that the Corps of Engineers' proposed Days Creek Project is constructed, the natural stream turbidity for the South Umpqua River in the reach downstream from the dam shall be deemed the turbidity level in reservoir water releases for low stream flow augmentation, not to exceed 20 JTU. All reservoir water releases shall be managed to the best combination of temperature and turbidity regimes for salmonid fish production as determined by the Oregon Department of Fish and Wildlife.

d. pH (Hydrogen Ion Concentration):

- 1) Fresh waters and estuarine waters: pH values shall not fall outside the range of 6.5 to 8.5.
 - 2) Marine waters: pH values shall not fall outside the range of 7.0 to 8.5.
- e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):

- 1) [Marine and] Estuarine Waters other than shellfish growing areas: Average concentrations of coliform bacteria shall not exceed 240 per 100 ml or exceed this value in more than 20% of samples.
- 2) Marine and Shellfish growing waters: The median concentration of coliform bacteria shall not exceed 70 per 100 ml.

3 [2] Mainstem Umpqua River from tidewater to South Umpqua River confluence, South Umpqua

River from mouth to near Canyonville (River Mile 53), and Cow Creek from mouth to Glendale (River Mile 42): Average concentrations of coliform organisms shall not exceed 1000 per 100 milliliters, except during periods of high natural surface runoff.

- 4 [3] North Umpqua River and all unspecified tributaries: Average concentrations of coliform organisms shall not exceed 240 per 100 milliliters, except during periods of high natural surface runoff.
- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.

- j. *The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.*
- k. *Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.*
- l. *Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.*
- m. *Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.*
- n. *The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.*
- o. *Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.*

Arsenic (As)	mg/l
	0.01
Barium (Ba)	1.0

Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Total dissolved solids	500.0
Zinc (Zn)	0.01

3. Where the natural quality parameters of waters of the Umpqua River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. *Mixing Zones:*

a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.

b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.

c. In establishing a mixing zone in a waste discharge permit the Department:

- 1) May define the limits of the mixing zone in terms of distance from the point of waste water discharge or the area or volume of the receiving water or any combination thereof,
- 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
- 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.

5. *Testing Methods:* The analytical testing methods for determining compliance with the various quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method which case testing shall be in accordance with the superseding method; provided however testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F.3] IV.C., prior to discharge of any wastes from any new or modified facility to any waters of the Umpqua River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to S 468.740 and recognize that the actual performance level may at times be less than the design criteria requirements for operation and discharge standards shall be established in permits pursuant to ORS 87.740.)

1. Sewage Wastes:

a. During periods of low stream flows (approximately May 1 to October 31):

- 1) Main Stem Umpqua River, South Umpqua River and all tributaries to the Main Stem and South Umpqua Rivers: [High quality secondary] Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l of BOD and 10 mg/l of SS or equivalent control [shall be provided].
- 2) North Umpqua River from mouth to Idleld Park (RM 0 to 35): [High quality secondary] Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l

of BOD and 10 mg/l of SS or equivalent control [~~shall be provided~~].

- 3) North Umpqua River above Idlelyd Park (RM 35) and all tributaries to North Umpqua River: Treatment resulting in monthly average effluent concentrations not to exceed 5 mg/l of BOD and 5 mg/l of SS or equivalent control [~~shall be provided~~].
- b. During the period of high stream flows (approximately November 2 to April 30): A minimum of Secondary Treatment or equivalent control and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities at maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

- a. ~~All industrial waste shall receive~~ [All industrial waste shall receive] After maximum practicable implant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [before being discharged].
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:
- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.

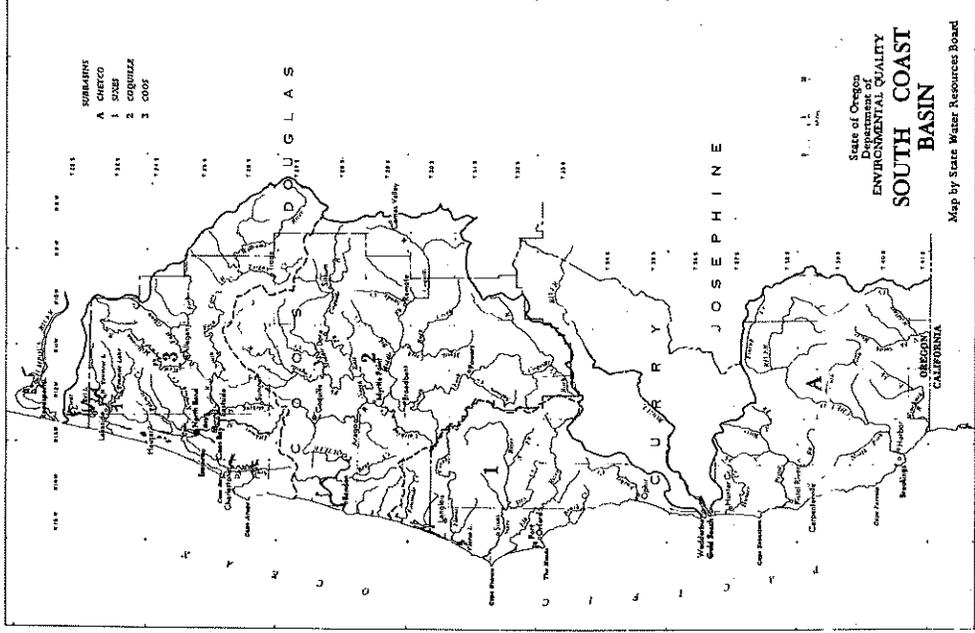
- d. *Industrial cooling waters containing significant heat loads shall be subjected to offstream cooling or heat recovery prior to discharge to public waters.*
- e. *Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.*
- f. *Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.*

OTE:

E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

VIII South Coast Basin

[A-Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



Beneficial Water Uses to be Protected

Water quality in the South Coast Basin shall be managed to protect the recognized beneficial uses as follows:

Beneficial Uses	Estuary and Adjacent Marine Waters	All Streams and Tributaries Thereof
Public Domestic Water Supply		X
Private Domestic Water Supply		X
Industrial Water Supply	X	X
Irrigation		X
Livestock Watering		X
Wild and Domestic Fish Passage	X	X
Wild and Domestic Fish Rearing	X	X
Wild and Domestic Fish & Aquatic Life	X	X
Wildlife & Hunting	X	X
Fishing	X	X
Boating	X	X
Water Contact Recreation	X	X
Aesthetic Quality	X	X
Hydro Power		X
Commercial Navigation & Transportation	X	

[6]. Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the South Coast Basin.
 - a. Dissolved Oxygen (DO):
 - 1) Fresh Waters: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.
 - 2) Marine and Estuarine Waters (Outside of zones of upwelled marine waters naturally deficient in DO): DO concentrations shall not be less than 6 mg/l for estuarine waters, or less than saturation concentrations for marine waters.

b. Temperature:

- 1) Fresh Waters: No measurable increases shall be allowed when stream temperatures are 64° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 63.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 62° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
 - 2) Marine and Estuarine Waters: No significant increase above natural background temperatures shall be allowed, and water temperatures shall not be altered to a degree which creates or can reasonably be expected to create an adverse effect on fish or other aquatic life.
- c. Turbidity (Jackson Turbidity Units, JTU):
- No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.
- d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the range of:
- 1) Estuarine and Fresh Waters: 6.5 - 8.5
 - 2) Marine [and Estuarine] Waters: 7.0 - 8.5

e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):

- 1) Marine Waters and Estuarine Shellfish Growing Waters: The median concentration shall not exceed 70 per 100 ml.
- 2) Estuarine Water other than Shellfish Growing Waters: Average concentrations shall not exceed 240 per 100 ml or exceed this value in more than 20% of the samples.

[3] Freshwaters: Average concentrations shall not exceed 240 per 100-ml.]

- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottom fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.

- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

1) Freshwaters:

Arsenic (As)	mg/l
Barium (Ba)	0.01
	1.0

Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Total dissolved solids	100.0
Zinc (Zn)	0.01

3. Where the natural quality parameters of waters of the South Coast Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.
4. Mixing Zones:
 - a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
 - b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.

c. In establishing a mixing zone in a waste discharge permit the Department:

- 1) May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,
- 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
- 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

[D]. Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of wastes from any new or modified facility to any waters of the South Coast Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability generally used in establishing design criteria. A facility once completed and placed in operation operate at or near the design limit most of the time but may operate below the design criteria limit times due to variables which are unpredictable or uncontrollable. This is particularly true for biotreatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.]

1. Sewage Wastes:

- a. During periods of low stream flows (approximately May 1 to October 31): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control [shall be provided].
- b. During the period of high stream flows (approximately November 1 to April 30) and for direct ocean discharges: A minimum of [eventual] Secondary Treatment or equivalent [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receive stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by EQC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

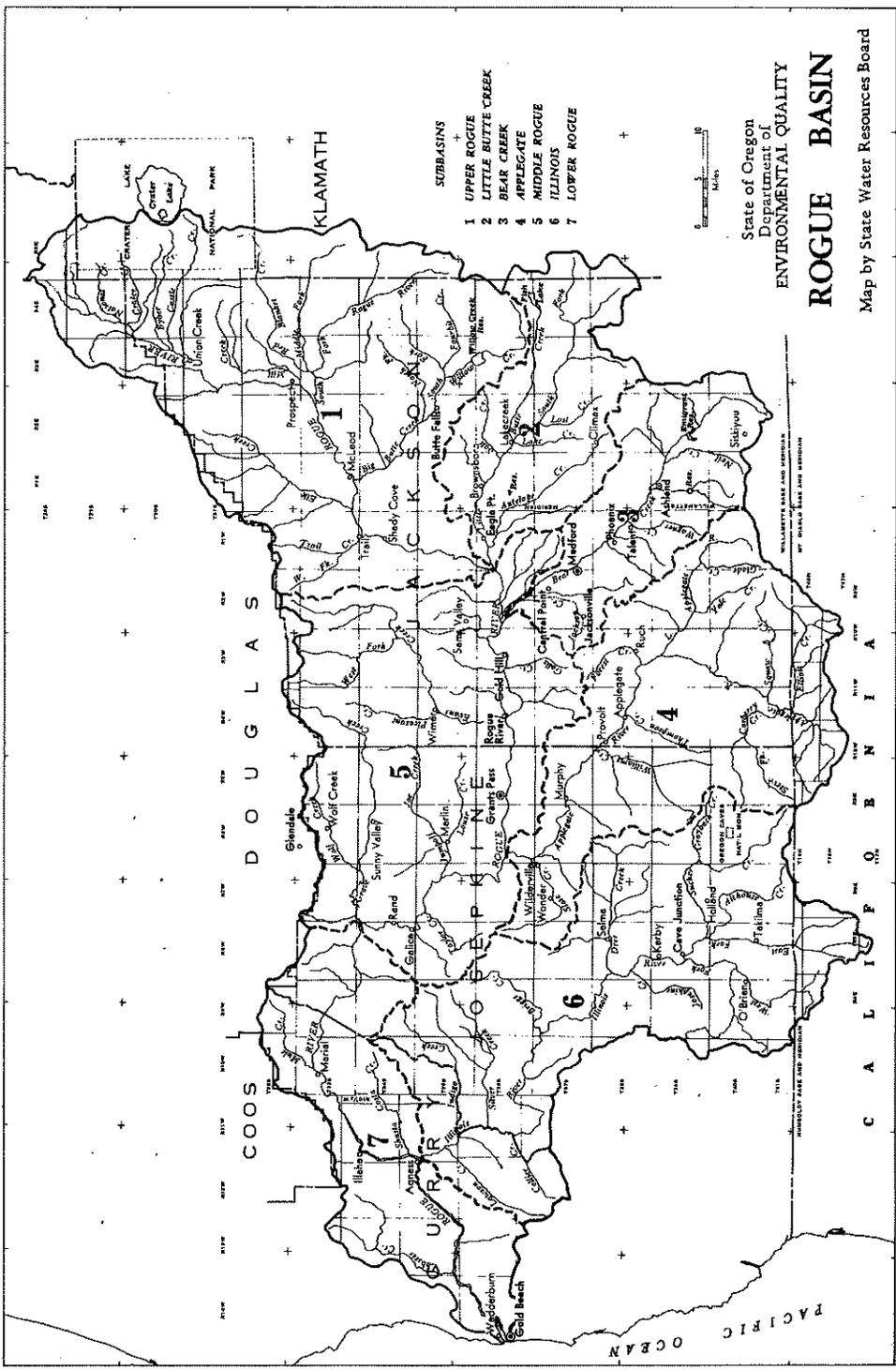
- a. ~~[All industrial waste shall receive,]~~ After maximum practicable inplant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [before being discharged

- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements and the following:
- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to appropriate cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

E: E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

IX Rogue Basin

[A--Preface--v--v--v--v--v--v--v] (Note: Preface consolidated for all basins into Sections I and II.)



[B]. Beneficial Water Uses to be Protected

Water quality in the Rogue River Basin shall be managed to protect the recognized beneficial uses as follows:

	Rogue River Estuary & Adjacent Marine Waters	Rogue River Main Stem from Estuary to Lost Creek Dam	Rogue River Main Stem above Lost Creek Dam	Bear Creek Main Stem	All other Tributaries to Rogue River & Bear Creek
<u>Beneficial Uses</u>					
Public Domestic Water Supply		X	X		X
Private Domestic Water Supply		X	X		X
Industrial Water Supply	X	X	X	X	X
Irrigation		X	X	X	X
Livestock Watering		X	X	X	X
Anadromous Fish Passage	X	X	X	X	X
Salmonid Fish Rearing	X	X	X	X	X
Salmonid Fish Spawning		X	X	X	X
Resident Fish & Aquatic Life	X	X	X	X	X
Wildlife & Hunting	X	X	X	X	X
Fishing	X	X	X	X	X
Boating	X	X	X	X	X
Water Contact Recreation	X	X	X	X	X
Aesthetic Quality	X	X	X	X	X
Hydro Power			X		X
<u>Commercial Navigation & Transportation</u>	X	X			

B [c]. Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforced pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided as to maintain dissolved oxygen and overall water quality at the highest possible levels. water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Rogue River Basin:
 - a. Dissolved Oxygen (DO):
 - 1) Fresh Waters: DO concentrations shall not be less than 90 percent of saturation the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.
 - 2) Marine and Estuarine Waters (Outside of zones of upwelled marine waters naturally deficient in DO): DO concentrations shall not be less than 6 mg/l for estuarine waters, or less than saturation concentrations for marine waters.

b. Temperature:

- 1) Fresh Waters: No measurable increases shall be allowed when stream temperatures are 58° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 57.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 56° F. or less except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
 - 2) Marine and Estuarine Waters: No significant increase above natural background temperatures shall be allowed, and water temperatures shall not be altered to a degree which creates or can reasonably be expected to create an adverse effect on fish or other aquatic life.
- c. Turbidity (Jackson Turbidity Units, JTU):
- [No measurable increases in natural stream turbidities shall be allowed when natural turbidities are less than 30 JTU, and] No more than a 10 percent cumulative increase natural stream turbidities shall be allowed [when stream turbidities are more than 30 except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.]

d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the following ranges:
[of 6.5 to 8.5]

1) Marine Waters: 7.0 - 8.5

2) Estuarine and Fresh Waters: 6.5 - 8.5

e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):

1) [~~Marine and~~] Estuarine Waters: Average concentrations of coliform bacteria shall not exceed 240 per 100 ml or exceed this value in more than 20% of samples.

2) Marine Waters: The median concentration of coliform bacteria shall not exceed 70 per 100 ml.

3 [2] Mainstem Rogue River from the point of salt water intrusion, approximately R.M. 4, upstream to Dodge Park, R.M. 138.4, and Bear Creek: Average concentrations of coliform organisms shall not exceed 1000 per 100 milliliters, except during periods of high natural surface runoff.

4 [3] Rogue River above Dodge Park and all unspecified tributaries: Average concentration of coliform organisms shall not exceed 240 per 100 milliliters, except during periods of high natural surface runoff.

- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottom fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.

- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

Arsenic (As)	mg/l
Barium (Ba)	0.01
Boron (Bo)	1.0
Cadmium (Cd)	0.5
Chromium (Cr)	0.003
Copper (Cu)	0.02
Cyanide (Cn)	0.005
Fluoride (F)	0.005
Iron (Fe)	1.0
Lead (Pb)	0.1
Manganese (Mn)	0.05
	0.05

Phenols (totals)	0.001
Total dissolved solids	500.0
Zinc (Zn)	0.01

3. Where the natural quality parameters of waters of the Rogue Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be standard.

4. *Mixing Zones:*

- a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
- b. The sole method of establishing such mixing zone shall be by the Department definition same in a waste discharge permit.
- c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and

3) Shall limit the mixing zone to that which in all probability, will

- a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
- b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

]. Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of any wastes from any new or modified facility to any waters of the Rogue River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation shall operate at or near the design limit most of the time but may operate below the design criteria limit at

times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.

1. Sewage Wastes:

- a. During periods of low stream flows (approximately May 1 to October 31): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l of BOD and 10 mg/l of SS or equivalent control [shall be provided].
- b. During the period of high stream flows (approximately November 1 to April 30): A minimum of [seventy-five] Secondary Treatment or equivalent [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.

- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

- a. [All industrial waste shall receive] After maximum practicable inplant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [before being discharged].
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:
- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.

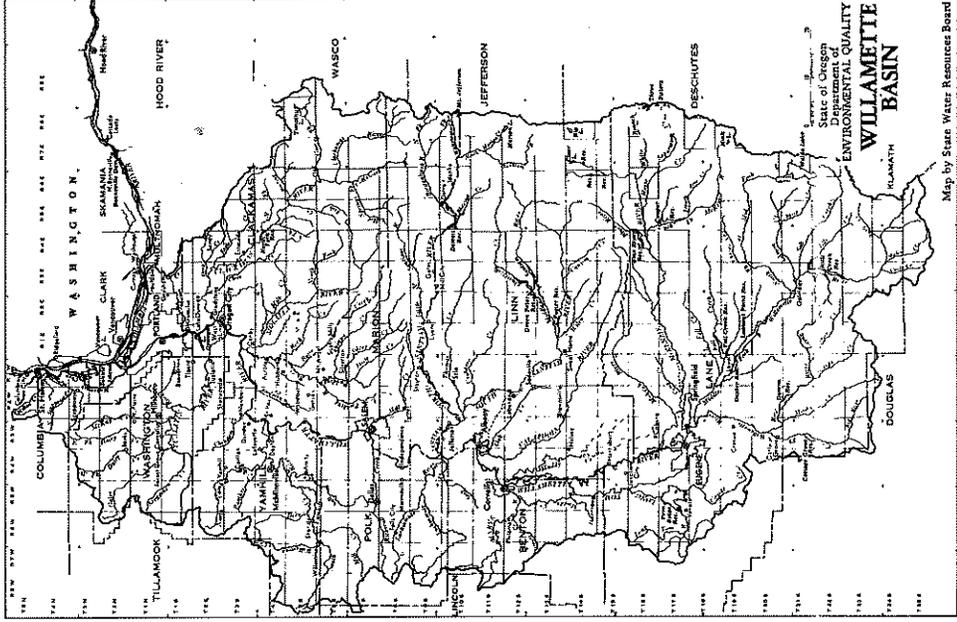
- c. *Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.*
- d. *Industrial cooling waters containing significant heat loads shall be subjected to offset cooling or heat recovery prior to discharge to public waters.*
- e. *Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.*
- f. *Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.*

NOTE:

E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

X Willamette Basin

[A. Preface] (Note: Preface consolidated for all basins into Sections I and II.)



[B]. Beneficial Water Uses to be Protected

Water quality in the Willamette River Basin shall be managed to protect the recognized beneficial uses as follows:

Beneficial Uses	Willamette River Tributaries						Main Stem Willamette River				
	Clackamas River [t/]	Molalla River [t/]	Santiam River	Mckenzie River	Tualatin River	All Other Streams And Tributaries	Mouth to Willamette Falls, including Multnomah Channel	Willamette Falls to Newberg	Newberg to Salem	Salem to Coast Fork	Main Stem Columbia River RM 86 to 120
Public Domestic Water Supply [2/11/]	X	X	X	X	X	X	X	X	X	X	X
Private Domestic Water Supply [2/11/]	X	X	X	X	X	X	X	X	X	X	X
Industrial Water Supply	X	X	X	X	X	X	X	X	X	X	X
Irrigation	X	X	X	X	X	X	X	X	X	X	X
Livestock Watering	X	X	X	X	X	X	X	X	X	X	X
Anadromous Fish Passage	X	X	X	X	X	X	X	X	X	X	X
Salmonid Fish Rearing	X	X	X	X	X	X	X	X	X	X	X
Salmonid Fish Spawning	X	X	X	X	X	X	X	X	X	X	X
Resident Fish & Aquatic Life	X	X	X	X	X	X	X	X	X	X	X
Wildlife & Hunting	X	X	X	X	X	X	X	X	X	X	X
Fishing	X	X	X	X	X	X	X	X	X	X	X
Boating	X	X	X	X	X	X	X	X	X	X	X
Water Contact Recreation	X	X	X	X	X	X	X	X	X	X	X
Aesthetic Quality	X	X	X	X	X	X	X	X	X	X	X
Hydro Power	X	X	X	X	X	X	X	X	X	X	X
Commercial Navigation & Transportation	X	X	X	X	X	X	X	X	X	X	X

~~[1]~~ Adopted by EQC and filed with Secretary of State in 1969, but inadvertently not printed in existing Water Quality Standards.

[2] With adequate pre-treatment and natural quality that meets drinking water standards.

[3] Not to conflict with commercial activities in Portland Harbor.

]. Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Willamette River Basin:
 - a. Dissolved Oxygen (DO):
 - 1) Multnomah Channel and main stem Willamette River from mouth to the Willamette Falls at Oregon City, river mile 26.6: The DO concentrations shall not be less than 5 mg/l.
 - 2) Main stem Willamette River from the Willamette Falls to Newberg, river mile 50: The DO concentrations shall not be less than 6 mg/l.
 - 3) Main stem Willamette River from Newberg to Salem, river mile 85: The DO concentrations shall not be less than 7 mg/l.

- 4) Main stem Willamette River from Salem to confluence of Coast and Middle Forks, river mile 187: The DO concentrations shall not be less than 90% of saturation.
 - 5) All Other Willamette Basin Streams:
 - a) Salmonid Fish Producing Waters: The DO concentration shall not be less than 90% of saturation at seasonal low or less than 95% of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.
 - b) Non-Salmonid Fish Producing Waters: The DO concentration shall not be less than 6 mg/l.
 - 6) Columbia River (RM 86 to 120): The DO concentration shall not be less than 90% of saturation.
- b. Temperature:
- 1) Multnomah Channel and the Main Stem Willamette River from Mouth to Newberg, River Mile 50: No measurable increases shall be allowed when stream temperatures are 70° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 69.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 68° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

- 2) Willamette River from Newberg to confluence of Coast and Middle Forks, River Mile 187: No measurable increases shall be allowed when stream temperatures are 64° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 63.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 62° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
- 3) All Other Willamette Basin Streams:
- a) Salmonid Fish Producing Waters: No measurable increases shall be allowed when stream temperatures are 58° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 57.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 56° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
 - b) Non Salmonid Fish Producing Waters: No measurable increases shall be allowed when stream temperatures are 64° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 63.5° F. or less or more than 2° F. increase due to all

sources combined when stream temperatures are 62° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

4) Columbia River: No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

c. Turbidity (Jackson Turbidity Units, JTU):

No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the following ranges [of 6.5 to 8.5]:

1) Columbia River: 7.0 to 8.5

2) All other basin waters: 6.5 to 8.5

- e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent M using a representative number of samples):
- 1) Main Stem Willamette River (River Miles 0 to 187) and Multnomah Channel: Average concentrations shall not exceed 1,000 per 100 ml, with 20% of the samples not to exceed 2,400 per 100 ml.
 - 2) All Other Willamette Basin Streams: Average concentrations shall not exceed 240 per 100 ml, except during periods of high runoff.
 - 3) Columbia River:
 - a) Upstream from Highway 5 Bridge between Portland and Vancouver (River Mile 106.5): Average concentrations shall not exceed 240 per 100 ml or exceed this value in more than 20% of the samples.
 - b) Downstream from Highway 5 Bridge between Portland and Vancouver (River Miles 0 to 106.5): Average concentrations shall not exceed 1,000 per 100 ml, with 20% of the samples not to exceed 2,400 per 100 ml.
 - f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
 - g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.

- h. The development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation except when stream flow exceeds the 10-year, 7-day average flood.

- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

	<u>mg/l</u>
Arsenic (As)	0.01
Barium (Ba)	1.0
Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Zinc (Zn)	0.01
Total Dissolved Solids	
Columbia River	200.
Willamette River & Tributaries	100.

3. Where the natural quality parameters of waters of the Willamette River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. Mixing Zones:

- a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
- b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.
- c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
 - 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

[D]. Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of wastes from any new or modified facility to any waters of the Willamette River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability generally used in establishing design criteria. A facility once completed and placed in operation operate at or near the design limit most of the time but may operate below the design criteria limit times due to variables which are unpredictable or uncontrollable. This is particularly true for biotreatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468-740-])

1. Sewage Wastes:

a. Willamette River and Tributaries except Tualatin River Subbasin:

- 1) During periods of low stream flows (approximately May 1 to October 31): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l of BOD and 10 mg/l of SS or equivalent control [shall be provided].
- 2) During the period of high stream flows (approximately November 1 to April 30): A minimum of [conventional] Secondary Treatment or equivalent [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practical efficiency and effectiveness so as to minimize waste discharges to public waters.

b. Main Stem Tualatin River from Mouth to Gaston (River Mile 0 to 65):

- 1) During periods of low stream flows (approximately May 1 to October 31): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l of BOD and 10 mg/l of SS or equivalent control [shall be provided].
- 2) During the period of high stream flows (approximately November 1 to April 30): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control [shall be provided].

- c. Main Stem Tualatin River above Gaston (River Mile 65) and all Tributaries to the Tualatin River: [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 5 mg/l of BOD and 5 mg/l of SS or equivalent control [shall be provided].
- d. Tualatin River Subbasin: The dissolved oxygen level in the discharged effluents shall not be less than 6 mg/l.
- e. Main Stem Columbia River:
- 1) During Summer (May 1 to October 31): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control [shall be provided].
 - 2) During Winter (November 1 to April 30): A minimum of [conventional] Secondary Treatment or equivalent [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- f. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise specifically approved by the Environmental Quality Commission.
- g. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with

sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.

- h. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- i. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

- a. [~~At~~ ~~industrial waste shall receive,~~] After maximum practicable inplant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [~~before being discharged~~].
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:

- 1) The uses which are or may likely be made of the receiving stream.
- 2) The size and nature of flow of the receiving stream.

- 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to offsite cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

Special Policies and Guidelines

In order to preserve the existing high quality water for municipal water supplies and recreation, it is the policy of the EQC to prohibit any further waste discharges to the waters of:

[a] The Clackamas River Subbasin

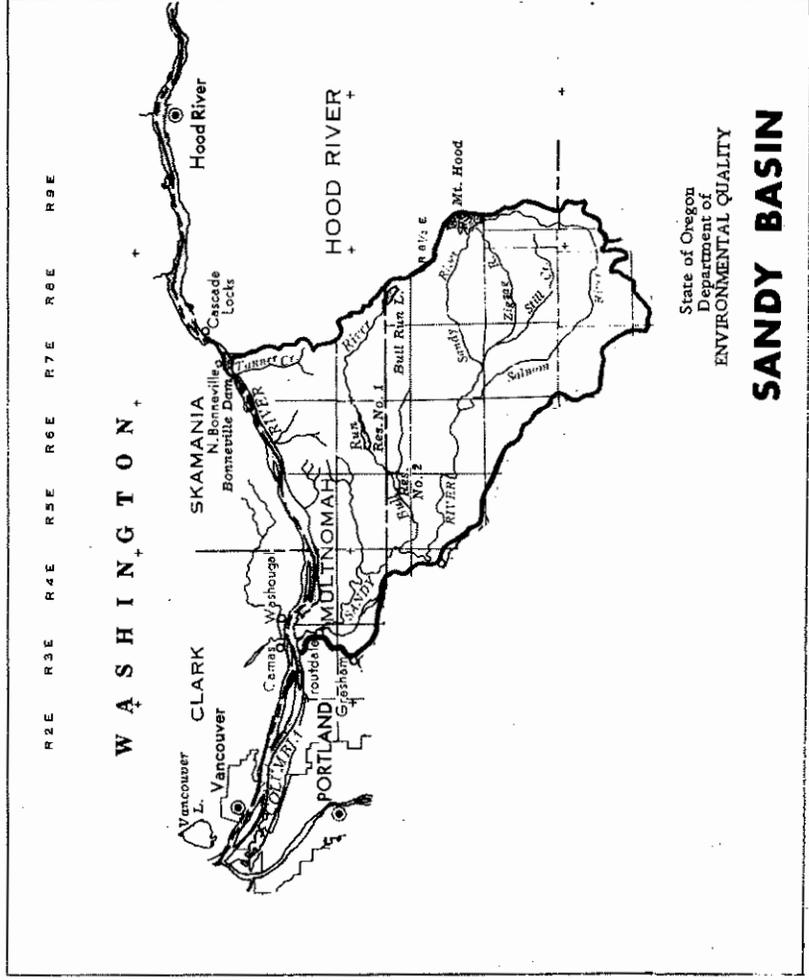
2. [b)] The McKenzie River Subbasin above Hayden Bridge (River Mile 15)

3. The North Santiam River Subbasin

TE: E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XI Sandy Basin

[A--Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



Beneficial Water Uses to be Protected

Water quality in the Sandy River Basin shall be managed to protect the recognized beneficial uses follows:

Beneficial Uses	Streams Forming Watersheds Near Columbia River Highway	Sandy River	Bull Run River and All Tributaries	All other Tributaries to Sandy River	Columbia River RM 120 to 147
Public Domestic Water Supply		X	X	X	X
Private Domestic Water Supply		X		X	X
Industrial Water Supply		X		X	X
Irrigation		X		X	X
Livestock Watering		X		X	X
Wildlife Fish Passage		X	X	X	X
Wildlife Fish Rearing	X	X	X	X	X
Wildlife Fish Spawning	X	X	X	X	
Wildlife Fish & Aquatic Life	X	X	X	X	X
Wildlife & Hunting	X	X		X	X
Fishing	X	X		X	X
Boating		X		X	X
Water Contact Recreation	X	X		X	X
Aesthetic Quality	X	X	X	X	X
Hydro Power		X	X	X	X
Commercial Navigation and Transportation					X

Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.

2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Sandy River Basin:

a. Dissolved Oxygen (DO):

- 1) Main Stem Columbia River (RM 120 to 147): DO concentrations shall not be less than 90 percent of saturation.
- 2) All Other Basin Waters: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.

b. Temperature:

- 1) Main Stem Columbia River (RM 120 to 147): No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
- 2) All Other Basin Waters: No measurable increases shall be allowed when stream temperatures are 58° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 57.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 56° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
- c. Turbidity (Jackson Turbidity Units, JTU): No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. pH (Hydrogen Ion Concentration):

- 1) Main Stem Columbia River (RM 120 to 147): pH values shall not fall outside the range of 7.0 to 8.5.
 - 2) All Other Basin Waters: pH values shall not fall outside the range of 6.5 to [8.5] 8.5.
- e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples): Average concentrations of coliform organisms shall not exceed 240 per 100 milliliters, except during periods of high natural surface runoff.
- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, insufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.

- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.

o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B.] A.

Arsenic (As)	mg/l	0.01
Barium (Ba)		1.0
Boron (Bo)		0.5
Cadmium (Cd)		0.003
Chromium (Cr)		0.02
Copper (Cu)		0.005
Cyanide (Cn)		0.005
Fluoride (F)		1.0
Iron (Fe)		0.1
Lead (Pb)		0.05
Manganese (Mn)		0.05
Phenols (totals)		0.001
Zinc (Zn)		0.01
Total Dissolved Solids		
Main Stem Columbia River (RM 120 to 147)		200.
All Other Basin Waters		100.

i. Where the natural quality parameters of waters of the Sandy Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. Mixing Zones:

- a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
- b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.
- c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
 - 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

6]. Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of a waste from any new or modified facility to any waters of the Sandy River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum ~~requirements~~ criteria: (In designing treatment facilities, average conditions and a normal range of variability generally used in establishing design criteria. A facility once completed and placed in operation operate at or near the design limit most of the time but may operate below the design criteria limit times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.]

1. Sewage Wastes:

- a. Main Stem Columbia River (RM 120 to 147):

- 1) During periods of low stream flows (approximately July 1 to January 31): [High Quality Secondary]Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control. [shall be provided.]
 - 2) During the period of high stream flows (approximately February 1 to June 30): A minimum of[~~conventional~~]Secondary Treatment or equivalent [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- b. All Other Basin Waters:
- 1) During periods of low stream flows (approximately June 1 to October 31): [High Quality Secondary]Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l of BOD and 10 mg/l of SS or equivalent control. [shall be provided.]
 - 2) During the period of high stream flows (approximately November 1 to May 31): A minimum of[~~conventional~~]Secondary Treatment or equivalent[shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters... unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

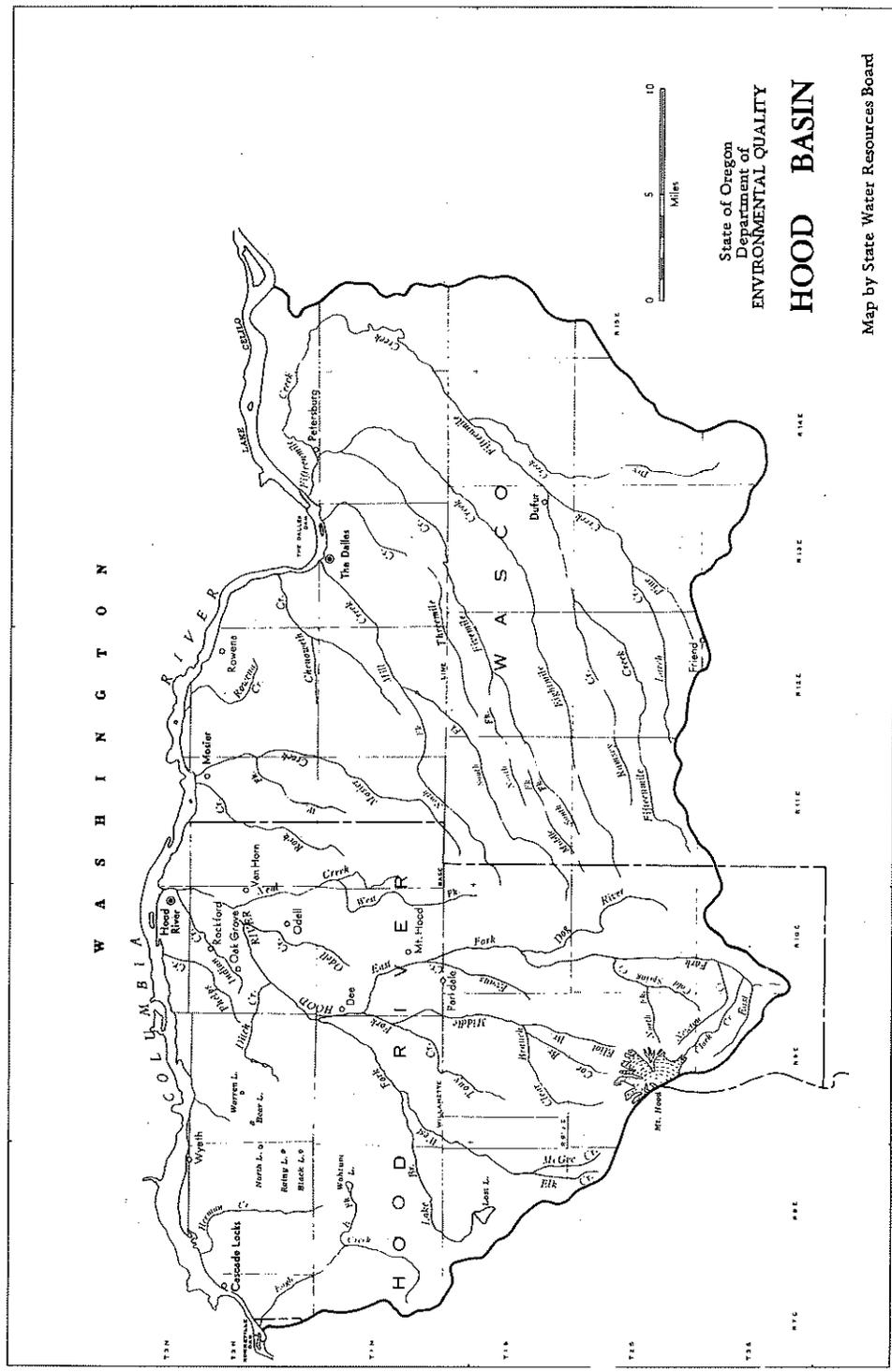
- a. ~~All industrial waste shall receive,~~ After maximum practicable inplant control, a minimum of ~~High Quality~~ Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances). ~~[before being discharged.]~~
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:

- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to off-stream cooling or heat recovery prior to discharge to public waters.
 - e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
 - f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

NOTE: E. Policies and Guidelines, and F. Implementation Program, which appeared in the origin basin plan are consolidated in Sections III and IV, respectively.

XII Hood Basin

[A--Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



[B]. Beneficial Water Uses to be Protected

Water quality in the Hood River Basin shall be managed to protect the recognized beneficial use as follows:

<u>Beneficial Uses</u>	<u>Columbia River RM 147 to 203</u>	<u>Other Hood River Basin Streams</u>
Public Domestic Water Supply	X	X
Private Domestic Water Supply	X	X
Industrial Water Supply	X	X
Irrigation	X	X
Livestock Watering	X	X
Anadromous Fish Passage	X	X
<u>Anadromous Fish (Shad & Sturgeon) Spawning & Rearing</u>	<u>X</u>	
Salmonid Fish Rearing	X	X
Salmonid Fish Spawning		X
Resident Fish & Aquatic Life	X	X
Wildlife & Hunting	X	X
Fishing	X	X
Boating	X	X
Water Contact Recreation	X	X
Aesthetic Quality	X	X
Hydro Power	X	X
<u>Commercial Navigation & Transportation</u>	X	

Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.900 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.

2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Hood River Basin:

a. Dissolved Oxygen (DO):

- 1) Columbia River (RM 147 to 203): DO concentrations shall not be less than 90 percent of saturation.
- 2) Other Hood River Basin Streams:

a) Salmonid Fish Producing Waters: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.

b) Non-salmonid Fish Producing Waters: The DO concentration shall not be less than 6 mg/l.

b. Temperature:

1) Columbia River (RM 147 to 203): No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

2) Other Hood River Basin Streams: No measurable increases shall be allowed when stream temperatures are 58° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 57.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 56° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

c. Turbidity (Jackson Turbidity Units, JTU):

No more than a 10 percent cumulative increase in natural stream turbidities shall be

allowed, except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. pH (Hydrogen Ion Concentration):

1) Main Stem Columbia River (RM 147-~~[203-5]~~203): pH values shall not fall outside the range of 7.0 to 8.5.

2) Other Hood River Basin Streams: pH values shall not fall outside the range of 6.5 to 8.5.

e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):

Average concentrations of coliform bacteria in the Columbia River (RM 147 to 203) shall not exceed 240 per 100 milliliters or exceed this value in more than 20% of the samples.

f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.

- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottoms fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's

in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.

- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

	<u>mg/l</u>
Arsenic (As)	0.01
Barium (Ba)	1.0
Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chloride (Cl)	30.
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05

Manganese (Mn)	0.05
Phenols (totals)	0.001
Total dissolved solids	200.0
Zinc (Zn)	0.01

3. Where the natural quality parameters of waters of the Hood River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. Mixing Zones:

- a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
- b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.
- c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,

- 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
- 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

[D] Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of wastes from any new or modified facility to any waters of the Hood River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements]

criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criterion limit at times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.]

1. Sewage Wastes:

a. During periods of low stream flows (approximately May 1 to October 31):

- 1) Columbia River Main Stem (RM 147 to 203): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of suspended solids or equivalent control [shall be provided].
- 2) Other Hood River Basin Streams: [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l of BOD and 10 mg/l of suspended solids or equivalent control [shall be provided].

b. During the period of high stream flows (approximately November 1 to April 30): A minimum of [conventional] Secondary Treatment or equivalent [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EOC.
 - d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
 - e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
 - f. More stringent waste treatment and control requirements may be imposed where special conditions may require.
2. Industrial Wastes.
- a. ~~All industrial waste shall receive,~~ After maximum practicable implant control, a minimum of ~~High Quality~~ Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) ~~before being discharged~~.
 - b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:

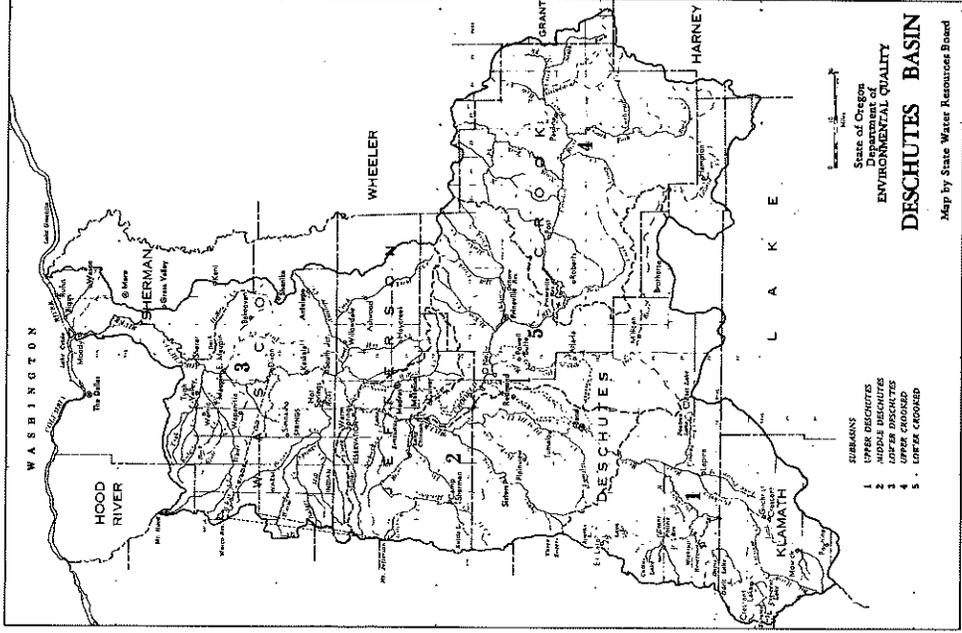
- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to offstream cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

NOTE:

E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XIII Deschutes Basin

[A-Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.

2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Deschutes River Basin:

a. Dissolved Oxygen (DO):

1) Columbia River (RM 203 to 218): DO concentrations shall not be less than 90 percent of saturation.

2) Other Deschutes River Basin Streams: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.

b. Temperature:

1) Columbia River (RM 203 to 218): No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

2) Other Deschutes River Basin Streams: No measurable increases shall be allowed when stream temperatures are 58° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 57.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 56° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

c. Turbidity (Jackson Turbidity Units, JTU): [No measurable increases in natural stream turbidities shall be allowed when natural turbidities are less than 30 JTU, and] No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed [when stream turbidities are more than 30 JTU,] except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

- d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the following ranges:
[~~ef 6.5 to 8.5.~~]
- 1) Columbia River (RM 203 to 218): 7.0 to 8.5
- 2) All Other Basin Streams: 6.5 to 8.5
- d. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):
- 1) Columbia River (RM 203 to 218): Average concentrations shall not exceed 240 per 100 milliliters with 20% of samples not to exceed this value.
- 2) All Other Basin Streams: Average concentrations of coliform organisms shall not exceed 240 per 100 milliliters, except during periods of high natural surface runoff.
- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.

- h. The development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.*
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.*
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.*
- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.*
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.*
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.*
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.*

- o. *Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.*

Arsenic (As)	mg/l
Barium (Ba)	0.01
Boron (Bo)	1.0
Cadmium (Cd)	0.5
Chromium (Cr)	0.003
Copper (Cu)	0.02
Cyanide (Cn)	0.005
Fluoride (F)	0.005
Iron (Fe)	1.0
Lead (Pb)	0.1
Manganese (Mn)	0.05
Phenols (totals)	0.05
Total dissolved solids	0.001
Zinc (Zn)	500.0
	0.01

3. *Where the natural quality parameters of waters of the Deschutes Basin are outside the numeric limits of the above assigned water quality standards, the natural water quality shall be the standard.*

4. *Mixing Zones:*

- a. *The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.*
- b. *The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.*
- c. *In establishing a mixing zone in a waste discharge permit the Department:*
 - 1) *May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,*
 - 2) *May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and*
 - 3) *Shall limit the mixing zone to that which in all probability, will*
 - a) *Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and*
 - b) *Not adversely affect any other beneficial use disproportionately.*

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

D]. Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F.3] IV.C., prior to discharge of any wastes from any new or modified facility to any waters of the Deschutes River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.]

1. Sewage Wastes:

- a. *Metolius River Subbasin and Deschutes River Basin above Bend Diversion Dam (River Mile 165):* [~~High quality secondary~~] Treatment resulting in monthly average effluent concentrations not to exceed 5 mg/l of BOD and 5 mg/l of SS or equivalent control [~~shall be provided~~].
- b. *Deschutes River from the Bend Diversion Dam (RM 165) downstream to the Pelton Reregulating Dam (RM 100) and for the Crooked River Subbasin:*
- 1) *During periods of low stream flows (approximately April 1 to October 31):* [~~High quality secondary~~] Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l of BOD and 10 mg/l of SS or equivalent control [~~shall be provided~~].
 - 2) *During the period of high stream flows (approximately November 1 to March 31):* A minimum of [~~secondary~~] secondary treatment or equivalent [~~shall be provided~~] unless otherwise specifically authorized by the Department, operation of all wastewater treatment and control facilities [~~shall be operated~~] at [~~a~~] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- c. *Deschutes from the Pelton Reregulating Dam (RM 100) downstream to the mouth:*
- 1) *During periods of low stream flows (approximately April 1 to October 31):* [~~High quality secondary~~] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control [~~shall be provided~~].

2) During the period of high stream flows (approximately November 1 to March 31): A minimum of [~~sewerage~~] secondary treatment or equivalent [~~shall be provided~~] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [~~shall be operated~~] at [~~a~~] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

d. Columbia River (RM 203 to 218):

1) From approximately May 1 to October 31: Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of suspended solids or equivalent control.

2) From approximately November 1 to April 30: A minimum of secondary treatment or equivalent control and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities at maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

e [~~a~~]. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.

f [~~e~~]. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.

g [f]. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.

h [g]. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

a. ~~All industrial waste shall receive,~~] After maximum practicable inplant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effect disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [before being discharged].

b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:

- 1) The uses which are or may likely be made of the receiving stream.
- 2) The size and nature of flow of the receiving stream.
- 3) The quantity and quality of wastes to be treated, and
- 4) The presence or absence of other sources of pollution on the same watershed.

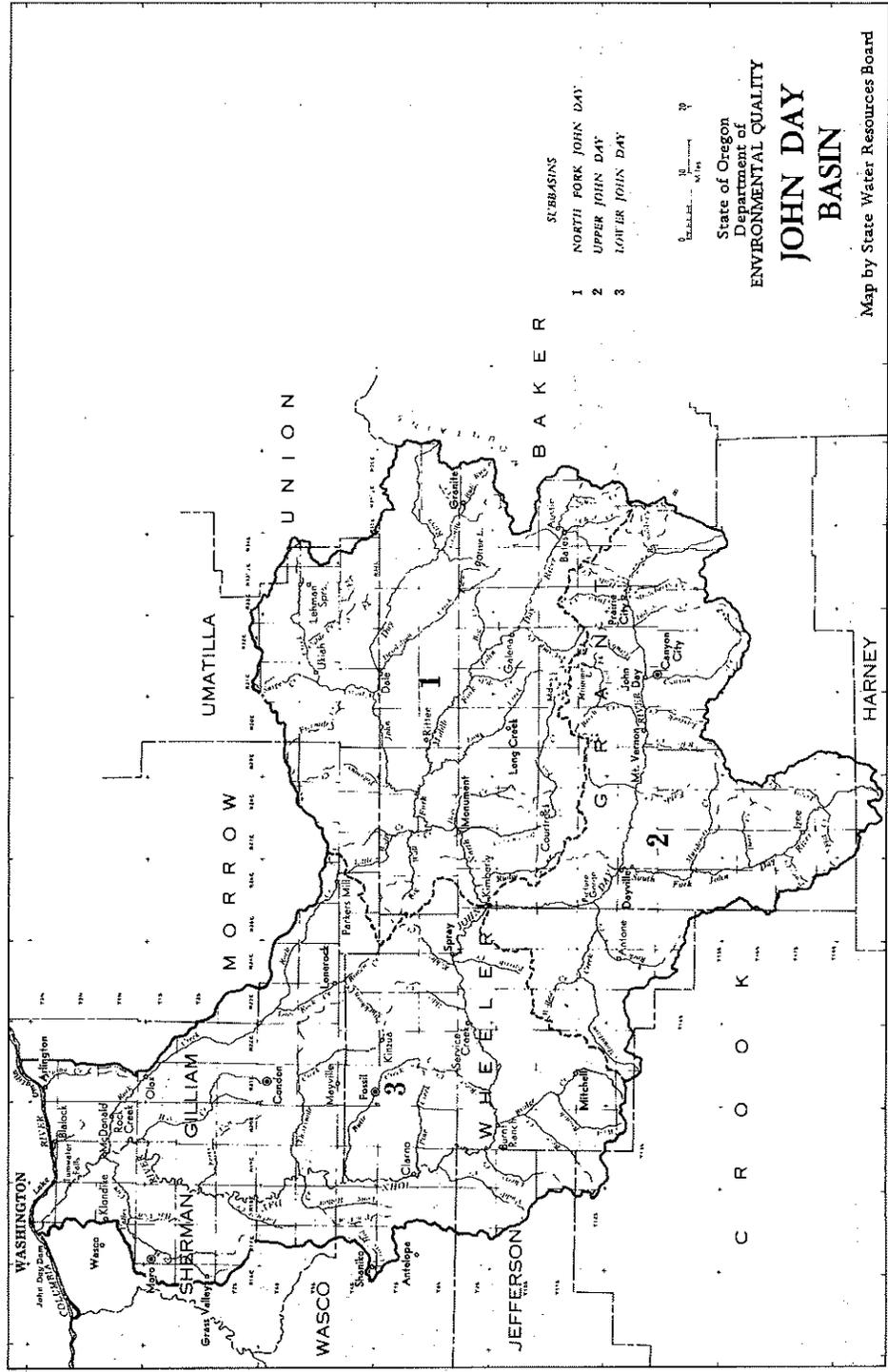
- c. *Where industrial, commercial or agricultural effluents contain significant quantities potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.*
- d. *Industrial cooling waters containing significant heat loads shall be subjected to off-peak cooling or heat recovery prior to discharge to public waters.*
- e. *Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.*
- f. *Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.*

NOTE:

E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XIV John Day Basin

[A. Preface] (Note: Preface consolidated for all basins into Sections I and II.)



[8] Beneficial Water Uses to be Protected

Water quality in the John Day River Basin shall be managed to protect the recognized beneficial uses as follows:

<u>Beneficial Uses</u>	<u>Columbia River RM 218 to 247</u>	<u>John Day River and All Tributaries</u>
Public Domestic Water Supply	X	X
Private Domestic Water Supply	X	X
Industrial Water Supply	X	X
Irrigation	X	X
Livestock Watering	X	X
Anadromous Fish Passage	X	X
Salmonid Fish Rearing	X	X
Salmonid Fish Spawning	X	X
Resident Fish & Aquatic Life	X	X
Wildlife & Hunting	X	X
Fishing	X	X
Boating	X	X
Water Contact Recreation	X	X
Aesthetic Quality	X	X
Hydro Power	X	
<u>Commercial Navigation & Transportation</u>	X	

[EC] Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the John Day River Basin:
 - a. Dissolved Oxygen (DO):
 - 1) Columbia River (RM 218 to 247): The DO concentration shall not be less than 90% of saturation.
 - 2) John Day River and Tributaries
 - [a. ~~Salmonid-Fish-Producing-Waters:~~] DO concentrations shall not be less than ~~90%~~ 75% of saturation at the seasonal low, or less than 95% of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.
 - [b. ~~Non-Salmonid-Fish-Producing-Waters:~~] The DO concentrations shall not be less than ~~6 mg/l.~~

b. Temperature:

[~~(1)~~ ~~Fresh Waters:~~] No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F increase due to all sources combined when stream temperatures are 66° F. or less except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of the standard are unavoidable.

c. Turbidity (Jackson Turbidity Units, JTU):

No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the following range [~~of 7.0 to 8.5~~]

1) Columbia River (RM 218 to 247): 7.0 to 8.5

2) All other Basin Streams: 6.5 to 8.5

- e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples): Columbia River (RM 218 to 247): Average concentrations [of coliform organisms] shall not exceed 240 per 100 millileters, [except during periods of high natural-surface runoff.] with 20% of samples not to exceed this value.
- f. Bacterial pollution or other conditions deleterious to waters used for domestic purpose livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottoms fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.

- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B:] A.

1) Potential Deleterious Substances:

	<u>mg/l</u>
Arsenic (As)	0.01
Barium (Ba)	1.0
Boron (Bo)	0.5
Cadmium (Cd)	0.003

Chromium (Cr)	mg/l
Copper (Cu)	0.02
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Zinc (Zn)	0.01
Total Dissolved Solids	
Columbia River	200.0
John Day River and Tributaries	500.0

3. Where the natural quality parameters of waters of the John Day Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.
4. Mixing Zones:
 - a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.

- b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.
 - c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
 - 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.
5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

[P] Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of wastes from any new or modified facility to any waters of the John Day River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468-740.]

1. Sewage Wastes:

- a. During periods of low stream flows (approximately May 1 to October 31): [~~High Quality Secondary~~] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control [~~shall be provided~~].
- b. During the period of high stream flows (approximately November 1 to April 30): A minimum of [~~conventional~~] Secondary Treatment or equivalent [~~shall be provided~~] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed (1) unless otherwise approved by the EOC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

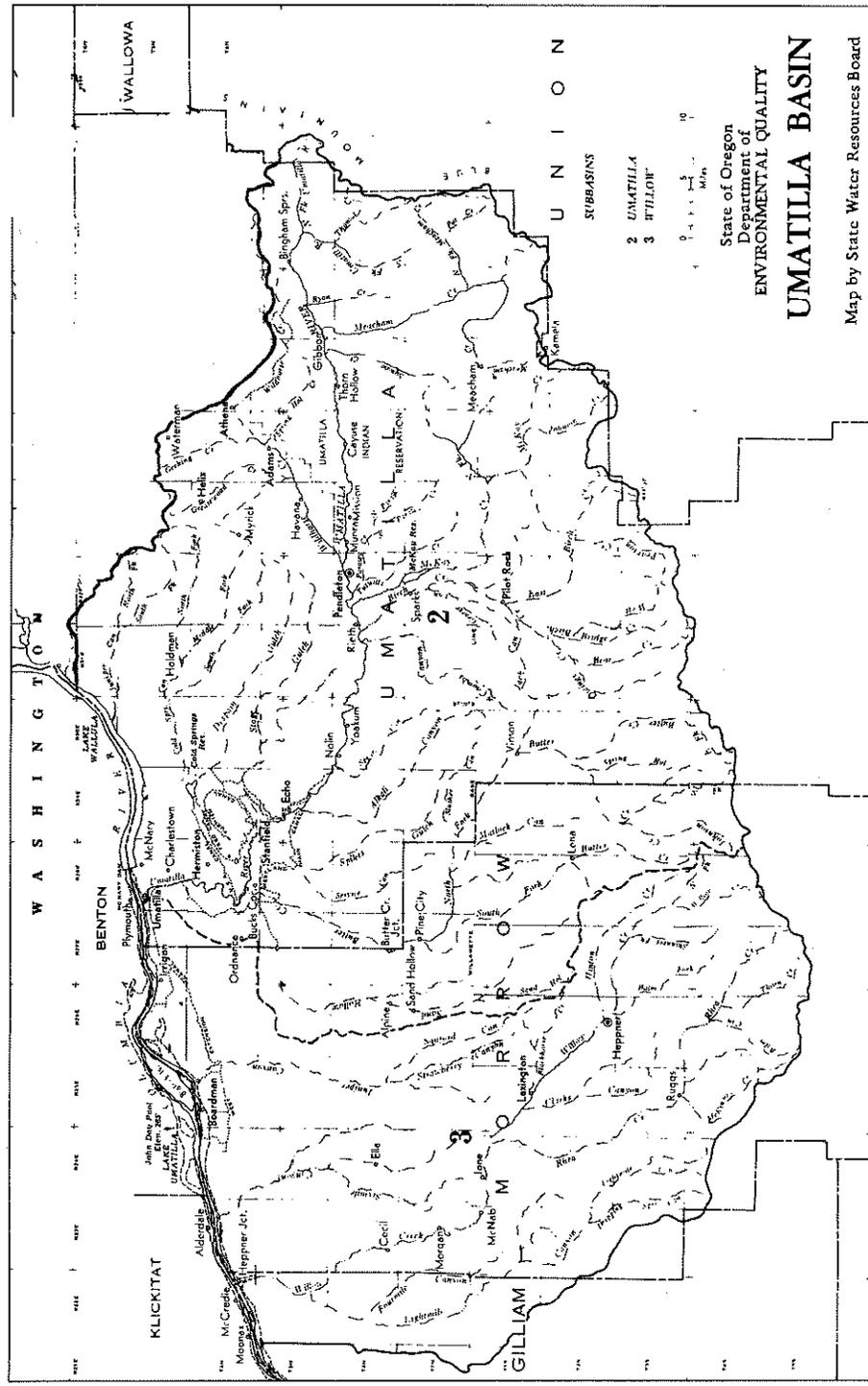
- a. ~~All industrial waste shall receive.~~ After maximum practicable inplant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection when bacterial organisms of public health significance are present, and control of toxic or other deleterious substances)[before being discharged].
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:

- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to off-gas cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

NOTE: E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XV Umatilla Basin

[A-Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



Beneficial Water Uses to be Protected

Water quality in the Umatilla River Basin shall be managed to protect the recognized beneficial uses follows:

	Umatilla Subbasin	Willow Creek Subbasin	Main Stem Columbia River River Miles 247 to 309
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Beneficial Uses

Public Domestic Water Supply I/

Private Domestic Water Supply I/

Industrial Water Supply

Irrigation

Livestock Watering

Wildlife Fish Passage

Wildlife Fish Rearing (trout)

Wildlife Fish Spawning (trout)

Wildlife Fish & Aquatic Life

Wildlife & Hunting

Fishing

Boating

Water Contact Recreation

Aesthetic Quality

Hydro Power

Commercial Navigation & Transportation

Public Domestic Water Supply I/	X	X	X
Private Domestic Water Supply I/	X	X	X
Industrial Water Supply	X	X	X
Irrigation	X	X	X
Livestock Watering	X	X	X
Wildlife Fish Passage	X	-	X
Wildlife Fish Rearing (trout)	X	X	X
Wildlife Fish Spawning (trout)	X	X	X
Wildlife Fish & Aquatic Life	X	X	X
Wildlife & Hunting	X	X	X
Fishing	X	X	X
Boating	X	X (at mouth)	X
Water Contact Recreation	X	X	X
Aesthetic Quality	X	X	X
Hydro Power	X	X	X
Commercial Navigation & Transportation	[X]	[X]	X

With adequate pretreatment and where natural quality meets drinking water standards.

Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Umatilla River Basin:
 - a. Dissolved Oxygen (DO):
 - 1) Main Stem Columbia River (RM 247 to 309): The DO concentration shall not be less than 90% of saturation.
 - 2) All Other Basin Waters:
 - [a] ~~Salmonid Fish Producing Waters~~: DO concentrations shall not be less than [90] 75 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.

[b] Non-Salmonid Fish Producing Waters: DO concentrations shall not be less than

b. Temperature:

No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

c. Turbidity (Jackson Turbidity Units, JTU):

No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the following ranges:
[ef: 7-9 to 8-5-]

1) Columbia River (RM 247 to 309): 7.0 to 8.5

2) All Other Basin Streams: 6.5 to 8.5

- e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):
 - [1] Main Stem Columbia River: Average concentrations shall not exceed 240 per 100 milliliters or exceed this value in more than 20% of the samples.
 - [2] All Other Basin Waters: Average concentrations shall not exceed 1000 per 100 milliliters with 20% of the samples not to exceed 2400 per 100 ml.]
- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes livestock watering, irrigation, or bathing, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.

- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily slick or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) for drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem

necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

[1] Potentially Deleterious Substances]

[2] Total Dissolved Solids:]

[a] Main Stem Columbia River: 200 mg/l]

[b] All Other Basin Waters: to be controlled according to GAR 340, Section 41-010
{keep to the lowest possible levels}]

Arsenic (As)	mg/l
Barium (Ba)	0.01
Boron (Bo)	1.0
Cadmium (Cd)	0.5
Chromium (Cr)	0.003
Copper (Cu)	0.02
Cyanide (Cn)	0.005
Fluoride (F)	0.005
Iron (Fe)	1.0
Lead (Pb)	0.1
Manganese (Mn)	0.05
	0.05

Phenols (totals)	0.001
Zinc (Zn)	0.01
<u>Total dissolved solids --</u>	<u>200.0</u>
<u>Columbia River</u>	

3. Where the natural quality parameters of waters of the Umatilla Basin are outside the numeric limits of the above assigned water quality standards, the natural water quality shall be the standard.
4. Mixing Zones:
 - a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
 - b. The sole method of establishing such mixing zone shall be by the Department defining said zone in a waste discharge permit.
 - c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,

- 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
- 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.
5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of any wastes from any new or modified facility to any waters of the Umatilla River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability

are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740-.]

1. Sewage Wastes:

- a. During periods of low stream flows (approximately May 1 to October 31): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control [shall be provided].
- b. During the period of high stream flows (approximately November 1 to April 30): A minimum of [conventional] Secondary Treatment or equivalent [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes.

of contact time unless otherwise specifically authorized by permit.

e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.

f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

a. ~~[All industrial waste shall receive.]~~ After maximum practicable inplant control, a minimum of ~~[High Quality]~~ Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) ~~[before being discharged]~~.

b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:

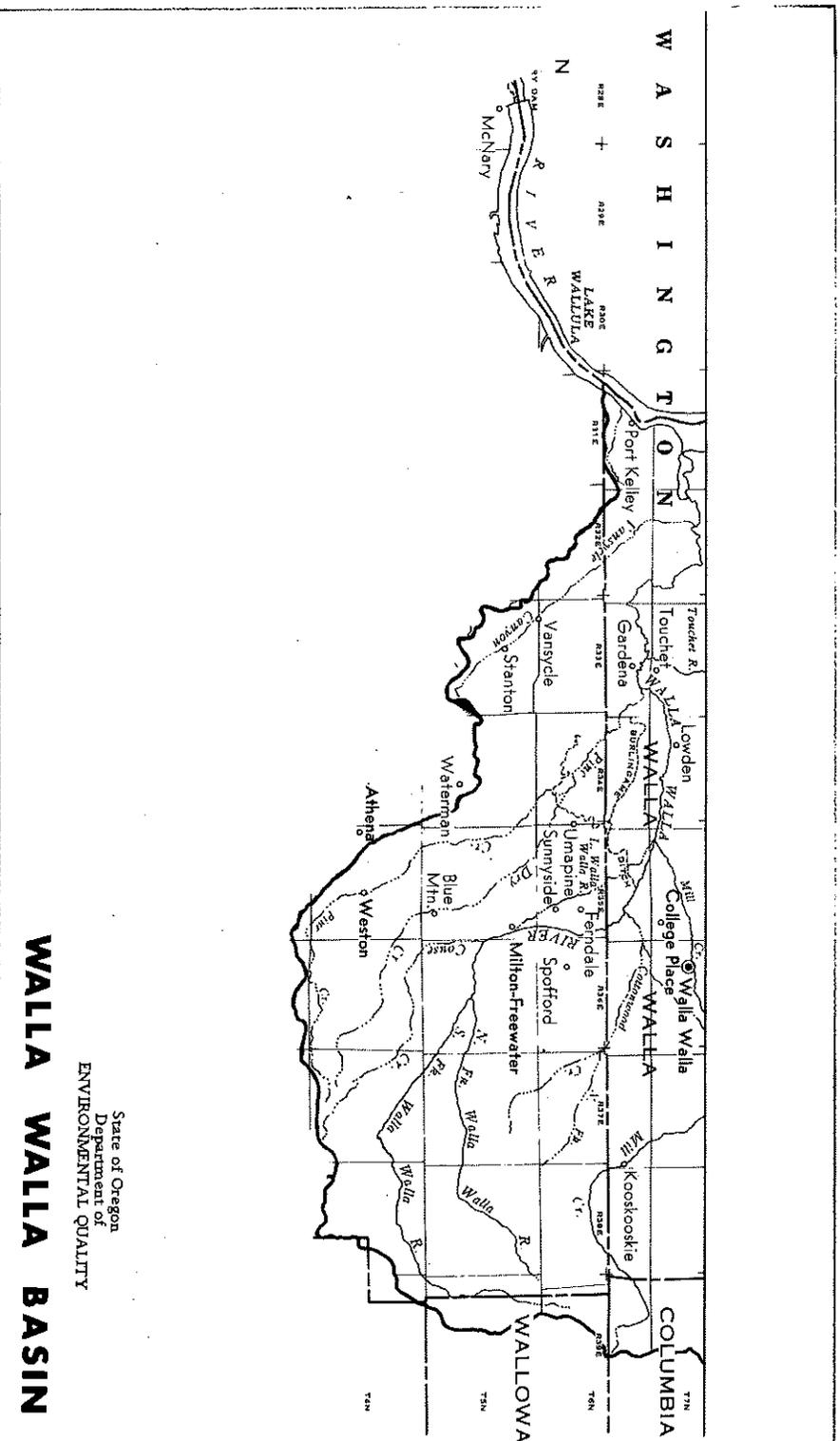
- 1) The uses which are or may likely be made of the receiving stream.
- 2) The size and nature of flow of the receiving stream.

- 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to off-cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

NOTE: E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XVI Walla Walla Basin

[A--Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



State of Oregon
Department of
ENVIRONMENTAL QUALITY

WALLA WALLA BASIN

B.] Beneficial Water Uses to be Protected

Water quality in the Walla Walla River Basin shall be managed to protect the recognized beneficial uses as follows:

	Walla Walla River Main Stem from Confluence of North and South Forks to State Line	All Other Basin Streams
Public Domestic Water Supply	X	X
Private Domestic Water Supply	X	X
Industrial Water Supply	X	
Irrigation	X	X
Livestock Watering	X	X
Anadromous Fish Passage	X	X
Salmonid Fish Rearing	X	X
Salmonid Fish Spawning	X	X
Resident Fish & Aquatic Life	X	X
Wildlife & Hunting	X	X
Fishing	X	X
Boating	X	X
Water Contact Recreation	X	X
Aesthetic Quality	X	X
Hydro Power		X

Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.

2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Walla Walla River Basin:

a. Dissolved Oxygen (DO):

[1] ~~Salmonid-Fish-Producing-Waters:~~ DO concentrations shall not be less than [90] 75 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.

[2] ~~Non-Salmonid-Fish-Producing-Waters:~~ ~~DO-concentrations-shall-not-be-less-than~~
~~75-percent-of-saturation:~~

b. Turbidity (Jackson Turbidity Units, JTU): No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

- c. pH (Hydrogen Ion Concentration): pH values shall not fall outside the range of 6.5 to 8.5.
- d. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):
- Main Stem Walla Walla River:
- Organisms of the Coliform Group where Associated with Fecal Sources. (MPN or equivalent MF using a representative number of samples). Average concentrations of coliform bacteria to exceed 1000 per 100 milliliters, with 20% of these samples not to exceed 2400 per 100 milliliters.
- e. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- f. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- g. The development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.

- h. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- i. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- j. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- k. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- l. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- m. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.
- n. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B.] A.

	<u>mg/l</u>
Arsenic (As)	0.01
Barium (Ba)	1.0
Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Chloride (Cl)	25.
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.03
Manganese (Mn)	0.05
Phenols (totals)	0.001
Total dissolved solids	200.0
Zinc (Zn)	0.01

0. Temperature. No measurable increase when river temperatures are 68° F. or greater; or more than 0.5° F. due to a single-source discharge when receiving waters are 67.5° F. or less or more than 2° F. increase due to all sources combined when river temperatures are 66° F. or less.
3. Where the natural quality parameters of waters of the Malla Malla River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. Mixing Zones:

- a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
- b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.
- c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
 - 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and

b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

C [9] Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of wastes from any new or modified facility to any waters of the Walla Walla River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range in variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This particularly true for biological treatment facilities. The actual operating limits are intended established by permit pursuant to ORS 468.740 and recognize that the actual performance level may times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468-740.]

1. Sewage Wastes:

- a. During periods of low stream flows (approximately April 1 to October 31): [~~High Quality Secondary~~] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of suspended solids or equivalent control [~~shall~~] be provided.
- b. During the period of high stream flows (approximately November 1 to March 31): A minimum of [~~conventional~~] Secondary Treatment or equivalent [~~shall~~] be provided [~~and unless otherwise specifically authorized by the Department, operation of all waste treatment facilities shall be operated~~] at [~~a~~] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least [] part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.

f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

a. [All industrial waste shall receive.] After maximum practicable inplant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solid and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [before being discharged].

b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:

- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.

- d. Industrial cooling waters containing significant heat loads shall be subjected to offsite cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

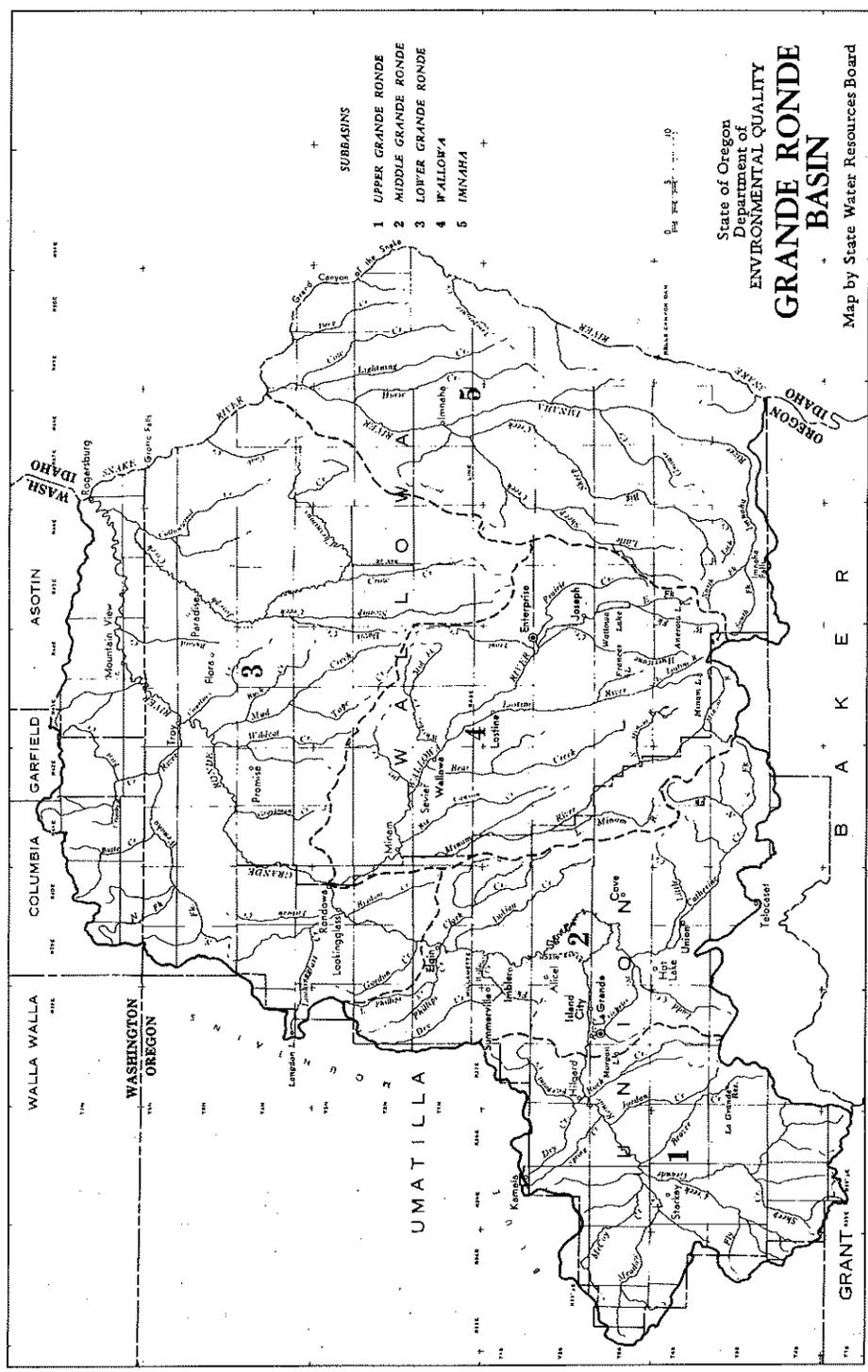
[3. General:

- a. ~~For any new or substantially modified waste sources, alternatives for treatment and disposal of waste shall be fully evaluated. Alternatives which utilize reuse or disposal with no discharge to public waters shall be given highest priority for use whenever practicable.]~~

NOTE: E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XVII Grande Ronde Basin

[A--Preface--v--v--v--] (Note: Preface consolidated for all basins into Sections I and II.)



[B]. Beneficial Water Uses to be Protected

Water quality in the Grande Ronde River Basin shall be managed to protect the recognized beneficial uses as follows:

Beneficial Uses	Main Stem Snake River (RM 176 to 260)		Main Stem Grande Ronde River, [miles] (RM 39 to 165)		All Other Basin Waters
	X		X		
Public Domestic Water Supply <u>1/</u>	X		X		X
Private Domestic Water Supply <u>1/</u>	X		X		X
Industrial Water Supply	X		X		X
Irrigation	X		X		X
Livestock Watering	X		X		X
Anadromous Fish Passage	X		X		X
Salmonid Fish Rearing	X		X		X
Salmonid Fish Spawning	X		X		X
Resident Fish & Aquatic Life	X		X		X
Wildlife & Hunting	X		X		X
Fishing	X		X		X
Boating	X		X		X
Water Contact Recreation	X		X		X
Aesthetic Quality	X		X		X
Commercial Navigation & <u>Transportation</u>	X				

1/ with adequate pretreatment and natural quality treatments drinking water standards.

[6]. Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic material radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.

2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Grande Ronde River Basin:

a. Dissolved Oxygen (DO):

[1] ~~Main Stem Grande Ronde River, Miles 39 to 165~~] DO concentrations shall not be less than 75 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.

[2] ~~Main Stem Snake River~~: Same as above except 75% and 90%.

[3] ~~All Other Basin Waters~~: Same as #1, except 90% and 95%.

b. Temperature:

[+] ~~Fresh Waters~~] No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except specifically limited duration activities which may be specifically authorized by under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

c. Turbidity (Jackson Turbidity Units, JTU):

No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the following range [~~of 6.5 to 8.5.~~]

1) Main Stem Snake River (RM 176 to 260): 7.0 to 9.0

2) All Other Basin Streams: 6.5 to 8.5

e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent using a representative number of samples):

[1] Main Stem Grande Ronde River, ([Miles] RM 39 to 165) and Main Stem Snake River (176 to 260): Average concentrations shall not exceed 1000 per 100 ml, with 20% the samples not to exceed 2400 per 100 milliliters.

[2] Main Stem Snake River: (Same as No. 1 above):-

[3] All Other Basin Waters: Average concentrations of coliform organisms shall not exceed 240 per 100 milliliters, or exceed this value in more than 20% of the samples.

- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or otherwise injurious to public health shall be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottom fish or other aquatic life, or which are injurious to health, recreation or industry not be allowed.

- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health or recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily slick or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) for drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation, except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

[1] Potentially Deleterious Substances:]

[2] Total Dissolved Solids:]

[a] Main Stem Grande Ronde River, Miles 39 to 165: 200 mg/l.]

[b] Main Stem Snake River: 750 mg/l.]

[c] All Other Basin Waters: 200 mg/l.]

	mg/l
Arsenic (As)	0.01
Barium (Ba)	1.0
Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Zinc (Zn)	0.01

Total dissolved solids --

Main Stem Grande Ronde River	200.0
Main Stem Snake River	750.0

3. Where the natural quality parameters of waters of the Grande Ronde River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.
4. Mixing Zones:
 - a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
 - b. The sole method of establishing such mixing zone shall be by the Department defining said zone in a waste discharge permit.
 - c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of the waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and

3) Shall limit the mixing zone to that which in all probability, will

- a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
- b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of any wastes from any new or modified facility to any waters of the Grande Ronde River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This is

particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.]

1. Sewage Wastes:

- a. During periods of low stream flows (approximately June 1 to October 31): [High Quality Secondary] Treatment resulting in monthly average effluent concentrations not to exceed [10] 20 mg/l of BOD and [10] 20 mg/l of suspended solids or equivalent control [shall provided].
- b. During the period of high stream flows (approximately November 1 to May 31): A minimum [conventional] Secondary Treatment or equivalent control [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.

- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

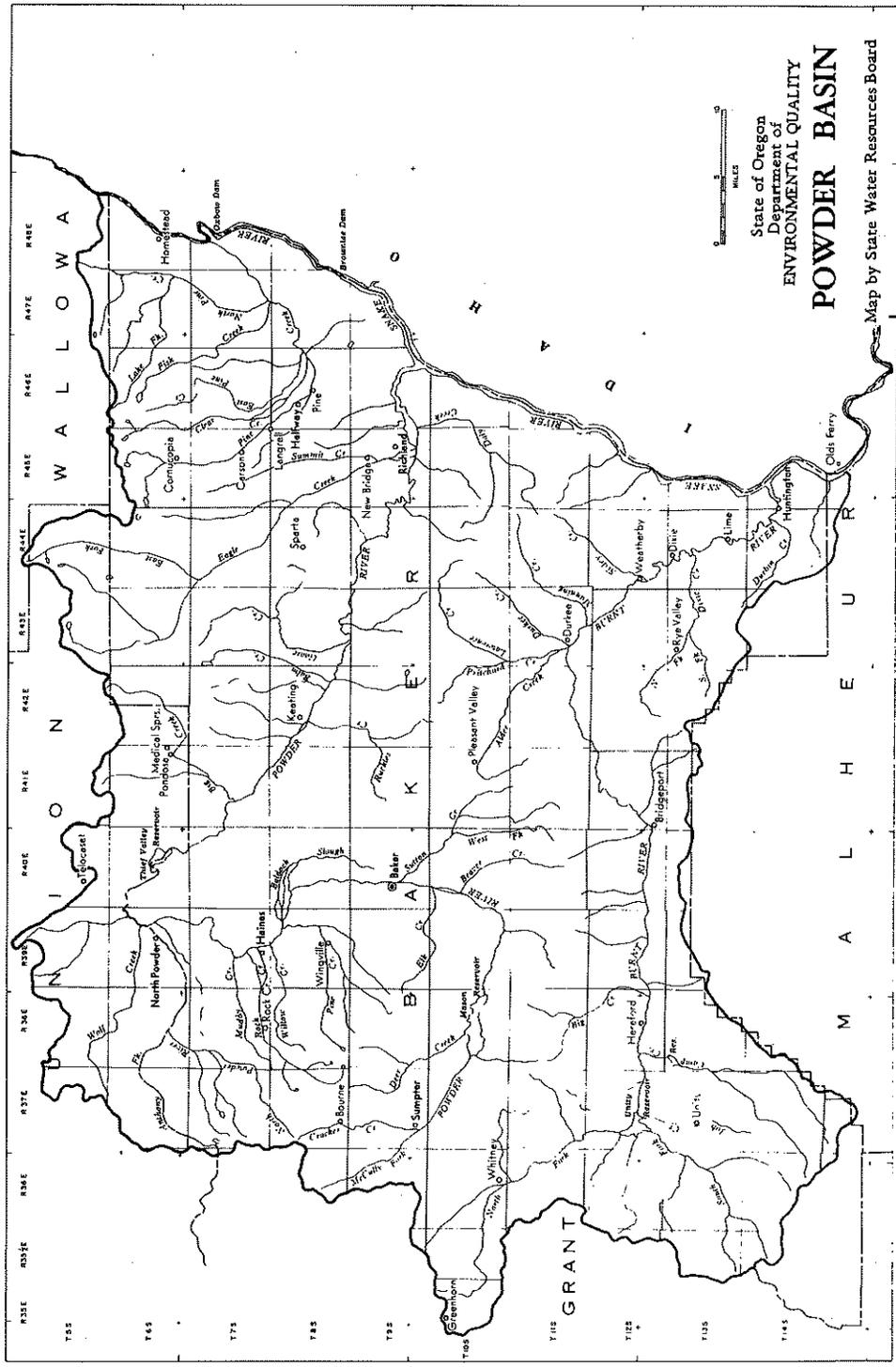
- a. ~~All industrial waste shall receive,~~ After maximum practicable inplant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effect disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [~~before being discharged~~].
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements the following:
 - 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.

- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to off-cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

NOTE: E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XVIII Powder Basin

[A---Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



State of Oregon
Department of
ENVIRONMENTAL QUALITY
POWDER BASIN
Map by State Water Resources Board

B.7] Beneficial Water Uses to be Protected

Water quality in the Powder River Basin shall be managed to protect the recognized beneficial uses as follows:

Beneficial Uses	Main Stem Snake River (RM 260 to 335)		All Other Basin Water
Public Domestic Water Supply ^{1/}	X		X
Private Domestic Water Supply ^{1/}	X		X
Industrial Water Supply	X		X
Irrigation	X		X
Livestock Watering	X		X
Salmonid Fish Rearing	X		X
Salmonid Fish Spawning	X		X
Resident Fish & Aquatic Life	X		X
Wildlife & Hunting	X		X
Fishing	X		X
Boating	X		X
Water Contact Recreation	X		X
Aesthetic Quality	X		X
Hydro Power	X		X

^{1/} With adequate pretreatment and natural water quality to meet drinking water standards

Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practical treatment and/or control of wastes, activities and flows shall in every case be provided as to maintain dissolved oxygen and overall water quality at the highest possible levels as to water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Powder River Basin:

a. Dissolved Oxygen (DO):

- [1] ~~Main Stem Snake River:]~~ DO concentrations shall not be less than 75 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.
- [2] ~~All Other Basin Waters:~~
 - a) ~~Salmonid Fish (Trout) Producing Waters:--(Same as #1--except 90% and 95%)~~
 - b) ~~Non-Salmonid Fish Producing Waters:--D.O. concentrations shall not be less than 6 mg/l]~~

b. Temperature:

- 1) Snake River: No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are ~~[57:5^a]~~ 67.5° F. or less or more than increase due to all sources combined when stream temperatures are 66° F. or less except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
- 2) All Other Basin Waters: No measurable increase in temperature when the receiving temperatures are 64° F. or greater; or more than 0.5° F. increase due to a single discharge where receiving water temperatures are 65° F. or less; or more than 2° increase due to all sources combined when receiving stream temperatures are 62°

~~[a) Salmonid-Fish-(Treat)-Producing-Waters:--(Same-as-#1-except-58^a-F;-57:5^a-F; and-56^a-F)~~

~~b)-Non-Salmonid-Fish-Producing-Waters:--(Same-as-#1)]~~

- c. Turbidity (Jackson Turbidity Units, JTU):
No more than 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

- d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the following range
[of 6.5 to 8.5:]
- 1) Main Stem Snake River (RM 260 to 335): 7.0 to 9.0.
- 2) All other basin streams: 6.5 to 8.5.
- e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples) Main stem Snake River (RM 260 to 335): concentrations of coliform organisms shall not exceed 1,000 per 100 milliliters, with the samples not to exceed 2,400 per 100 ml.
- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottom fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.

- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation except when stream flow exceeds the 10-year, 7-day average flood.

o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B.] A.

Potentially Deleterious Substances:

	mg/l
Arsenic (As)	0.01
Barium (Ba)	1.0
Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Zinc (Zn)	0.01
Total Dissolved Solids:	
Main Stem Snake River	750.0
[All Other Basin Waters]	500.0]

3. Where the natural quality parameters of waters of the Powder River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. Mixing Zones:

a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.

b. The sole method of establishing such mixing zone shall be by the Department definition same in a waste discharge permit.

c. In establishing a mixing zone in a waste discharge permit the Department:

- 1) May define the limits of the mixing zone in terms of distance from the point of waste water discharge or the area or volume of the receiving water or any component thereof,
- 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
- 3) Shall limit the mixing zone to that which in all probability, will

- a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.
5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

C [B] Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharging wastes from any new or modified facility to any waters of the Powder River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variables are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria.)

limit at times due to variables which are unpredictable or uncontrollable. This is particularly for biological treatment facilities. The actual operating limits are intended to be established permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468-740.]

1. Sewage Wastes:

- a. A minimum of ~~conventional~~ Secondary Treatment or equivalent ~~shall be provided~~ and otherwise specifically authorized by the department, the operation of all waste treatment control facilities [shall be operated] at [a] maximum practicable efficiency and effort so as to minimize waste discharges to public waters.
- b. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by
- c. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- d. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- e. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

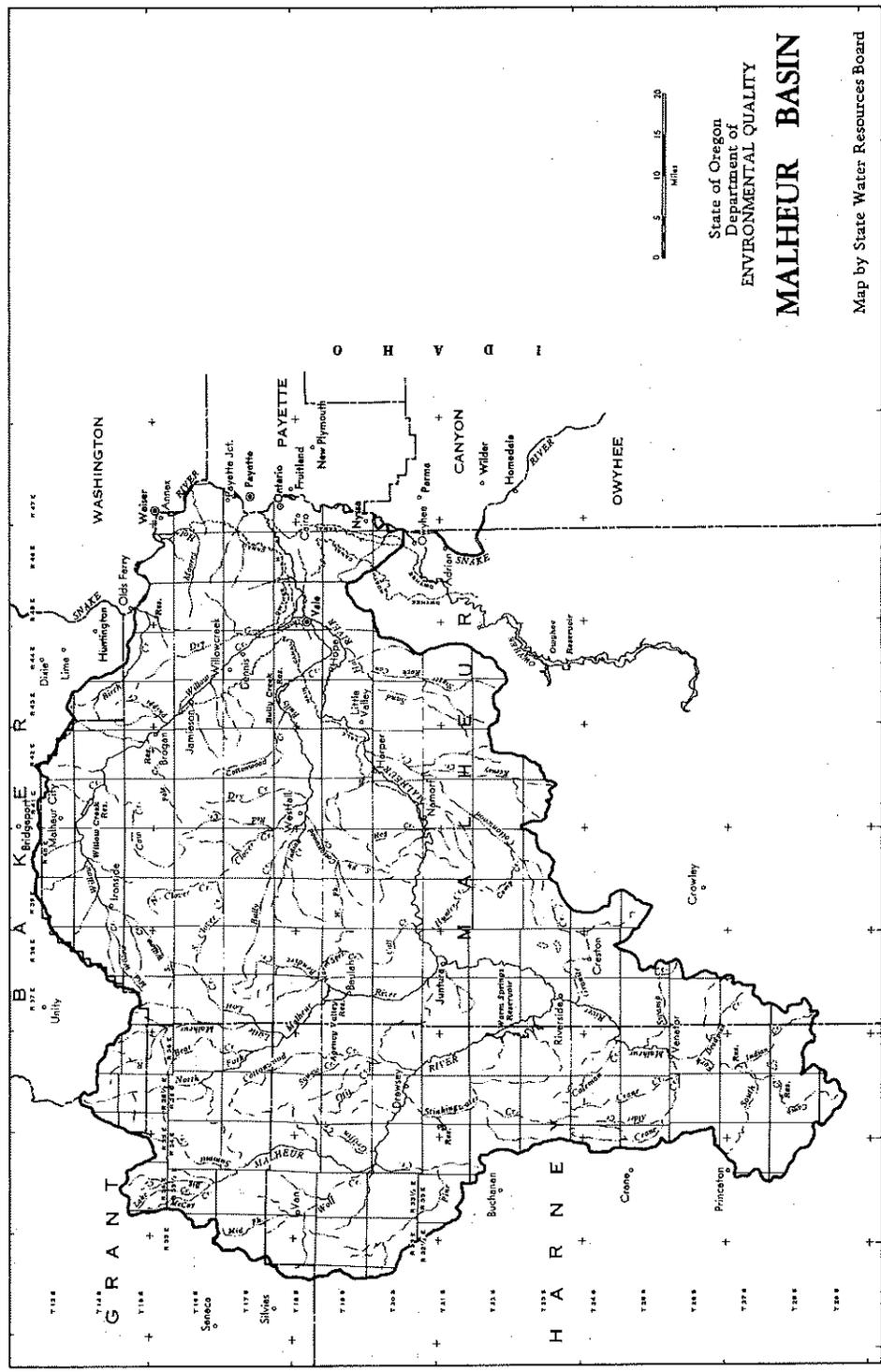
- a. ~~[-All industrial waste shall receive.]~~ After maximum practicable inplant control, a minimum of ~~[High-Quality]~~ Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) ~~[before being discharged.]~~
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:
 - 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.

- d. Industrial cooling waters containing significant heat loads shall be subjected to cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

NOTE: E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XIX Malheur River Basin

[A--Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



State of Oregon
Department of
ENVIRONMENTAL QUALITY
MALHEUR BASIN

Map by State Water Resources Board

A [B]. Beneficial Water Uses to be Protected

Water quality in the Malheur River Basin shall be managed to protect the recognized beneficial uses as follows:

Snake R.
Main Stem
(RM 335 to
395)
Malheur R.
& Tributaries to
Malheur &
Snake Rivers

Beneficial Uses

- Public Domestic Water Supply 1/
- Private Domestic Water Supply 1/
- Industrial Water Supply
- Irrigation
- Livestock Watering
- Salmonid Fish (Trout) Rearing
- Salmonid Fish (Trout) Spawning
- Resident Fish & Aquatic Life
- Wildlife & Hunting
- Fishing
- Boating
- Water Contact Recreation
- Aesthetic Quality

X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X

1/ With adequate pretreatment and where natural quality meets drinking water standards.

B [c]. Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforced pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practice treatment and/or control of wastes, activities and flows shall in every case be provided as to maintain dissolved oxygen and overall water quality at the highest possible level as to water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Malheur River Basin:
 - a. Dissolved Oxygen (DO):
 - [1] ~~Main Stem Snake River (RM 335 to 395)+~~] DO concentration shall not be less than 95% of saturation at the seasonal low or less than 95% of saturation in spawning or during spawning, hatching, and fry stages of salmonid fishes.
 - [2] ~~Malheur River and tributaries to Malheur and Snake Rivers+~~] ~~(a) Salmonid fish (trout) production shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and stages of salmonid fishes.~~
 - [3] ~~Non-salmonid fish (other than trout) producing waters: DO concentration shall not be less than 75% of saturation.~~

b. *Temperature:*

No measurable increases shall be allowed when stream temperatures are 68° F. or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F. increase due to all sources when stream temperatures are 66° F. or less, except for specifically limited discharge activities which may be specifically authorized by DEQ under such conditions as prescribe and which are necessary to accommodate legitimate uses or activities at temperatures in excess of this standard are unavoidable.

c. *Turbidity (Jackson Turbidity Units, JTU):*

No more than a 10 percent increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. *pH (Hydrogen Ion Concentration):* pH values shall not fall outside the range of 9.0.

e. *Organisms of the Coliform Group where Associated with fecal Sources (MPN or equivalent MF using a representative number of samples):*

Mainstem Snake River (FM 335 to 395): Average concentrations of coliform organisms shall not exceed 1000 per 100 milliliters, with 20 percent of samples not to exceed 2400 per [~~100~~] 100 mL, except during periods of high natural surface runoff.

- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, or bathing, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottom fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatics with life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.

- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, live and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the of sample collection shall not exceed one hundred and five percent (105%) of saturation except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may be necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

	mg/l
Arsenic (As)	.01
Barium (Ba)	1.0
Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001

Total dissolved solids (Snake River only) 750.0
Zinc (Zn) 0.01

3. Where the natural quality parameters of waters of the Malheur River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.
4. Mixing Zones:
 - a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
 - b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.
 - c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and

3) Shall limit the mixing zone to that which in all probability, will

- a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
- b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method which case testing shall be in accordance with the superseding method; provided however testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

C [D]. Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge of wastes from any new or modified facility to any waters of the Malheur River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum ~~requirements~~ criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design critical limit at times due to variables which are unpredictable or uncontrollable. This is particularly

for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.]

1. Sewage Wastes:

- a. During summer periods (approximately May 1 to October 31): [~~High Quality Secondary~~] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control [~~shall be provided if and when effluents are discharged to public waters~~].
- b. During winter periods (approximately November 1 to April 30): A minimum of [~~sewage~~] Secondary Treatment or equivalent [~~shall be provided~~] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities shall be operated at [~~a~~] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.

- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

- a. [All industrial waste shall receive,] After maximum practicable implant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [before being discharged].
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements and the following:
- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and

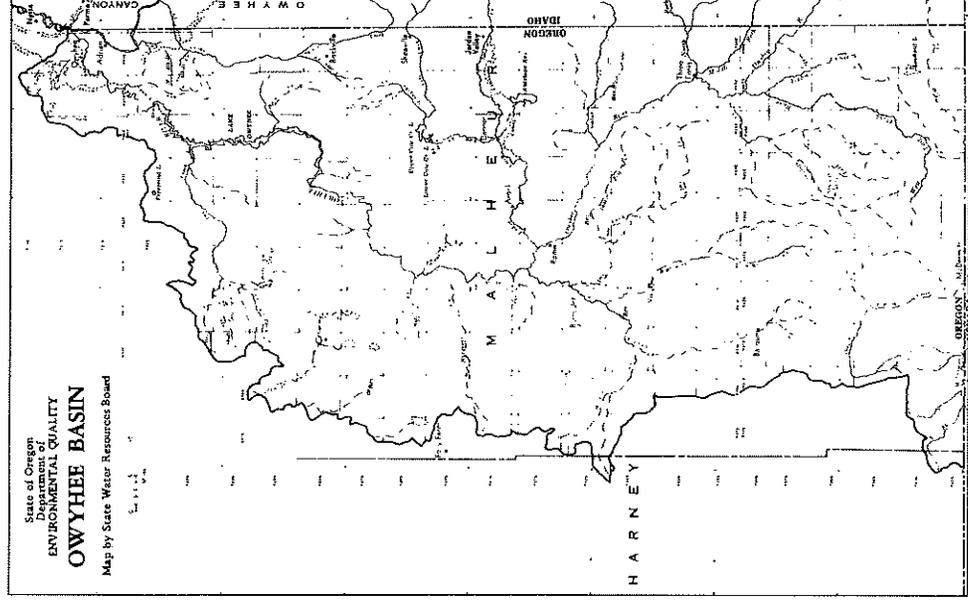
- 4) The presence or absence of other sources of pollution on the same watershed
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to of cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

NOTE:

E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XX Owyhee Basin

[A--Preface---:---:---] (Note: Preface consolidated for all basins into Sections I and II.)



A [P]. Beneficial Water Uses to be Protected

Water quality in the Owyhee River Basin shall be managed to protect the recognized beneficial uses as follows:

Beneficial Uses	Snake R. (RM 395 to 409)	Owyhee Basin	Streams
Public Domestic Water Supply ^{1/}	X	X	X
Private Domestic Water Supply ^{1/}	X	X	X
Industrial Water Supply	X	X	X
Irrigation	X	X	X
Lifestock Watering	X	X	X
Salmonid Fish Rearing	X	X	X
Salmonid Fish Spawning	X	X	X
Resident Fish & Aquatic Life	X	X	X
Wildlife & Hunting	X	X	X
Fishing	X	X	X
Boating	X	X	X
Water Contact Recreation	X	X	X
Aesthetic Quality	X	X	X

^{1/} With adequate pretreatment and where natural quality meets drinking water standards.

B [C]. Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforced pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided as to maintain dissolved oxygen and overall water quality at the highest possible level. water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Owyhee River Basin:
 - a. Dissolved Oxygen (DO):
 - [1] Owyhee River and tributaries to Owyhee and Snake Rivers]
 - [(a) Salmonid fish (trout) producing waters: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent saturation in spawning areas during spawning, incubation, hatching, and states of salmonid fishes.]
 - [(b) Non-salmonid fish (other than trout) producing waters: DO concentration shall not be less than 75% of saturation.]
 - [2] Main Stem Snake River (RM 305 to 400):] DO concentrations shall not be less than 75 percent of saturation at the seasonal low or less than 95 percent of saturation in spawning areas during spawning, hatching, and fry stages of salmonid fishes.

b. *Temperature:*

No measurable increases shall be allowed when stream temperatures are 68° F. or greater or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F. increase due to all sources when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it prescribes and which are necessary to accommodate legitimate uses or activities when temperatures in excess of this standard are unavoidable.

c. *Turbidity (Jackson Turbidity Units, JTU):*

No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. *pH (Hydrogen Ion Concentration):* pH values shall not fall outside the range of 7.9.0.

e. *Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples):*

Mainstem Snake River (RM 395 to 409): Average concentrations of coliform organisms not exceed 1000 per 100 milliliters, with 20 percent of the samples not to exceed 100 ml, except during periods of high natural surface runoff.

- f. *Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, or bathing, or otherwise injurious to public health shall not be allowed.*
- g. *The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made in such waters shall not be allowed.*
- h. *The development of fungi or other growths having a deleterious effect on stream biota, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.*
- i. *The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish shall not be allowed.*
- j. *The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.*
- k. *Objectionable discoloration, scum, oily slick or floating solids, or coating of a surface with oil films shall not be allowed.*
- l. *Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.*

- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations in drinking water, edible fishes, wildlife, irrigated crops, livestock and dairies or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the time of sample collection shall not exceed one hundred and five percent (105%) of saturation except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may be necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

Arsenic (As)	mg/l
Barium (Ba)	0.01
Boron (Bo)	1.0
Cadmium (Cd)	0.5
Chromium (Cr)	0.003
Copper (Cu)	0.02
Cyanide (Cn)	0.005
Fluoride (F)	0.005
Iron (Fe)	1.0
Lead (Pb)	0.1
Manganese (Mn)	0.05
Phenols (totals)	0.05
	0.001

Total dissolved solids (Snake River only)

750.0

Zinc (Zn)

[0.1] 0.01

3. Where the natural quality parameters of waters of the Owyhee River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.
4. *Mixing Zones:*
 - a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
 - b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.
 - c. In establishing a mixing zone in a waste discharge permit the Department:
 - 1) May define the limits of the mixing zone in terms of distance from the point of waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and

3) Shall limit the mixing zone to that which in all probability, will

- a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
- b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

[P]. Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [P-3] IV.C., prior to discharge of wastes from any new or modified facility to any waters of the Ouyhee River Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [Requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criterion limit at times due to variables which are unpredictable or uncontrollable. This is particularly true

for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.]

1. Sewage Wastes:

[a. During summer periods (approximately May 1 to October 31): High Quality Secondary Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/L of BOD and 20 mg/L of suspended solids or equivalent control shall be provided if and when effluents are discharged to public waters.]

a. [b. During winter periods (approximately November 1 to April 30):] A minimum of [seventeen] Secondary Treatment or equivalent control [shall be provided] and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

b [e]. Effluent BOD concentrations in mg/L, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.

c [d] Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.

d [e]. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.

e [f]. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

a. ~~[All industrial waste shall receive]~~ After maximum practicable inplant control, a minimum of ~~[High quantity]~~ Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) ~~[before being discharged]~~.

b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements and the following:

- 1) The uses which are or may likely be made of the receiving stream.
- 2) The size and nature of flow of the receiving stream.
- 3) The quantity and quality of wastes to be treated, and
- 4) The presence or absence of other sources of pollution on the same watershed.

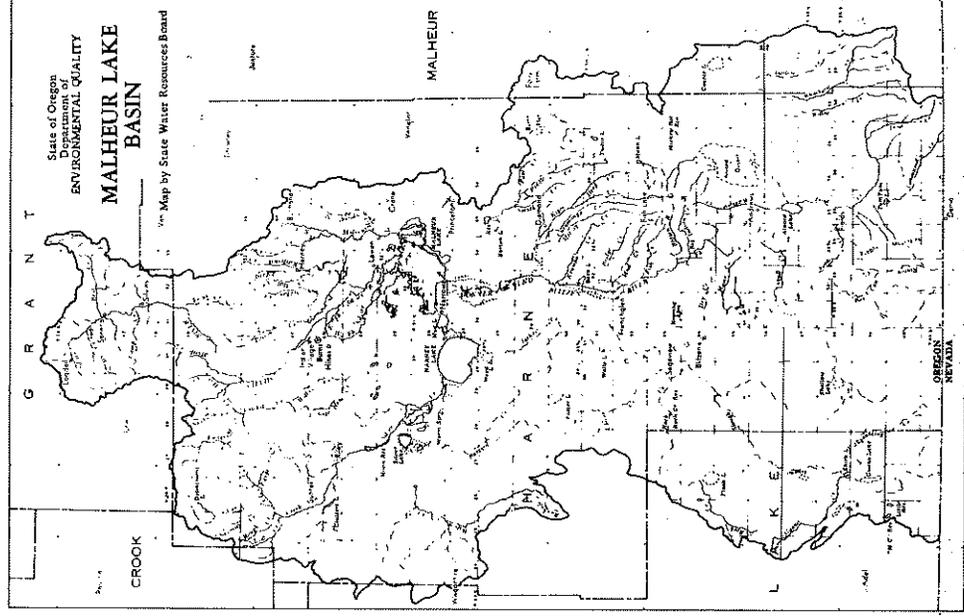
- c. *Where industrial, commercial or agricultural effluents contain significant quantities potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.*
- d. *Industrial cooling waters containing significant heat loads shall be subjected to offstream cooling or heat recovery prior to discharge to public waters.*
- e. *Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.*
- f. *Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.*

NOTE:

E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XXI Malheur Lake Basin

[A--Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



A. [B.] Beneficial Water Uses to be Protected

Water quality in the Malheur Lake Basin shall be managed to protect the recognized beneficial beneficiaries as follows:

<i>Beneficial Uses</i>	<i>Natural Lakes</i>	<i>All Rivers and Tributaries</i>
<i>Public Domestic Water Supply</i>		X
<i>Private Domestic Water Supply</i>		X
<i>Industrial Water Supply</i>		X
<i>Irrigation</i>	X	X
<i>Lifestock Watering</i>	X	X
<i>Salmonid Fish (Trout) Rearing</i>		X
<i>Resident Fish (Trout) Spawning</i>		X
<i>Resident Fish & Aquatic Life</i>	X	X
<i>Wildlife & Hunting</i>	X	X
<i>Fishing</i>	X	X
<i>Boating</i>	X	X
<i>Water Contact Recreation</i>	X	X
<i>Aesthetic Quality</i>	X	X

B. [G-] Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforced pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided as to maintain dissolved oxygen and overall water quality at the highest possible levels. water temperatures, coliform bacteria concentrations, dissolved chemical substances, materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Malheur Lake Basin:
 - a. Dissolved Oxygen (DO):
 - [1] ~~Salmonid Fish (Trout) Producing Waters:~~ DO concentrations shall not be less than 75 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.

[2] ~~All other waters: DO concentrations shall not be less than 6 mg/l.~~

b. Temperature:

No measurable increases shall be allowed when stream temperatures are ~~58°~~ 68° F. or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are ~~57.5°~~ 67.5° F. or less or more than 2° F. increase due to all combined when stream temperatures are ~~56°~~ 66° F. or less, except for specific duration activities which may be specifically authorized by DEQ under such conditions it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.

c. Turbidity (Jackson Turbidity Units, JTU):

No more than 10 percent increase in natural stream turbidities shall be allowed for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidity in excess of this standard are unavoidable.

d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the range of 7.0 to 9.0.

e. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation or bathing, or otherwise injurious to public health shall not be allowed.

f. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.

- g. The development of fungi or other growths having a deleterious effect on stream life, fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- h. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.
- i. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- j. Objectionable discoloration, scum, oily sleek or floating solids, or coating of stream life with oil films shall not be allowed.
- k. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- l. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations in drinking water, edible fishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- m. The concentration of total dissolved gas relative to atmospheric pressure at the time of sample collection shall not exceed one hundred and five percent (105%) of saturation except when stream flow exceeds the 10-year, 7-day average flood.

o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B] A.

Arsenic	mg/l
Barium (Ba)	0.01
Boron (Bo)	1.0
Cadmium (Cd)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (Fl)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Total dissolved solids	500:0
Zinc (Zn)	0.01

3. Where the natural quality parameters of waters of the Malheur Lake Basin are outside numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. *Mixing Zones:*

- a. *The Department may suspend the applicability of all or part of the water quality set forth in this section, except those standards relating to aesthetic conditions within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.*
- b. *The sole method of establishing such mixing zone shall be by the Department definition in a waste discharge permit.*
- c. *In establishing a mixing zone in a waste discharge permit the Department:*
 - 1) *May define the limits of the mixing zone in terms of distance from the point of waste water discharge or the area or volume of the receiving water or any thereof,*
 - 2) *May set other less restrictive water quality standards to be applicable in mixing zone in lieu of the suspended standards; and*
 - 3) *Shall limit the mixing zone to that which in all probability, will*
 - a) *Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and*
 - b) *Not adversely affect any other beneficial use disproportionately.*

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method which case testing shall be in accordance with the superseding method; provided however testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

C [D.] Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F.3] IV.C., prior to discharging wastes from any new or modified facility to any waters of the Malheur Lake Basin such wastes treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variations are generally used in establishing design criteria. A facility once completed and placed in service should operate at or near the design limit most of the time but may operate below the design limit at times due to variables which are unpredictable or uncontrollable. This is particularly for biological treatment facilities. The actual operating limits are intended to be established pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. [Requirements for operation and discharge standards shall be set forth in permits pursuant to ORS-468.740.]

1. Sewage Wastes:

- a. A minimum of ~~conventional~~ Secondary Treatment or equivalent ~~shall be provided~~ otherwise specifically authorized by the Department, operation of all waste treatment control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- b. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of stream flow to effluent flow) shall not exceed one (1) unless otherwise approved EQC.
- c. Sewage wastes shall be disinfected, after treatment and prior to discharge, equal to thorough mixing with sufficient chlorine to provide a residual of at least 1 million after 60 minutes of contact time unless otherwise specifically authorized permit.
- d. Positive protection shall be provided to prevent bypassing raw or inadequately sewage to public waters unless otherwise approved by the Department where elimination and infiltration would be necessary but not presently practicable.
- e. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

- a. [~~All industrial waste shall receive.~~] After maximum practicable inplant control, a maximum of ~~High Quality~~ Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [~~before being discharged.~~]
- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements and the following:
 - 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.

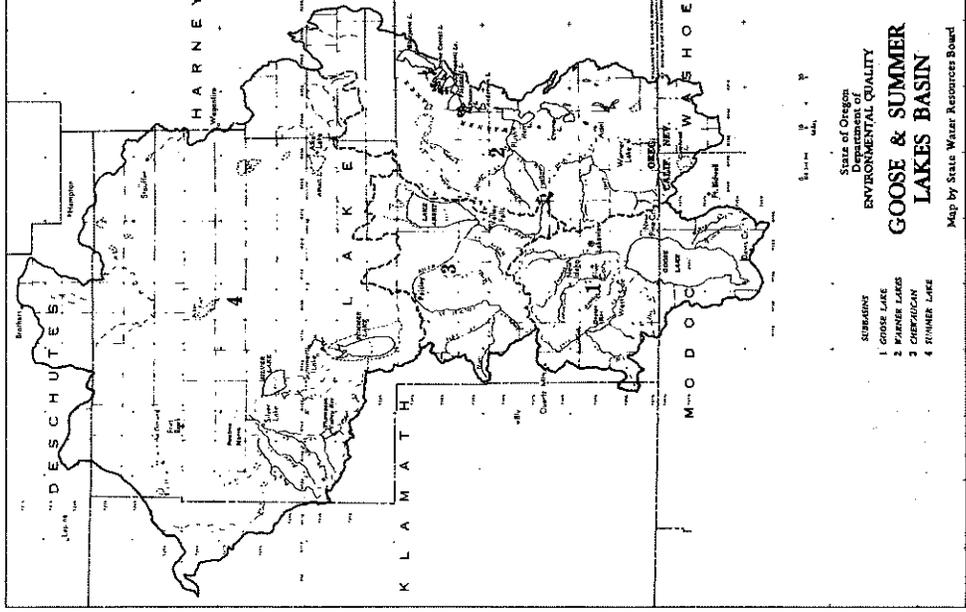
- d. *Industrial cooling waters containing significant heat loads shall be subjected to offstream cooling or heat recovery prior to discharge to public waters.*
- e. *Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.*
- f. *Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.*

OTE:

E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XXII Goose and Summer Lakes Basin

[A-Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



A [B]. Beneficial Water Uses to be Protected

Water quality in the Goose and Summer Lakes Basin shall be managed to protect the recognized beneficial uses as follows:

Beneficial Uses	Goose Lake	Fresh Water Lakes and Reservoirs	Highly Alkaline and Saline Lakes	Freshwater	Streams
Public Domestic Water Supply ^{1/}		X		X	X
Private Domestic Water Supply ^{1/}		X		X	X
Industrial Water Supply		X	X	X	X
Irrigation		X		X	X
Lifestock Watering	X	X		X	X
Salmonid (Trout) Fish Rearing	X	X		X	X
Salmonid (Trout) Fish Spawning		X		X	X
Resident Fish & Aquatic Life	X	X	X	X	X
Wildlife & Hunting	X	X	X	X	X
Fishing	X	X	X	X	X
Boating	X	X	X	X	X
Water Contact Recreation	X	X	X	X	X
Aesthetic Quality	X	X	X	X	X
[Commercial Navigation]	[X]	X	X	X	X

^{1/} With adequate pretreatment and where natural quality meets drinking water standards.

[e]. Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforced pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practice treatment and/or control of wastes, activities and flows shall in every case be provided as to maintain dissolved oxygen and overall water quality at the highest possible levels, water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.

2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Goose and Summer Lakes Basin:

a. Dissolved Oxygen (DO):

- 1) [~~Salmonid Fish (Fry) and spawning waters~~] All basin waters except Goose Lake:
DO concentrations shall not be less than [90] 75 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.
- 2) Goose Lake: DO concentrations shall not be less than 7 milligrams per liter.

[3] All other waters: DO concentrations shall not be less than 6 milligrams per liter.

b. *Temperature:*

- 1) *Goose Lake: Daily average temperatures shall not exceed 70° F. or the daily maximum ambient air temperature, whichever is greater.*
- 2) *All other waters: No measurable increases shall be allowed when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 67.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.*

c. *Turbidity (Jackson Turbidity Units, JTU):*

No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed, except for certain specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

d. *pH (Hydrogen Ion Concentration):*

- 1) *Goose Lake: pH values shall not fall outside the range of 7.5 to 9.5.*
- 2) *All other basin waters: pH values shall not fall outside the range of 7.0 to*

- e. *Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples): Goose Lake: Average concentrations shall exceed 1000 per 100 milliliters, with 20% of the samples not to exceed 2400 per 100 milliliters.*
- f. *Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or otherwise injurious to public health shall not be allowed.*
- g. *The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, recreation, or other reasonable uses made of such waters shall not be allowed.*
- h. *The development of fungi or other growths having a deleterious effect on stream bottom fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.*
- i. *The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish shall not be allowed.*
- j. *The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.*
- k. *Objectionable discoloration, scum, oily slick or floating solids, or coating of aquatic life with oil films shall not be allowed.*

- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC) in drinking water, edible fishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [F] A.

Arsenic (As)	mg/l
Barium (Ba)	0.01
Boron (Bo)	1.0
Cadmium (Cd)	0.5
Chromium (Cr)	0.003
Copper (Cu)	0.02
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
[Total dissolved solids	500-0
Zinc (Zn)	0.01

3. Where the natural quality parameters of waters of the Goose and Summer Lakes Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. *Mixing Zones:*

a. The Department may suspend the applicability of all or part of the water quality standards set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.

b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.

c. In establishing a mixing zone in a waste discharge permit the Department:

- 1) May define the limits of the mixing zone in terms of distance from the point of waste water discharge or the area or volume of the receiving water or any combination thereof,
- 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
- 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.

5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided, however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

C [D]. Minimum Design ~~Requirements~~ Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section ~~F-3~~ IV.C., prior to discharge of any wastes from any new or modified facility to any waters of the Goose and Summer Lakes Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum ~~requirements~~ criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria. ~~Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468.740.~~)

1. Sewage Wastes:

a. A minimum of ~~conventional~~ Secondary Treatment or equivalent ~~shall be provided~~

unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities [shall be operated] at [a] maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

- b. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1), unless otherwise authorized by the Environmental Quality Commission for existing facilities.
- c. Sewage wastes shall be disinfected, after treatment and prior to discharge, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- d. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.
- e. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

- a. ~~All industrial waste shall receive.~~ After maximum practicable implant control, a minimum of [High Quality] Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effect

disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) [before being discharged].

- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements and the following:
- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to off stream cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.

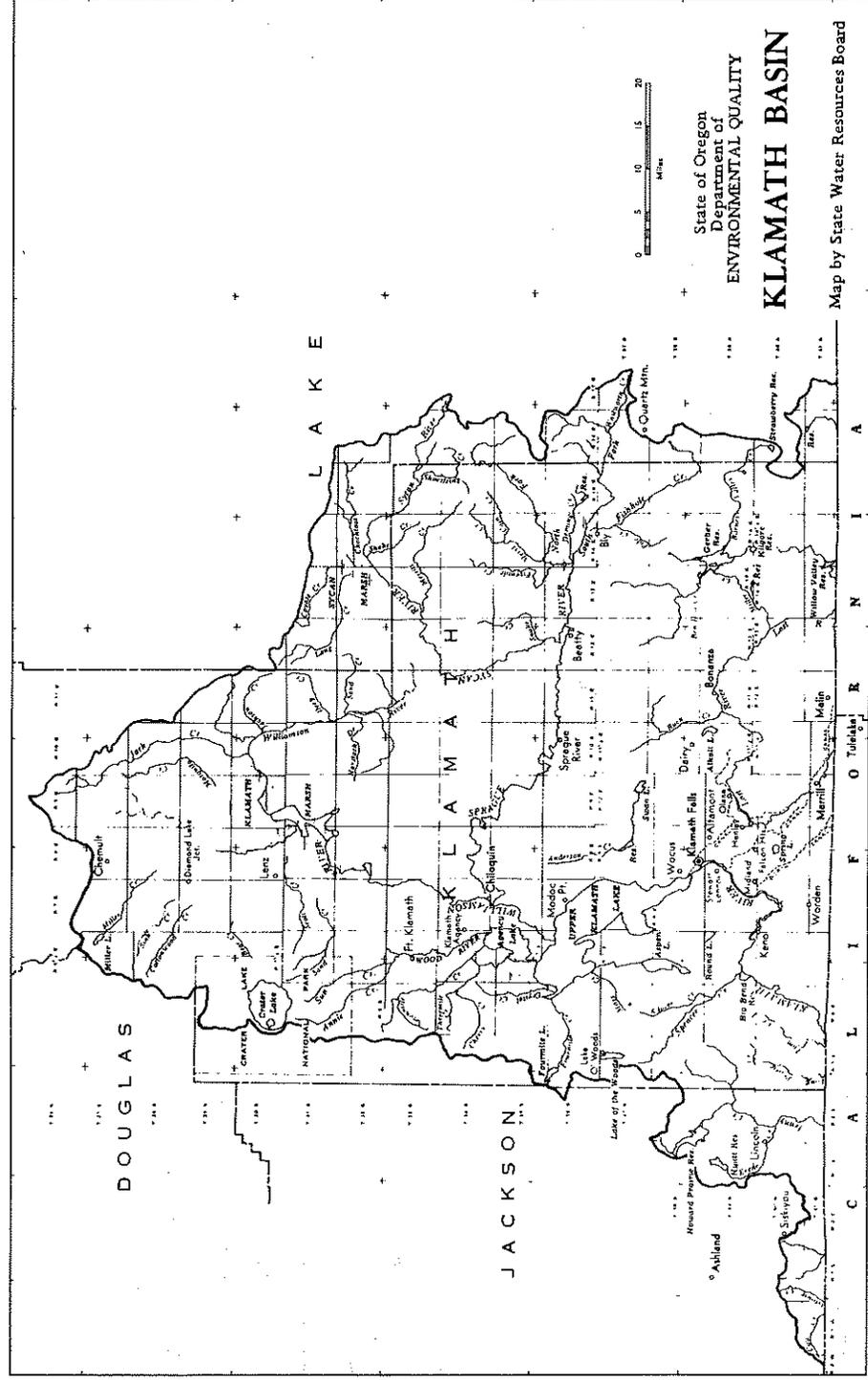
f. *Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.*

NOTE:

E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

XXIII Klamath Basin

[A--Preface-----] (Note: Preface consolidated for all basins into Sections I and II.)



A. [B-] Beneficial Water Uses to be Protected

Water quality in the Klamath Basin shall be managed to protect the recognized beneficial uses as follows:

<u>Beneficial Uses</u>	<u>Klamath River From Klamath Lake to Keno Dam (RM 255 to 232.5)</u>	<u>Lost River (RM 5 to 65) and Lost River Diversion Channel</u>	<u>All Other Basin Waters</u>
Public Domestic Water Supply ^{1/}	X	X	X
Private Domestic Water Supply ^{1/}	X	X	X
Industrial Water Supply	X	X	X
Irrigation	X	X	X
Livestock Watering	X	X	X
Salmonid Fish Rearing ^{2/}			X
Salmonid Fish Spawning ^{2/}			X
Resident Fish & Aquatic Life	X	X	X
Wildlife & Hunting	X	X	X
Fishing	X	X	X
Boating	X	X	X
Water Contact Recreation	X	X	X
Aesthetic Quality	X	X	X
Hydro Power	X		
Commercial Navigation & <u>Transportation</u>	X		

^{1/} With adequate pretreatment and natural quality to meet drinking water standards
^{2/} Where natural conditions are suitable for salmonid fish use.

Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.735 and enforceable pursuant to ORS 468.720, 468.990 and 468.992.)

1. Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest possible levels.
2. No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the Klamath Basin:
 - a. Dissolved Oxygen (DO):
 1. Main Stem Klamath River from Klamath Lake to Keno Dam (RM 255 to 232.5): DO concentrations shall not be less than 5 mg/l.
 2. Main Stem Klamath River from Keno Dam to Oregon-California Border (RM 232.5 to 208.5): DO concentrations shall not be less than 7 mg/l.
 3. All Other Basin Waters:
 - a) Salmonid Fish (Trout) Producing Waters: DO concentrations shall not be less than 90% of saturation at the seasonal low, or less than 95% of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.

- b) Non-Salmonid Fish Producing Waters: DO concentrations shall not be less than 6 mg/l.

b. Temperature:

- 1) Salmonid Fish (Trout) Producing Waters: No measurable increases shall be allowed when stream temperatures are 58° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 57.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 56° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
 - 2) Non-Salmonid Fish Producing Waters: No measurable increases shall be allowed when stream temperatures are 72° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 71.5° F. or less or more than 2° F. increase due to all sources combined when stream temperatures are 70° F. or less, except for specifically limited duration activities which may be specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable.
- c. Turbidity (Jackson Turbidity Units, JTU):
No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be

specifically authorized by DEQ under such conditions as it may prescribe and which are necessary to accommodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable.

- d. pH (Hydrogen Ion Concentration): pH values shall not fall outside the range of 7.0 to [8.5] 9.0.
- e. Organisms of the Coliform Group where Associated with Fecal Sources (MPN or equivalent MF using a representative number of samples): Main stem Klamath River: Average concentration shall not exceed 1,000 per 100 milliliters, with 20% of the samples not to exceed 2,400 100 liters.
- f. Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.
- g. The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.
- h. The development of fungi or other growths having a deleterious effect on stream bottom fish or other aquatic life, or which are injurious to health, recreation or industry shall not be allowed.
- i. The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.

- j. The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation or industry shall not be allowed.
- k. Objectionable discoloration, scum, oily slick or floating solids, or coating of aquatic life with oil films shall not be allowed.
- l. Aesthetic conditions offensive to the human senses of sight, taste, smell or touch shall not be allowed.
- m. Radioisotope concentrations shall not exceed Maximum Permissible Concentrations (MPC's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products or pose an external radiation hazard.
- n. The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation except when stream flow exceeds the 10-year, 7-day average flood.
- o. Dissolved Chemical Substances: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in Section [B-] A.

[B-] ~~Potential Deleterious Substances:~~

	<u>mg/l</u>
Arsenic (As)	0.01
Barium (Ba)	1.0

	<u>mg/l</u>
Boron (Bo)	0.5
Cadmium (Cd)	0.003
Chromium (Cr)	0.02
Copper (Cu)	0.005
Cyanide (Cn)	0.005
Fluoride (F)	1.0
Iron (Fe)	0.1
Lead (Pb)	0.05
Manganese (Mn)	0.05
Phenols (totals)	0.001
Zinc (Zn)	0.01

[2] Total Dissolved Substances:

[a] Main Stem Klamath River from Klamath Lake to the Oregon-California Border (RM 255 to 208.5): The specific conductance shall not exceed 400 micromhos at 77° F. when measured at the Oregon California border (RM 208.5).

[b] ~~All-Other-Basin-Waters--The-TDS-shall-not-exceed-300-mg/l--~~

3. Where the natural quality parameters of waters of the Klamath Basin are outside the numeric limits of the above assigned water quality standards, the natural water quality shall be the standard.

4. Mixing Zones:

a. The Department may suspend the applicability of all or part of the water quality stand

- set forth in this section, except those standards relating to aesthetic conditions, within a defined immediate mixing zone of specified and appropriately limited size adjacent to or surrounding the point of waste water discharge.
- b. The sole method of establishing such mixing zone shall be by the Department defining same in a waste discharge permit.
- c. In establishing a mixing zone in a waste discharge permit the Department:
- 1) May define the limits of the mixing zone in terms of distance from the point of waste water discharge or the area or volume of the receiving water or any combination thereof,
 - 2) May set other less restrictive water quality standards to be applicable in the mixing zone in lieu of the suspended standards; and
 - 3) Shall limit the mixing zone to that which in all probability, will
 - a) Not interfere with any biological community or population of any important species to a degree which is damaging to the ecosystem; and
 - b) Not adversely affect any other beneficial use disproportionately.
5. Testing Methods: The analytical testing methods for determining compliance with the water quality standards contained in this section shall be in accordance with the most recent edition of Standard Methods for the Examination of Water and Waste Water published jointly the American Public Health Association, American Water Works Association, and Water Pollut

Control Federation, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided however that testing in accordance with an alternative method shall comply with this section if the Department has published the method or has approved the method in writing.

C [B] Minimum Design [Requirements] Criteria for Treatment and Control of Wastes

Subject to the implementation program set forth in Section [F-3] IV.C., prior to discharge any wastes from any new or modified facility to any waters of the Klamath Basin such wastes shall be treated and controlled in facilities designed in accordance with the following minimum [requirements] criteria: (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level at times be less than the design criteria. [Requirements for operation and discharge standards shall be established in permits pursuant to ORS 468-740.]

1. Sewage Wastes:

- a. During periods of low stream flows (approximately May 1 to October 31): [~~High Quality~~ ~~Secondary~~] Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of suspended solids or equivalent control [~~shall~~ be provided

- b. During the period of winter stream flows (approximately November 1 to April 30): A minimum of ~~conventional~~ Secondary Treatment or equivalent ~~shall be provided~~ and unless otherwise specifically authorized by the Department, operation of all waste treatment facilities shall be operated at a maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.
- c. Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the Department.
- d. Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.
- e. Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of infiltration and inflow would be necessary but not presently practicable.
- f. More stringent waste treatment and control requirements may be imposed where special conditions may require.

2. Industrial Wastes.

- a. ~~All industrial waste shall receive,~~ After maximum practicable inplant control, a minimum of ~~High Quality~~ Secondary Treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances) ~~before being discharged.~~

- b. Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements and the following:
- 1) The uses which are or may likely be made of the receiving stream.
 - 2) The size and nature of flow of the receiving stream.
 - 3) The quantity and quality of wastes to be treated, and
 - 4) The presence or absence of other sources of pollution on the same watershed.
- c. Where industrial, commercial or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.
- d. Industrial cooling waters containing significant heat loads shall be subjected to oil, grease, suspended solids, cooling or heat recovery prior to discharge to public waters.
- e. Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.
- f. Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

E: E. Policies and Guidelines, and F. Implementation Program, which appeared in the original basin plan are consolidated in Sections III and IV, respectively.

State-Wide Water Quality Management Plan, December 1976, Volumes I, II, & III

Summary of Written Testimony Received Through December 17, 1976

A. General Comments Relative to State-Wide Plan.

1. 12/9/76, J. F. Cormack, Crown Zellerbach Corporation, regarding policy statements, beneficial uses, dissolved oxygen, temperature, total dissolved solids, EPA regulations, sewage treatment criteria, sewage disinfection, by-passing, aesthetic conditions, and stream classifications.
2. 12/9/76, E. J. Kirkpatrick, Western Kraft Paper Company, citing the fact that the DEQ had changed the beginning date for summer flow conditions.
3. 12/15/76, Terry Waldele, CRAG, wanting a better definition of policies and guidelines and Willamette Basin sewerage planning.

B. Specific Comments Relative to Individual Basins.

1. Rogue Basin

- a. 12/3/76, Duane Scoggins, City of Medford, failure of DEQ to up-date cost estimates for projected sewage facilities.
- b. 12/3/76, Clifford Shaw, Marquess and Associates, regarding beneficial uses and industrial wastes.
- c. 12/6/76, Duane Scoggins, City of Medford, relative to judgement values built into standards, dissolved chemicals, aesthetic conditions, sewage waste, and waste treatment requirements.
- d. 12/10/76, Jack Hoffbuhr, Greater Medford Chamber of Commerce. Water quality standards should not interfere with water storage project developments.
- e. 12/10/76, L. J. Stein, Portland District Corps of Army Engineers. Interpretation of proposed turbidity standard ambiguous and concerned about sensitivity of instrument used to determine same.
- f. 12/13/76, Allen Alsing, City of Ashland, pertaining to aesthetic conditions, effluent dilution requirements, and temperature standards.

2. Mid Coast Basin

- a. 12/8/76, Thor Mork, seeking clarification sewage treatment programs in Lincoln County.

3. Umpqua Basin - South Umpqua River Turbidity Standard

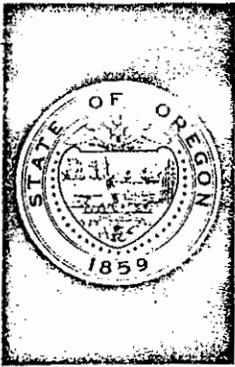
a. Proponents to proposed addendum

11/9/76, James Sexon, Director, Dept. of Water Resources

b. Opponents to proposed addendum

11/10/76, Robt. U. Mace, Dept. of Fish & Wildlife
11/17/76, Fred Cleaver, National Marine Fisheries Service
12/3/76, M. D. Sylvester & Nita Sylvester, private citizens
12/3/76, Alvira Ward, private citizen
12/4/76, Jackie Robertson, private citizen
12/3/76, Dan Gregg, private citizen
12/3/76, Eric Eisenberg, private citizen
12/3/76, Kevin Kehoe, private citizen
12/3/76, Gaston Porterie, private citizen
12/4/76, D. W. Clark, private citizen
12/4/76, Warren E. Wood, private citizen
12/5/76, Mildred Rouleau, private citizen
12/6/76, C. San Filippo, private citizen
12/6/76, J. Ray Kennedy & Ellen F. Kennedy, private citizens
12/6/76, Mrs. Jean Davis, private citizen
12/6/76, Rosalee LaFond, private citizen
12/6/76, Dean Powell & Josephine Powell, private citizens
12/6/76, L. Seese, private citizen
12/6/76, Brent C. Fletcher, private citizen
12/6/76, John Braga, private citizen
12/6/76, M. D. Sylvester & Nita Sylvester, private citizens
12/6/76, Evelyn Garn, private citizen
12/6/76, Annie Goddard, private citizen
12/6/76, Moses Chalmers, private citizen
12/6/76, Bill Finch, private citizen
12/6/76, Phyllis Finch, private citizen
12/6/76, Darwin Swingley, private citizen
12/6/76, Mr. & Mrs. Edward Hart, private citizens
12/7/76, Mr. & Mrs. Darwin Powell, private citizens
12/7/76, Louise Weseman, private citizen
12/7/76, Elizabeth R. Levine, private citizen
12/7/76, Gary S. Zimmerman, private citizen
12/7/76, Ray Wright & Esther Wright, private citizens
12/7/76, Earl R. Garn, private citizen
12/7/76, Stanley A. Whitney & Venita C. Whitney, private citizens
12/7/76, Mr. & Mrs. Dean Mentzel, private citizens
12/8/76, Cheryl Kolander, private citizen
12/8/76, Jessalyn Floch, private citizen
12/8/76, Jean M. Smith, private citizen
12/8/76, Mr. & Mrs. A. A. Huebner, private citizens
12/9/76, Charlene Sawl, private citizen
12/9/76, Kern Sawl, private citizen

12/9/76, Kenneth R. Hull, private citizen
12/9/76, Dan Austin, Jr., private citizen
12/9/76, Carol Smith, private citizen
12/9/76, Mrs. V. L. Blakely, private citizen
12/9/76, Ted & Marie Chadwick, private citizens
12/9/76, Wilda Ferguson, private citizen
12/9/76, Christy Garritson-Mariner, private citizen
12/10/76, Richard M. Chasur, private citizen
12/10/76, LaRee Looney, private citizen
12/10/76, Steve Hostetler, private citizen
12/10/76, James Hunt, private citizen
12/10/76, Mr. & Mrs. Ronald Boehm, private citizens
12/11/76, Bruce Gordon, private citizen
12/11/76, Mrs. D. L. Swingley, private citizen
12/11/76, Harland O. & Norma L. Benson, private citizens
12/12/76, Rev. Gregory McAllister, private citizen
12/12/76, Jill Young, private citizen
12/12/76, Michael Brochu, private citizen
12/13/76, Wm. M. Dugas, private citizen
12/13/76, James R. Roaf & Celia M. Roaf, private citizens
12/13/76, Chris Boisuert, private citizen
12/13/76, James Whetzel, private citizen
12/13/76, Charles Wolfer, private citizen
12/13/76, Wm. Conway, private citizen
12/13/76, Marvin G. Pierce, private citizen
12/13/76, Lois E. Stone, private citizen
12/13/76, Gerald E. Raimille, private citizen
12/13/76, David R. Fritie, private citizen
12/13/76, Keith E. Murray, private citizen
12/13/76, Diane E. Lovelace, private citizen
12/13/76, Hubert Mapes, private citizen
12/13/76, Harry B. Goff, private citizen
12/13/76, K. Rasmussen, private citizen
12/13/76, Betty J. Maytel, private citizen
12/13/76, Wm. & Judith Waterbury, private citizens
12/13/76, Barbara J. Whetzel, private citizen
12/13/76, Vickey L. Ellis, private citizen
12/13/76, James C. Heilman, private citizen
12/13/76, Dustin E. Kinkaid, private citizen
12/13/76, Robin & Meg Cernak, private citizens
12/13/76, Ronald & Diana Lizotte, private citizens
12/13/76, Cheri K. Smith, private citizen
12/13/76, Ervin Whetzel, private citizen
12/17/76, Mary L. Rhoads, private citizen



ROBERT W. STRAUB
GOVERNOR

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

NOV 10 1976

WATER RESOURCES DEPARTMENT

OFFICE OF THE DIRECTOR

1178 CHEMEKETA STREET N.E. • SALEM, OREGON • 97310 • Phone 378-3739

November 9, 1976

Loren Kramer, Director
Department of Environmental
Quality
1234 S. W. Morrison Street
Portland, OR 97205

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

NOV 12 1976

WATER QUALITY CONTROL

Dear Mr. Kramer:

We have finally had an opportunity to review the proposed Basin Water Quality Management Plans. It is obvious that your staff devoted a great deal of time to the preparation of the proposed documents and the accompanying texts.

The Water Resources Department has no specific objections to the basin plans as proposed. We do, however, have some concerns with respect to the proposed water quality standards and the possible impacts on future reservoirs in all areas of the state.

We first became aware of the implications water quality standards have on reservoirs during the discussion of Elk Creek Dam in the Rogue Basin. In terms of turbidity, similar assertions are now being made in conjunction with the Days Creek project. If, in fact, such standards apply to federal water development projects, the application must also include a better way to provide recognition of the broad range of associated public needs served by the projects.

In the Umpqua Basin, the proposed addendum appears both reasonable and supportable. Existing water problems and projected water needs virtually dictate some form of water storage in the South Umpqua drainage. The Water Resources Department recognizes that the plans for Days Creek Dam may be altered requiring further modification of water quality standards or that information developed at a later date may change the state perspective on the project. However, without the proposed addendum, federal funding to continue studies of the water-related problems in the basin may well be jeopardized.

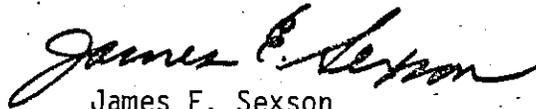
In the Willamette Basin, waste loadings appear to be predicated on the 6,000 cfs minimum flow in Salem. While this generally has been an operational goal of the existing

Loren Kramer, Director
Department of Environmental
Quality
November 9, 1976
Page 2

project system, the necessary releases are by no means assured. There is a substantial degree of operational flexibility because many projected water demands are still developing. Assurance of firm flows of this magnitude in future years would entail re-authorization of the existing projects and likely a contractual arrangement to purchase stored water. This may well be an area our departments may wish to discuss in the future.

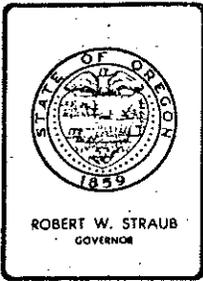
My staff also has a number of comments on the text portion of the basin plans which we can send along if desired.

Sincerely,

A handwritten signature in cursive script, appearing to read "James E. Sexson".

James E. Sexson
Director

JES/TEK:slv



Department of Fish and Wildlife

OFFICE OF THE DIRECTOR

1634 S.W. ALDER STREET, PORTLAND, OREGON 97208

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

NOV 15 1976

November 10, 1976

OFFICE OF THE DIRECTOR

Mr. Loren Kramer, Director
Department of Environmental Quality
1234 S.W. Morrison Street
Portland, Oregon 97205

Dear Mr. Kramer:

Thank you for your letter dated October 28, 1976, which requested clarification concerning our position on your Proposed Water Quality Management Plan for the Umpqua River Basin. Our staffs have corresponded previously on several occasions regarding this plan particularly the proposed turbidity standard for the South Umpqua River below Days Creek Dam.

The purpose of our October 12 letter was to pass on to DEQ our review comments that the South Umpqua turbidity standard as proposed would on some occasions be exceeded. One of your staff members then called asking how we would propose to resolve this situation. Our October 15 letter of response requested that DEQ delay recommendation of a standard pending further study by staff to resolve the discrepancy between the proposed standard and projected turbidity levels that recent data from the Corps of Engineers indicates will occur during some periods in some years.

In answer to the questions posed on page two of your letter:

No. 1. Our October 15 staff letter was not a department position, but as stated above a request for more time before adoption of the proposed new standard so that modifications could be developed by the staff, which might help offset administrative problems in the future.

No. 2. Our department continues its earlier support of the Days Creek project. We recognize, however, that turbidity levels in the reservoir and in the stream below will reduce the projected fishery resource benefits, and have advised the Corps.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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NOV 15 1976

WATER QUALITY CONTROL

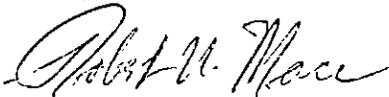
In our opinion, the Days Creek project will provide fish benefits from seasonal flow management. Although these benefits will be somewhat reduced by the turbidity problem, there will still be a net gain in fish habitat and production that the department would like to see realized.

It appears to us that judgment must be made at this point, while standards are being considered, whether it is best to set a strict standard and have difficult-to-control factors cause violation, or to set looser standards and thereby avoid administrative decisions on the part of the DEQ regarding civil penalty action in case of violations.

Adoption of a strict standard would have the advantage of providing a target to shoot for in the future. In this regard, it may someday become technically feasible to meet a strict standard through development of an intensive watershed management plan. The nitrogen standard on the Columbia River is an example of this approach. Adoption of a strict standard for turbidity for the South Umpqua would help control other sources of turbidity which have no compensatory benefit.

We believe it is the charge of the DEQ to resolve the apparent conflict which has developed concerning this matter. Should you require further information from us, please let me know.

Sincerely



ROBERT U. MACE
DEPUTY DIRECTOR

cc Water Resources Department, James E. Sexson
National Marine Fisheries Service
Portland District Corps of Engineers
U.S. Fish and Wildlife Service



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Division of Ecological Services
Portland Field Office
727 N.E. 24th Avenue
Portland, Oregon 97232

Reference: ES

November 16, 1976

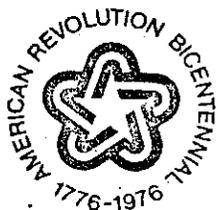
Mr. Loren Kramer, Director
Department of Environmental Quality
1234 S.W. Morrison
Portland, Oregon 97205

Dear Mr. Kramer:

In an October 15, 1976 letter to you regarding the proposed water quality plans for the State of Oregon, we informed you that it was our understanding an addendum to the Umpqua River Basin Water Quality Management Plan had been prepared, and we requested the option of future comment. Subsequently, a copy of the addendum was obtained, and we now have some concerns and suggestions to express.

The purpose of the addendum is to revise the proposed water quality management plan for the Umpqua Basin to allow construction and operation of the proposed Days Creek Dam and Reservoir Project. Quite frankly, we are disturbed with the proposed standards and the possible implications which may arise from the proposed changes. In addition, proposing these revisions prior to completion of the forthcoming 208 program standards appears untimely. Whenever a set of guidelines or standards are modified to conform to a specific activity, the assumption is usually made that the activity complies with the new requirements. According to data available to us, the Days Creek Project may not fulfill such an assumption.

The Corps has been studying potential reservoir temperatures and turbidities for this project through the use of a mathematical model, and the information generated so far shows that even the modified State water quality standards included in the addendum would not be met. There have been questions as to the reliability of some of the water quality data because of a lack of model verification, and because the degree of accuracy of the model has not been determined. It would seem, in our view, that because of these uncertainties, adoption of any changes in water quality standards to accommodate turbidity levels associated with Days Creek project would not be appropriate and, in fact, may be still too restrictive.



State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

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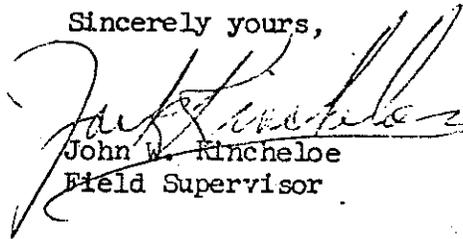
NOV 17 1976

WATER QUALITY CONTROL

We believe that prior to approval of any project which would overreach existing water quality standards, every effort should be directed toward project compliance rather than relaxation of standards. The overall objective should be maintenance and improvement in water quality, and proposals which require revisions in water quality criteria should be carefully scrutinized. Total watershed management including regulation of timber harvesting, road construction, and land use is viewed as an invaluable tool for meeting this water quality objective. The eventual conclusion may be that rescoping or relocation of the proposed project is necessary. Under some circumstances, when all viable alternatives have been exhausted and all precautions have been utilized to reduce degradation, perhaps existing State standards could be modified when public benefits are overriding and the standards would not be significantly exceeded. It is our belief that the proposed Days Creek project has not as yet reached these stages.

We appreciate the opportunity to comment on the addendum and hope that our suggestions will aid in development of the Umpqua River Basin Water Quality Management Plan. If you have any questions do not hesitate to call.

Sincerely yours,



John W. Kincheloe
Field Supervisor



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Environmental & Technical Services Division
P. O. Box 4332, Portland, Oregon 97208

November 17, 1976

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

NOV 19 1976

Director
Department of Environmental Quality
1234 S.W. Morrison Street
Portland, Oregon 97205

OFFICE OF THE DIRECTOR

Dear Sir:

The National Marine Fisheries Service recently reviewed the "Addendum to Proposed Water Quality Management Plan for Umpqua River Basin" which specified allowable water turbidity levels in the South Umpqua River. We also received a copy of the Oregon Department of Fish and Wildlife's November 10, 1976, letter to Director Kramer concerning the turbidity guidelines. We support the Department of Fish and Wildlife's recommendation for a strict turbidity standard on the South Umpqua River for the reasons expressed in their letter.

The WESTEX computer model was utilized by the Corps of Engineers to predict outflow turbidities from the proposed Days Creek Reservoir. This model, while a great advancement over previous predictive methodologies, has yet to be verified to determine its accuracy. We believe the model results have a major deficiency in that the settling rates of suspended sediments are only roughly estimated without adequate supportive field data.

We have encouraged the Corps to expand water quality studies at Lost Creek Reservoir to include verification of the turbidity model. Until this verification and settling rates of South Umpqua soils have been determined, we recommend that water turbidity standards not be based on the WESTEX model results. Should you have any questions, please don't hesitate to contact us.

Sincerely,

John S. Hodges
Fred Cleaver
Chief

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

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NOV 19 1976

WATER QUALITY CONTROL



Marquess & Associates, Inc. --- CONSULTING ENGINEERS

TELEPHONE: (503) 772-7115

12 GOLDY BUILDING
107 EAST MAIN STREET
MEDFORD, OREGON 97501

December 3, 1976

Mr. Glen D. Carter
Oregon Department of Environmental Quality
1234 S. W. Morrison Street
Portland, Oregon 97205

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
DEC 6 1976

Re: State-Wide Water Quality Management Plan
December, 1976

WATER QUALITY CONTROL

Dear Mr. Carter:

The following testimony is being submitted for your consideration during the public hearing on December 20, 1976.

Reference is made to Volume I, Section IX - Rogue Basin.

Re: Paragraph A. Beneficial Water Uses to be Protected, page 61:

Comment: An "x" should be marked under the column heading "Bear Creek Main Stem", for Public Domestic Water Supply and for Private Domestic Water Supply.

Re: Paragraph B.1.e.3) - page 64

Comment: on the second line, strike out "and Bear Creek".

Re: Paragraph C.2.a. Industrial Wastes - page 70

Comment: Use same BOD and SS criteria as used for Sewage Waste, paragraph C.1.a on page 69.

The reason for the above comments is that the City of Talent is going to use Bear Creek as a raw water supply source for a water treatment plant to be constructed during 1977-1978. A grant offer from the Economic Development Administration has been accepted by the City of Talent to finance the construction of this project.

In addition, a greenway park system along Bear Creek is proposed by the City of Medford and Jackson County. Part of the park system has been constructed in Medford.

It is essential for the health and safety of the people in the Bear Creek valley, and especially for the City of Talent, that the water quality in Bear Creek be managed to protect its beneficial use as a Public Domestic Water Supply.

Mr. Glen D. Carter
page 2

December 3, 1976

Thank you for your cooperation.

Very truly yours,

MARQUESS & ASSOCIATES, INC.



Clifford B. Shaw, P. E.

CBS:ds

cc: City of Talent
John R. LaRiviere, Water Quality Specialist, Jackson County Planning Dept.
Richard T. Howsley, Executive Director, RVCOG



PUBLIC WORKS DEPARTMENT

CITY OF MEDFORD
MEDFORD, OREGON 97501

TELEPHONE: (503) 776-7485

December 3, 1976

Oregon Department of Environmental Quality
1234 S.W. Morrison Street
Portland, Oregon 97205

Subject: Volume II, Statewide Water Quality Management Plan
December 1976

Gentlemen:

The estimate to expand the Medford Sewage Treatment Plant as shown in Table B, Page 39, was not corrected to reflect the input of our May 3, 1976, letter showing the cost to be in excess of \$8,000,000 at an Engineering News Record cost index of 2000 plus costs for infiltration-inflow analysis and systems correction program. Total project cost may exceed \$12,000,000 in our grant application if a 10/10 standard must be achieved.

Please review the last paragraph of Page 2 of our May 3, 1976, letter for further information.

Yours very truly,

Duane Scroggins
Public Works Director

ahf

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
DEC 9 1976

WATER QUALITY CONTROL



PUBLIC WORKS DEPARTMENT

CITY OF MEDFORD
MEDFORD, OREGON 97501

TELEPHONE: (503) 776-7485

December 6, 1976

Department of Environmental Quality
1234 S.W. Morrison Street
Portland, Oregon 97205

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
DEC 9 1976

WATER QUALITY CONTROL

Subject: Volume I, Statewide Water Quality Management Plan - December, 1976

Gentlemen:

With this letter, we formally file our objections to certain standards that, if rigidly adhered to, could cost the residents of Bear Creek Valley dearly with absolutely no increase in Rogue River water quality as follows:

Page 65, Item 4-1 - The standard sets a value judgement that will vary with individuals. Our experience causes us to be concerned with such value judgements placed in the hands of technicians and request this standard be deleted or qualified.

Page 67, Item 3 - literally interpreted says that zero dissolved chemical substances may be deposited in the receiving stream where the substances as specified in preceding paragraph are exceeded by the natural water quality of the receiving stream. That may be technically impossible.

Page 67, Item 4 - second sentence, strike "except those standards relating to aesthetic conditions".

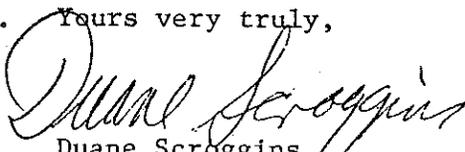
Page 69, Item 1 - Sewage waste. We must again object to the academic imposition of a 10-10 treatment standard as there may be more cost effective solutions available. Our experience indicates that when such a standard is set, the DEQ generally establishes enough road blocks and red tape to any other standard to make that other standard impossible to achieve. Land disposal on 800 acres of City owned land of waste treated to a 40-40 standard is a real possibility in Medford.

The imposition of an academically intriguing 10-10 standard does not speak to the issue of water quality. We request again that you establish an effluent standard based upon maximum pounds of waste constituents that can be delivered to the receiving stream without adversely affecting that stream.

Page 69, Item 1d - Sets a "double" treatment standard. Establishing coliform bacterial count criterion on Page 64, Item e is more acceptable.

Page 70, Item a - Why not require 10-10 standard here also?

Yours very truly,


Duane Scroggins
Public Works Director

ahf

December 10, 1976

Thor Mork
Box 6111 Wakonda Road
Waldport, Oregon 97394

Dear Mr. Mork:

In response to your letter of December 8, 1976, enclosed is a copy of the revised proposed State-wide Water Quality Management Plan for Oregon.

Sincerely,

WILLIAM H. YOUNG
Director

Glen D. Carter, Supervisor
Water Quality Program
Development Section

GDC:elk

Department of Environmental Quality
1234 SW Morrison Street, Portland, Oregon
Attention: Glen Carter, water quality supervisor

Dear Mr. Carter:

According to an article in Newport News-Times of September 28, 1976, DEQ has a proposed set of water quality standards. Because I did not know about the meeting you held in Newport late in September, I do not have a copy of the plan. Perhaps by now you have the revised plan.

Please send me a copy of the proposed water quality plan and, if completed, the final draft or water quality regulation.

The article does not make it clear whether your plan sets standards for ground water or for drinking or domestic water.

Mr. Dobey is quoted as saying, "we're going to test every house. The County would be assisted by DEQ personnel."

As you perhaps know, I intend to contest your singling out Southwest Lincoln County for "testing every house". I believe it is unconstitutional invasion of privacy. You do not have any laboratory data to indicate that SW Lincoln County differs from other areas in the County; moreover, you do not have any laboratory data to indicate that Lincoln County differs from any other coastal county in respect of ground water contamination. Hence, the proposed testing program is a fishing expedition.

You are also quoted as saying that you would find out the status of the proposed SW Lincoln County sewer and would report to the Board. I wish that you would also report to the home owners in the District because the Board does not communicate with a majority of the home owners in the District. I have been trying for seven months to get a look at the District records but to no avail.

The News-Times reporter states that "The proposal (for sewers) has been stalled by an environmental impact statement required by the federal Environmental Protection Agency before EPA will grant funds to HELP CORRECT THE DISTRICT'S SEWAGE PROBLEMS". Note that the News-Times declares that the District has a sewer problem, so why test?

And you are quoted, "This plan will give you some guidance as to what you should expect to have in waste treatment". Therefore it appears that the plan has to do with waste water treatment and disposal.

Because I am the spokesman for the opposition to any testing that is not part of a statewide plan or, at least, a whole-coast plan, please furnish me with a complete set of proposed and finalized plans.

Let me reiterate that my opposition stems to a large degree from the secrecy and off-the-records communication between the sewer promoters and personnel of the Environmental Quality Department. Another cause of opposition is that DEQ has too many persons giving policy statements which are distorted and presented as facts by the news media. In my survey of the homes in the district, I was told all sorts of weird rulings by DEQ personnel. DEQ ought to limit its policy pronouncements to printed statements which are available to all affected property owners. Your plans and standards would get greater acceptance if all of us had your decisions instead of the distorted interpretations of people with special interests.

DEPARTMENT OF ENVIRONMENTAL QUALITY

December 8 1976

RECEIVED

DEC 8 1976

Thor Mork
Box 6111, Wakonda Road
Waldport, Oregon 97394

WATER QUALITY CONTROL

WESTERN KRAFT PAPER GROUP
WILLAMETTE INDUSTRIES, INC.



Albany Mill Division
Post Office Box 339

Albany, Oregon 97321

Telephone (503) 926-2281

December 9, 1976

Mr. Glen Carter
Department of Environmental Quality
1234 S. W. Morrison Street
Portland, Oregon

Dear Mr. Carter:

Attached is our comment for change to the Proposed
Water Quality Management Plan for the Willamette River Basin.

Sincerely,

WESTERN KRAFT PAPER GROUP

E. J. Kirkpatrick
E. J. Kirkpatrick
Environmental Supervisor

EJK:bb

Attachment

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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DEC 10 1976

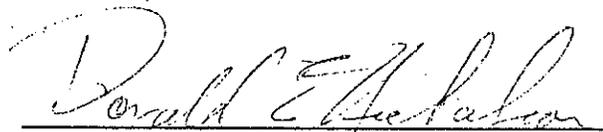
WATER QUALITY CONTROL

TESTIMONY FOR
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE-WIDE WATER QUALITY MANAGEMENT PLAN

WILLAMETTE RIVER BASIN
FROM WESTERN KRAFT PAPER GROUP
ALBANY, OREGON

December 8, 1976

The proposed water quality plan for the Willamette River Basin makes reference to low stream flow period being approximately May 1 to October 31. The beginning date is in conflict with present municipal and industrial waste permits which show the low flow period extending from June 1 to October 31. This apparent discrepancy should be corrected before the State-wide Water Management Plan is adopted by the Environmental Quality Commission



Donald E. Nicholson
Resident Manager

WESTERN KRAFT PAPER GROUP
ALBANY DIVISION

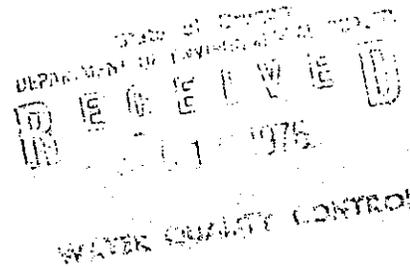
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DEPARTMENT OF ENVIRONMENTAL QUALITY
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DEC 14 1976

WATER QUALITY CONTROL

CrownZellerbach
Environmental Services

December 9, 1976

Mr. Glen D. Carter
State of Oregon
Department of Environmental Quality
1234 S. W. Morrison Street
Portland, Oregon 97205



Dear Glen:

We are submitting comments on the proposed State-Wide Water Quality Management Plan for Oregon.

Volume I, Page 5, III A. This policy would limit expansion at an existing site. Such a limitation is not desirable either from an economic or environmental point of view. Full use of existing industrial locations will concentrate industry and reduce the pressure to expand to the remaining unoccupied areas of river shoreline. Economically, an expansion at an existing site can utilize many of the existing services already there. In addition, it provides for more stability and justification to retain the facility in production. Any expansion should meet Federal guidelines on effluent discharge and should not violate water quality standards but it should be given these allowances.

Page 13. Salmonid spawning is given as a beneficial use of estuary and adjacent marine waters as well as the Columbia River 0 to 86 RM. I do not believe that salmon spawn in such areas. Inclusion of this parameter as a beneficial use results in an abnormally high dissolved oxygen requirement which is really not necessary.

Page 14, Item 3. Dissolved Oxygen - The 90% saturation level does not seem to be in agreement with statements on Page 9 of Volume III, where a 75% D.O. saturation limit is discussed.

Page 15, b., 1 & 2. A "no measurable" increase is proposed for temperature under certain conditions. This term should be defined. Washington Water Quality Standards define it as "measurable (0.5°F) increase."

Page 15, b., 3. A "no significant increase" is stipulated for marine and estuarine waters. Again, there should be an understanding of what is meant here.

Page 19, Table. Total dissolved solids limits are included. This does not agree with Volume III, Page 10, where it states that such limits have been dropped. I must still disagree with the inclusion of the entire list since there is little data on the natural amounts present and because the numbers are lower than those in the National Interim Drinking Water Regulations, Federal Register, December 24, 1975, Page 59570, § 141.11. They are also generally lower than those in the so-called green and blue books. Phenols, in particular are not toxic at the 0.001 ppm level.

Page 21, 5. The Environmental Protection Agency (EPA) publishes a list of approved procedures from time to time. The most recent up-date was December 1, 1976, Federal Register 41, Page 52780-52786. This regulation refers to other sources such as American Society of Testing Materials (ASTM), EPA and Geological Survey procedures. It would be appropriate to include procedures approved in this source as being acceptable.

Page 22, a. The requirement for 20/20 design criteria on the main stem of the Columbia, is overly restrictive. There is question from a technical point of view as to the real necessity of any treatment for municipal or even large industrial discharges in this area. The use of water quality limitations is not justified for the higher treatment requirement. The volume of water present is so large that it is virtually impossible to detect any changes after discharge through an adequate diffuser with allowance for a reasonable dilution zone.

Page 23, 2., a. There should be reference to association with a fecal source for the bacterial organism disinfection requirement. It could read, effective disinfection where bacterial organisms associated with a fecal source are present,

Page 24, e. It is not always possible to provide positive protection to prevent bypassing of industrial wastes to public waters. Power failures can shut an entire mill down and spills occur. Sometimes it may be necessary for safety reasons to bypass or it may be necessary to bypass to prevent destruction of equipment.

December 9, 1976

Page 73. The uses of the river for boating, fishing and water contact recreation are very legitimate uses but we have at times had problems with our barge traffic. It should be emphasized that persons engaged in such activities obey the Coast Guard rules in all areas, not just the Portland Harbor. This is particularly evident at the West Linn "hog lines" during the spring run.

Page 79, k. Sleek, I believe, should be slick.

Page 81, a. There should be some allowance for discussion of the standards for aesthetic conditions. A typical discharge may cause a "boil." In the immediate area there is thus a turbulence and possibly a discoloration, but only in the "boil" area. Such phenomena could be aesthetically displeasing to some people but would not be to most others, considering the small area involved. This is not really sufficient justification for major changes in an outfall line.

These comments should also be applied to the corresponding paragraphs in the other River Basin sections. The only exception being the comment for Page 73.

Volume II, Page 3. The apparent policy of classifying all the state's streams as water quality limited is not correct. This limitation is usually justified for reasons such as low flow, turbidity, coliforms or a nebulous "protection of existing quality." It is then used as the justification for very tight limits on other components of point sources while most of the reasons given are results of non-point problems. In many cases, the limits are much tighter than needed. The main stem of the Columbia River is stated to be limited by temperature, gas supersaturation and protection of existing water quality. Municipal plants are given a 20/20 standard which will not affect the first two criteria at all. The existing quality also will not be affected since the dilution available is so great that it is not possible to detect adverse changes outside of a dilution zone where an adequate diffuser is used.

Thank you for the opportunity to comment.

Very truly yours,



Supervisor,
Water Programs

J. F. CORMACK/jd

cc: Dr. H. R. Amberg - ESD



GREATER MEDFORD Chamber of Commerce

304 South Central / Medford, Oregon 97501
Telephone (503) 772-6293

December 10, 1976

Glen Carter
Oregon Environmental Quality Commission
1234 S.W. Morrison Street
Portland, OR 97205

Dear Mr. Carter:

The draft of the Statewide Water Quality Management Plan has been reviewed by this Chamber. There are many words and phrases that are not definite or understandable. There are also questions regarding the implementation of the plan and the flexibility of the suggested regulations.

For the above reasons, it is necessary for us to comment only on our long-standing policy regarding the water resources of the Rogue River Basin, with the hope that they will be considered in the adoption of the plan.

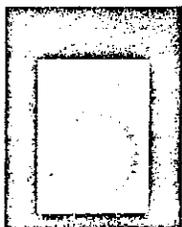
We recognize the benefits of controlling the high winter flows of the Rogue and the tributaries of the Rogue basin that could provide for the cooler and enhanced summer flows required for improving the fishery, the water quality, recreational needs and the additional irrigation that a substantial part of our agricultural economy needs.

The regulations adopted should not interfere with the developments necessary to meet these demands.

Sincerely yours,

Jack A. Hoffbuhr
Jack A. Hoffbuhr
President

JAH/kje



ACCREDITED
CHAMBER OF COMMERCE
CHAMBER OF COMMERCE
OF THE UNITED STATES

WATER RESOURCES

The beneficial use of water has become a composite problem, for the solution of which individuals, industry and the local, state and federal governments should wisely expend funds upon carefully planned projects, provided they stand the test of financial feasibility after all benefits, costs and damages have been fully weighted.

Project Justification

Proposals involving the expenditure of public funds for water resource projects should include reliable evidence that:

1. The project will serve a demonstrated need involving the public interest.
2. The value, or benefits, to be created by this project are in excess of the cost, when compared on average annual basis.
3. The reimbursable portions of the project are financially feasible on the basis of sound and established criteria.
4. The cost will be distributed with due regard to the relative benefits within the respective areas of responsibility.

Flood Control

The aim of flood control planning should be to reduce flood damage to the greatest extent that it is economically feasible. The various measures, both upstream and downstream, capable of reducing flood flows and of protecting against flood damage should be used to the fullest extent economically justified, and should be completely correlated.

Expenditures for flood protection measures should aim to protect the greatest number of lives and the most property with a given amount of public funds.

Greater Medford Chamber of Commerce
Policy Manual
Adopted 11/6/75



DEPARTMENT OF THE ARMY
PORTLAND DISTRICT, CORPS OF ENGINEERS
P. O. BOX 2946
PORTLAND, OREGON 97208

REPLY TO
ATTENTION OF:

NPPEN-PL-6

10 December 1976

Mr. Glen D. Carter
Oregon Department of
Environmental Quality
1234 S.W. Morrison St.
Portland, Oregon 97205

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
DEC 13 1976

WATER QUALITY CONTROL

Dear Mr. Carter:

We have reviewed portions of the state-wide water quality management plan proposed by the Oregon Department of Environmental Quality for adoption as administrative rules. Emphasis was placed on reviewing proposed water quality standards for the Rogue Basin - especially standards for turbidity - because of our concern with the Operation and Maintenance of the Rogue Projects. We will submit additional comments at a later date.

Our comments concerning the proposed turbidity standard are as follows: The standard states that "no more than a 10 percent cumulative increase in natural stream turbidities shall be allowed except for certain specifically limited duration activities which may be specifically authorized by D.E.Q. under such conditions as it may prescribe and which are necessary to accomodate essential dredging, construction, or other legitimate uses or activities where turbidities in excess of this standard are unavoidable." One should note the following about this regulation: first, there appears to be no ecological rationale on which to base this rather stringent water quality standard. Like many water quality standards, this standard leaves one with the uncertain feeling that it may be unnecessarily too strict and unjustified in view of (1) the costs required to meet it and (2) the environmental quality it is supposed to protect.

10 December 1976

Mr. Glen D. Carter

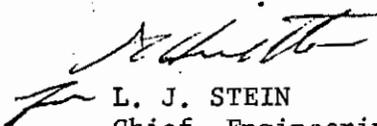
Secondly, the regulation uses as a baseline expression the term "natural stream turbidities" which could have several interpretations, and could be disputed by those faced with water quality violations due to turbidity increases. The "natural stream turbidity" on which the 10 percent cumulative increase is based could be interpreted by some to mean the turbidity of headwater reaches of the Rogue River where, essentially, pristine, culturally-undisturbed conditions prevail. There, low-flow turbidities may seldom exceed 1.0 J.T.U. Further downstream, it would be logical to consider existing turbidities as ones which are just as unnatural as those produced as the result of a dam. "Natural" conditions began to disappear when man started to log and develop the watershed.

Third, cumulative increases in turbidity downstream may not be accurately and precisely measured in view of methods and instrumentation currently available to determine turbidity. D.E.Q. normally uses a Hach-manufactured instrument which is thought by many water quality specialists to lack sensitivity when readings fall below 5.0 J.T.U. Some water chemists believe that turbidities less than 5.0 J.T.U. should be expressed as such (i.e., less than 5.0 J.T.U.) rather than as a specific value (say 1.3 or 3.7 J.T.U., for example). A specific value (i.e., one within the 0-5 J.T.U. range) may imply a high degree of precision and accuracy which, in fact, is not within the instrument's capability. Thus, if "natural" turbidity is found to be 3.0 J.T.U., it may be unrealistic and unreasonable to regard a downstream reading of say 3.4 J.T.U. as, a true violation of the 10 percent cumulative standard.

Furthermore, one can question the reliability and representativeness of water samples collected at one or a few points in the cross sectional area of the stream channel. Turbidity data may be invalidated by the fact that suspended solids (causing turbidity) are not uniformly distributed along the vertical and horizontal profiles of the stream channel.

Moreover, a measured increase in turbidity below a dam may not be due to water discharged from the dam but rather to erosion and transport processes occurring between the dam and the downstream monitoring station. In this case, then, it would be necessary to collect and analyze release water before it passed downstream. On the other hand, some of the suspended material in release water could settle out or be precipitated downstream thereby reducing the turbidity.

Sincerely,



L. J. STEIN
Chief, Engineering Division

Rogue Basin Flood Control & Water Resources Association

- 288 ERIE STREET -
- MEDFORD, OREGON 97501 -

14195 Agate Rd., Eagle Point, Oregon 97524

December 10, 1976

Oregon Environmental Quality Commission
1234 Morrison Street, S.W., Portland, Oregon 97205

Attention Mr. Glen Carter

Subject: Statewide Water Quality Management Plan.

Dear Commissioners:

We write to you in regard to the proposed turbidity regulation as it will apply to Rogue Basin waters.

Many streams in the Rogue Basin have low Summer flows. Associated with such flows is lower than desirable water quality with a resultant adverse affect on beneficial uses.

In a number of cases, the low Summer flows would be correctable by Winter storage which would permit the release of enhancement flows during the low flow period.

We understand that stored Winter water, when released during the low flow period, may be less clear than natural flows at the release point at a similar point in time.

We have read the proposed turbidity regulation and are unable to determine its implications for future improvement of overall water quality through enhancement flows.

It is our hope that the regulation which is adopted will not foreclose the improvement of overall stream quality through storage and low flow releases. We ask that the adopted regulation be sufficiently flexible so as to permit an overall evaluation considering the various aspects of water quality and the downstream miles affected. In other words, in our view, a decrease in clarity may be an acceptable tradeoff for overall water quality improvement.

We thank you for this opportunity to comment on the proposed regulations.

Yours truly,

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

DEC 14 1976

Wm. L. Jess
Wm. L. Jess,
Chairman

WATER QUALITY CONTROL



City of Ashland

ASHLAND, OREGON
97520

December 13, 1976

Mr. Glen D. Carter
Oregon Department of Environmental Quality
1234 SW Morrison Street
Portland, OR 97205

Dear Mr. Carter:

The City of Ashland would like to make the following comments concerning the State-wide Water Quality Management Plan.

1. Under the discharge standards for waters of the Rogue River Basin item (1), offensive aesthetic conditions, is too subjective and will be very difficult to enforce uniformly.
2. Effluent BOD concentrations should be based upon pounds per time unit rather than upon a dilution factor. Utilizing Ashland's present conditions, the allowable discharge would be 0.6 mg/l which is totally unacceptable in our opinion.
3. The temperature increase restrictions are particularly distressing in light of the summer flows in both Ashland Creek and Emigrant Creek. It would seem advisable to allow for extenuating circumstances rather than proposing such a strict regulation without a chance for variance.

Sincerely,

A handwritten signature in cursive script that reads "Allen A. Alsing".

Allen A. Alsing, P.E.
Director of Public Works

A3/em

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
DEC 15 1976

WATER QUALITY CONTROL

COLUMBIA REGION ASSOCIATION of GOVERNMENTS
A JOINT AGENCY OF METROPOLITAN
CITIES AND COUNTIES

TERRY L. WALDELE, P.E.
CHIEF-PUBLIC FACILITIES SECTION
COMMUNITY DEVELOPMENT DIVISION

527 S.W. HALL
PORTLAND, OREGON 97201

221-1646
Area Code 503

December 15, 1976

Mr. Glen D. Carter
Oregon Department of
Environmental Quality
1234 S.W. Morrison Street
Portland, Oregon 97205

Dear Glen:

The Public Facilities staff of the Columbia Region Association of Governments has reviewed the three volumes of the Statewide Water Quality Management Plan dated December, 1976. During the process of our review of this document, questions were raised seriously affecting our ability to proceed in an orderly and efficient manner toward the completion of the Areawide Wastewater Management Plan under Section 208 of Public Law 92-500. The following is a list of the comments we have regarding these documents.

Volume I, Page 5

"III POLICIES AND GUIDELINES GENERALLY APPLICABLE TO ALL
BASINS

A. ...such that measurable future discharged waste loads from existing sources do not exceed presently allowed discharged loads..."

[Q] Is this intended to pertain to all basins or particularly the Willamette Basin? Specifically, is that section of the Columbia River (river mile 86 to 120) which is included in the Willamette Basin to be included under the regulations of this section?

Mr. Glen D. Carter
December 15, 1976
Page 2

[Q] If future regionalization of plants is proposed, will they be allowed to sum the discharge allocation for the existing plants or will the allowed discharge loads be reduced? If this varies with river segment or basin, then what is the policy for each basin and segment in the CRAG region?

Volume I, Page 9

"4. Where planning or design or construction of new or modified waste treatment and controls..."

[Q] Does this section consider planning to include planning pursuant to Section 208 of P.L. 92-500, Areawide Wastewater Management Planning?

Volume I, Page 74 (Willamette River Basin)

"2. No waste shall be discharged and no activities shall be conducted..."

[Q] How does DEQ plan to identify those responsible for violation in the Willamette Basin? (Example: Wastes or activities responsible for D.O. violation in Portland Harbor during low flow?)

Volume I, Page 86

"D. SPECIAL POLICIES AND GUIDELINES

...policy of the EQC to prohibit any further waste discharges..."

[Q] How does DEQ define further waste discharges?

Volume I, Page 98 (Sandy River Basin)

"C. MINIMUM DESIGN CRITERIA FOR TREATMENT AND CONTROL OF WASTES

f. More stringent waste treatment and control requirements may be imposed where special conditions may require."

[Q] It has been brought to our attention that some other minimum design criteria may be imposed for the upper Sandy River Basin, requiring no additional discharge to this area during low flow periods. If this is the case, this should be so stated so that our planning may reflect this intent. What is the intent of the above section in this regard?

Mr. Glen D. Carter
December 15, 1976
Page 3

Volume II, Pages 48, 49, 50 (Table B) (Willamette River Basin)

[Q] Is this the most updated priority list? If not, which has precedent?

Page 51 (Table C)

[Q] Why does this table list "none presently identified" when the tri-cities' regional plant and other future plant improvements are foreseeable by the year 1990?

It is our assumption that the Environmental Quality Commission will approve these documents as presented and, therefore, we are requesting official policy statements from the Department of Environmental Quality regarding our questions. Detailed policy statements concerning these questions are necessary to enable us to progress toward completion and implementation of our Areawide Management Plan in accordance with our contract with the U.S. Environmental Protection Agency.

Your timely response to this request will be greatly appreciated.

Yours truly,

Terry L. Waldele
208 Project Manager

TLW:ls
3:12-14

cc: Larry Rice

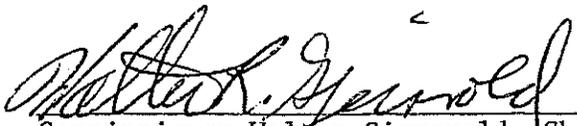
PUBLIC HEARING TESTIMONY
ON
PROPOSED WATER QUALITY MANAGEMENT PLAN
FOR THE
WILLAMETTE RIVER BASIN

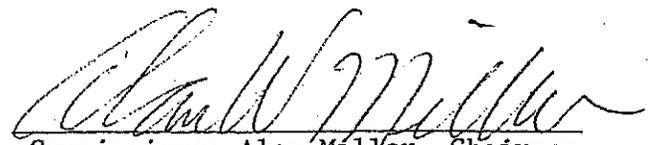
TO:

OREGON ENVIRONMENTAL QUALITY COMMISSION

FROM:

MID WILLAMETTE VALLEY COUNCIL OF GOVERNMENTS


Commissioner Walter Gjersvold, Chairman
Board of Directors
Mid Willamette Valley Council
of Governments


Commissioner Alan Miller, Chairman
Regional Planning Committee
Mid Willamette Valley Council
of Governments

DECEMBER 20, 1976

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
1.0	INTRODUCTION	1
2.0	DEQ'S PUBLIC INFORMATION POLICY	1
3.0	COMMENTS ON EPA'S REVIEW	3
4.0	RECOMMENDATIONS	4
5.0	MISCELLANEOUS TECHNICAL COMMENTS	5
5.1	Special Protection to North Santiam River	5
5.2	Incongruity of USGS and DEQ Assessments of the Willamette River	5
5.3	The Question of Equitability for Control of Point Sources	6
5.4	Reservoir Management	9
5.5	Water Quality Monitoring	10
5.6	Non-Point Source Pollution	10

1.0 INTRODUCTION

The Mid Willamette Valley Council of Governments (MWVCOG) through its Regional Planning Committee and its Section 208 Planning staff is contributing this testimony in order to make its concern public, regarding generally; the State-Wide Water Quality Management Plan, and in particular the Proposed Water Quality Management Plan for the Willamette River Basin.

The MWVCOG gave verbal and written testimony to the DEQ at the Willamette River Basin Plan hearing in Salem on September 30, 1976. The testimony at that hearing is included in Volume IV of the Statewide Water Quality Management Plan.

This verbal testimony is given to supplement our previous testimony of September 30th and to comment on DEQ's performance on recommended revisions to the Willamette River Plan since the September hearing. We have also included written testimony on miscellaneous technical topics that are too lengthy for verbal testimony.

We do not feel satisfied with the comprehensiveness of this testimony because we did not have the benefit of Volume IV while preparing this testimony. If Volume IV would have been available, rebuttals would have also been included for DEQ's responses.

2.0 DEQ'S PUBLIC INFORMATION POLICY

Our testimony on September 30, 1976 was critical of DEQ's procedural methodology in the number and timing of printed copies of the plan, and the number and location of public hearings. We stated then, and we still believe, the public should have every opportunity to participate to the fullest practicable extent in the policy development of this plan. Also, the public should be given sufficient time, appropriate explanatory documents, and educational public meetings in order to make public review significant and meaningful.

We stated previously that at least six weeks should be allowed for any agency, group or person to review a plan of this magnitude. This time factor is particularly critical for public agencies such as the MWVCOG. The MWVCOG operates on two distinct levels; policy groups, composed of elected officials and the staff. The tone and content of testimony for a plan of this magnitude is a policy decision. The staff merely implements the desires of the policy groups. This interaction of policy groups and staff is a time consuming process. As we previously stated, we believe six weeks is a minimum time. For the hearing on September 30th we had two weeks. For this hearing we obtained Volumes I, II and III approximately three weeks ago. When the drafting of this testimony was completed approximately one week ago, we still had not received Volume IV, which is the detailed DEQ response to our previous testimony.

We ask the Commission at this time: How can we or any interested public agency prepare a comprehensive testimony with these time constraints?

Our previous testimony recommended several changes to existing DEQ policy involving public information and involvement. We wish to repeat those recommendations and comment on DEQ's performance since September 30th.

The recommendations were:

1. The DEQ should adhere to the Goals and Guidelines of the Oregon 1973 Land Use Act (Senate Bill 100) concerning citizen involvement.
2. The DEQ should form a public task force for review during reconsideration of this Proposed Plan. The task force should have the authority to make recommendations to the DEQ during plan development and should report to the Environmental Quality Commission prior to final adoption regarding their interpretation of the adequacy of the DEQ program.
3. The DEQ should hold a public hearing in each of the major cities within the plan area.
4. The DEQ should carefully plan (hopefully with the assistance of a public task force) the number of printed copies available and the timing of their release so as to give sufficient time for effective public review.

The first two recommendations were based on goal subject number one of the Oregon Land Conservation and Development Commission, which was citizen involvement in the on-going land use planning process. We believe water quality management planning is directly related to land use planning in general, and the specific comprehensive land use plans of each city and county in the State of Oregon.

We refer the Commission to the complete text of goal subject number one, "Citizen Involvement" of the Land Conservation and Development Commission. However, the following excerpt is particularly relevant to our recommendations:

"The citizen involvement program shall involve a cross-section of affected citizens in all phases of the planning process. As a component, the program for citizen involvement shall include an officially recognized citizen advisory committee or committees broadly representative of geographic areas and interests related to land use and land use decisions. Citizen advisory committee members shall be selected by an open, well-publicized public process.

The citizen advisory committee shall be responsible for: assisting the governing body with the development of a program that promotes and enhances citizen involvement in land use planning, assisting in the implementation of the citizen involvement program and evaluating the process being used for citizen involvement."

The DEQ, of course, did not adopt our recommendations. We still believe a public advisory committee or a public task force would greatly improve the present DEQ public information policy.

We believe the DEQ was in error in holding only one public hearing for the Willamette River Basin Plan. Additional hearings should have been held in

Portland and Eugene. The hearings should have been publicized in the news media in order to encourage verbal testimony from the general public. This State-Wide Water Quality Management Plan has great implications to all citizens of Oregon, but the general unawareness of the Plan's existence among private citizens is the result of a faulty public information process.

Our forth recommendation was concerned with the distribution of printed copies of the Plan. Again, DEQ has ignored our recommendation; we did not have the benefit of Volume IV while preparing this testimony. As previously stated, Volume IV is the detailed response of testimony given at the individual basin plan hearings. Obviously, since our first testimony was very comprehensive, further relevant testimony without the knowledge of DEQ's response is almost impossible.

In summary, we believe DEQ's present public information and involvement policy is extremely faulty and should be examined carefully by the Commission. We recommend the Commission adopt a coordinated citizen involvement system with the Land Conservation and Development Commission. Only in a coordinated effort can the best interests of the public be served.

3.0 COMMENTS ON EPA'S REVIEW

The EPA in a letter dated November 23, 1976 from Robert S. Burd, Director, Water Division of Region X, reported to the DEQ the results of their review of the State-Wide Water Quality Mangement Plan. The review stated the Text and Appendices A through H should be adopted in order to meet EPA requirements. The EPA was critical of the DEQ's request for adoption by the Commission of just Appendix A.

We fully agree with EPA's analysis. The adoption of the Text and all Appendices are necessary for a river quality assessment and a consideration of alternative strategies which is necessary for this type of management plan.

By recommending adoption of just Appendix A as Oregon Administrative Rules, we are concerned about the logic of DEQ recommending a plan to the Commission that does not have the approval of the EPA. It appears to place the Commission in a dilemma with basically only three options:

1. Adopt the Plan as recommended by DEQ in the face of EPA's procedural disapproval; and technical and policy disapproval by several testifiers at this hearing;
2. Adopt the Text and Appendix A through H which would be in conflict with the published Plan, dated December 1976, and the public hearing notice; or
3. Defer adoption until the DEQ has resolved the procedural; and/or technical and policy conflicts identified at this and previous hearings.

We recommend the third option. We believe major conflicts should be resolved prior to adoption by the EQC.

4.0 RECOMMENDATIONS

The following recommendations are based on our interest in water quality due to our involvement with Section 208 planning for Marion, Polk and Yamhill Counties. We believe the recommendations, incorporated in this plan, will be in the best interests of the public.

1. The Environmental Quality Commission (EQC) should defer adoption of this plan until it meets the requirements of U.S. PL 92-500 (Federal Water Pollution Control Act Amendments of 1972) as defined by the EPA.
2. The EQC should coordinate citizen involvement policy with the Land Conservation and Development Commission because of the strong relationship that exists between water quality planning and land use planning. The EQC should implement a citizen involvement policy prior to the adoption of this Water Quality Management Plan.
3. The waste load allocation system in this plan as presented by DEQ should be reviewed by a citizen advisory committee as to its equitability and its financial impact on the states economy. There are serious questions concerning the relative priority of controls for municipal wastes, direct discharge industry, ammonia discharges, food processing wastes treated at municipal plants and non-point source pollution from silviculture, agricultural and construction activities.
4. The Department of Environmental Quality (DEQ) should, in this basin plan, state its intentions to plan for the management of Willamette River Basin water quality in a comprehensive manner by considering tradeoffs between municipal and industrial point sources, all non-point source categories, and flow augmentation. The Department should then use the plan and the planning process as a rational means to gather the resources necessary to accomplish their intent.

5.0 MISCELLANEOUS TECHNICAL COMMENTS

The following comments are offered as a supplement to previous testimony given on September 30th. We do not feel satisfied with the comprehensiveness of this testimony because we did not have the benefit of Volume IV of this Plan. If we would have had Volume IV this section would have also included rebuttals, if necessary, of DEQ's response to our previous testimony. We reserve the right to submit the rebuttal at a later date, but we would have preferred to present the information verbally at this hearing.

5.1 Special Protection to the North Santiam River

Our September 30th testimony recommended the North Santiam River be included for special protection because of high existing water quality, and because the water is used for municipal water supplies and recreation.

The DEQ accepted this recommendation and added the North Santiam River Basin to Section XD, page 87 of Volume I. However, we believe the description as given is not sufficient. The City of Stayton is presently discharging municipal effluent to the North Santiam River. Also the North Santiam River below Stayton is not used for municipal water supplies. Therefore, we recommend the correct description of the subbasin for special control should read: North Santiam River Subbasin above the City of Stayton.

5.2 Incongruity of the USGS and DEQ Assessments of the Willamette River

A problem that has baffled us for the past year is the contradictory assessment analyses of the Willamette River by the Federal USGS and the Oregon DEQ.

The disagreement centers around the controllable type of pollution presently existing and projected to enter the River. The DEQ strategy is based primarily on controlling municipal waste discharges and are proposing in this plan to limit the concentrations of discharges to 10mg/l of BOD-5 and suspended solids. The USGS contends the River's dissolved oxygen is not sensitive to further reductions of BOD-5 but is very sensitive to ammonia discharges.

The Text, pages 32 through 34 of the Proposed Willamette River Basin Plan, discusses a water quality model of the Willamette River prepared by the U.S. Geological Survey. The study was critical of DEQ's strategy of regulating only point source, carbonaceous demand BOD discharges. The report concluded the "treatment of existing domestic waste sources to 10 mg/l each of BOD and suspended solids in the effluents would not improve river dissolved oxygen levels."

The USGS study determined that a reasonable course of action for dissolved oxygen control would be in the following order of priorities:

1. ammonia reduction
2. point source waste reduction
3. reduction of Portland Harbor benthic load
4. reduce background non-point source BOD levels

The comment was made by DEQ on page 33 (Text, Proposed Willamette River Basin Plan) that since 1974 the two main sources of ammonia discharges have been reduced substantially. The sources are Teledyne Wah Chang at Albany and Boise Cascade Corporation in Salem. We cannot substantiate this claim because NPDES permit conditions for ammonia discharges have remained unchanged for both plants. However, for Teledyne Wah Chang, the DEQ will require a permit change in July 1977 (page C-71) where ammonia discharges must be reduced from a present 2,000 pounds per day to 300 pounds per day. For Boise Cascade in Salem (Table 32, page C-82) the DEQ is proposing large reductions of BOD-5 and suspended solids by 1983, but nothing is stated about permit ammonia reductions.

This controversy makes us suspicious of DEQ's present strategy for dissolved oxygen control. Their present control strategy is based on an assumption that more efficient control of carbonaceous municipal wastes will be the most efficient controller of dissolved oxygen. The USGS contends that ammonia control would be the most efficient controller of dissolved oxygen and their contention is based on highly credible scientific assessments. Yet the DEQ is proposing in this Plan to control dissolved oxygen by municipal limitations and put ammonia control on the back burner by starting their own study of ammonia impacts.

In a recent publication the USGS stated:

"The benefits to be gained from this alternative (increased BOD removal at municipal treatment plants) would best be determined after ammonia loadings have been reduced to reasonable levels and the possibility of controlling the undetermined demand in Portland Harbor has been fully assessed."

Because the DEQ did not make a comprehensive river quality assessment or even a synoptic assessment of specific problems prior to the publishing of the Willamette Basin Plan it appears they should rely on other agencies to supplement their lack of preparation. It appears to us that the USGS studies are the most scientifically credible available and should be adopted by DEQ to interact with river basin planning.

5.3 The Question of Equitability for Control of Point Sources

The proposed municipal discharge limitation in the proposed Basin Plan is 10 mg/l for both BOD-5 and suspended solids on a monthly average during periods of low stream flow (summer discharges). The proposed limitation for periods of high stream flow (winter discharge) is secondary treatment for both BOD-5 and suspended solids on a monthly average. An additional limitation is required stream flow dilution of the treated effluent. This limitation states that BOD-5 concentrations in mg/l divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one. This means that if an effluent limitation of 10 mg/l is required there must be a dilution factor of 10.

We believe that for the majority of small cities in the MWV region, this effluent standard would impose an unnecessary financial burden because

of high operation and maintenance costs associated with sophisticated treatment systems. Moreover, the differential loading to the Willamette River between a 10 mg/l systems and a 30 mg/l system is insignificant compared to the total loading.

An example is the City of Dayton. The projected population at the year 2000 is 1949 and their present population is approximately 1300. With a 10 mg/l system they would presently discharge approximately 11 pounds per day of BOD-5 and in the year 2000 approximately 16 pounds per day. With a 30 mg/l effluent limitation system, the load would be three times that above or at present 33 pounds per day of BOD-5 and in the year 2000 approximately 48 pounds per day. This is a present differential of 22 pounds per day of BOD-5 or a projected differential of 32 pounds per day for the City of Dayton. For 15 small cities (less than 2500 population presently) in the MWV region there is a present differential of approximately 330 pounds per day of BOD-5 and a projected year 2000 differential of approximately 400 pounds per day. These loadings contrasted to the present loading to the mainstem Willamette River in the MWV region (river miles 85 to 50) of 18,344 pounds per day and the current permit limits of 26,208 pounds per day (Table 34, page C-84 in Proposed Willamette River Plan) indicates their insignificance -- being only 1.8% of the total loading. In fact, it is even doubtful if the assimilative capacity of the Willamette River can be measured to this degree of precision.

We recommend that the DEQ reassess the 10 mg/l effluent standards for small cities in light of the obvious economic burden it will impose and the insignificant differential loading that this standard will remove from the river compared to secondary treatment.

The Proposed Willamette River Basin Plan assesses the assimilative capacity of the Willamette River and proposes control strategies for future compliance with this capacity (Text, page 31). A study funded by the DEQ with Battelle-Northwest produced a mathematical model for predicting water quality (dissolved oxygen) resulting from alternative management control schemes.

The DEQ has listed (Text, page 31) the successful combinations of total waste loadings coupled with minimum river flows that would satisfy water quality standards. All of the combinations are in terms of municipal waste effluent limitations. It can be inferred from this that the only controllable discharges in the future will be municipal wastes. This is difficult to believe when Table 34, page C-84 of the Proposed Willamette River Basin Plan is examined. The current average discharge of industrial and municipal waste to the mainstem Willamette River (river miles 85 to 50) is 18,344 pounds per day of BOD-5. Of this 10,543 pounds per day are industrial wastes discharges. The same Table lists the projected year 1990 discharges "under various levels of treatment." The projected municipal waste is 3,575 pounds per day with an effluent standard of 20 mg/l down to 894 pounds per day with an effluent standard down to 5 mg/l. However, the industrial projected 1990 discharge is held constant at 10,700 pounds per day.

It is our firm conviction that this strategy of the DEQ where municipal waste treatment standards are used as the slack or correction factor for future compliance with water quality standards is not equitable to municipalities.

An inequitable situation also exists with municipalities treating food processing wastes. The proposed discharge standard from these treatment plants, as we understand it, is 10 mg/l during low flow in the Willamette River for BOD-5 and suspended solids. An unfortunate dilemma is that the food industry in the Willamette Valley processes and discharges most of its wastes during the summer and fall or also during low flow periods of the river. The food processing wastes are voluminous, fairly high in strength and unless proper design precautions are taken, can cause severe operational problems at a biological municipal treatment plant.

We do know that requiring a municipal treatment plant treating a significant portion of food processing wastes as occurs in Salem and Woodburn to treat to 10 mg/l is extremely expensive. We doubt that the food processing industry could afford to pay user charges based on this treatment standard and continue to compete in the national market.

We believe a 10 mg/l treatment standard for the food processing industry using municipal treatment facilities is inequitable because:

1. If the food processing plants had their own treatment facilities and discharged directly to the river after treatment, the allowable discharge based on best practicable treatment currently available (1977 minimum requirement) would on the order of 100 mg/l for BOD-5 and suspended solids (assuming corn as the primary product).
2. Other direct discharge industries such as Boise Cascade and Teledyne Wah Chang have discharge standards based on best practicable treatment for their industry and not on municipal treatment capabilities. The pulp and paper plants discharge treated wastewaters considerably above 100 mg/l for BOD-5 and suspended solids. To require them to treat to 10 mg/l would obviously be technically absurd and financially disruptive.

We realize that DEQ recognizes the problem with food processing wastes. They have recommended that the food processors currently discharging to municipal plants turn to spray irrigation as a non-discharging treatment method. The food processors certainly agree with this goal. In the MWV region each processor that is geographically capable currently dispose of their wastes by land treatment. The problem is the urban processors. They cannot use land treatment because sufficient land is not available. They cannot treat and discharge directly because of space limitations and the lack of a proper receiving stream. In short, their only option, if the plants remain in their present locations, is to continue to utilize municipal treatment plants.

We believe that municipal sewage treatment plants treating food processing wastes should be allowed additional discharges based on best practicable

treatment standards through 1983 and best available treatment standards thereafter for the food processing fraction that is treated.

We believe a new system of alternative strategies for meeting water quality standards should be developed by the DEQ. We believe that waste load allocations in these strategies should be based on a system of equity that is first developed by a public task force or a public ad hoc committee. Only in this way can the public, including private citizens, public officials and industrial representatives be confident that all present and future waste discharges to the Willamette River will be controlled equitably. We recommend that after the public task force has developed recommendations for a system of equity, the Proposed Basin Plan should be amended where appropriate by the DEQ before adoption.

5.4 Reservoir Management

In the Text, pages 18 and 19, of the Proposed Willamette River Basin Plan, low flow augmentation out of federal water storage reservoirs is discussed. This is one of the issues that affects the very foundation of this Proposed Plan.

On Table 3, page C-5, title "Stipulated Minimum Flows for Selected Basin Streams -- Willamette River Basin", the natural flow of the Willamette River at three different river mile locations and the expected cumulative storage release at each of these locations are listed. The natural minimum flow at Salem is listed at 1,300 cfs with the expected storage release being 4,700 cfs, giving a total minimum stream flow of 6,000 cfs.

The above flow data brings to the surface a serious dilemma in the DEQ's proposed plan. It is:

1. The language on page 18 (Text, Willamette River Basin Plan) states "there is no legal guarantee" that the augmented flow (4,700 cfs) will be maintained and the existing flow augmentation is a "gentlemen's agreement between state and federal agencies." Therefore, we can conclude there is no legal basis for DEQ to plan a strategy about a minimum stream flow of 6,000 cfs. It also appears likely that the Corps of Engineers will, in the future, sell the excess water to irrigators that is now used for low flow augmentation. This course of action would be entirely proper and consistent with federal regulations since irrigation water is a legally recognized beneficial use. Therefore, the first side of this dilemma is the future uncertainty of maintaining a minimum stream flow of 6,000 cfs.
2. On page 31, (Text, Willamette River Basin Plan) the DEQ lists three strategies that will meet future water quality standards. All of the strategies require a minimum stream flow of 6,000 cfs. Thus, the second side of the dilemma is that unpracticable extremely stringent waste discharge limitations will be required unless a minimum stream flow of 6,000 cfs can be maintained.

We can certainly sympathize with the magnitude of the problems faced by the DEQ in preparing a Basin Plan that would cover all contingencies in the event

of dry weather flow below the 6,000 cfs level upon which maintenance of the present standards depend. However, we believe low flow augmentation is a crucial issue in the Willamette River and the DEQ should face the problem squarely.

5.5 Water Quality Monitoring Program

It is doubtful that the once-every-three-years monitoring program for the mainstem of the Willamette River outlined in the Basin Plan will be sufficient to determine the present impact of non-point sources on water quality in the Basin, nor will it be able to identify activities and geographic areas that constitute non-point sources, except over an extremely long period of time. This is true for the following reasons:

1. temporal changes in weather
2. lack of coverage on any basin tributaries significantly effected by non-point sources.
3. sporadic nature of non-point source location on a single tributary.
4. variation of "background" levels between tributaries.
5. short-term temporal changes in degree and location of man's activities.

If the Department's long-range strategy is to consider the impacts of all source classes and flow volumes when trying to arrive at equitable control of one source class (as suggested elsewhere in this testimony) perhaps a sounder strategy would be to determine the monitoring program necessary to accomplish this long-range goal and to use the basin planning process, and the document itself, as a means to generate the resources necessary to do the job. The basin plan under consideration assumes a status quo budget for the monitoring program and, in that sense, fails to be futuristic when considering the size of the job ahead and the gross inadequacy of the existing data.

5.6 Non-Point Sources

Though it is recognized that data on non-point sources is comparatively unavailable, we are concerned that the basin plan does not identify the kinds of information necessary to evaluate the nature and magnitude of the problem in the Willamette River Basin and layout a strategy for obtaining that information. Though it is generally known that a 208 non-point source effort is being undertaken by the State, there is no hint in this Basin Plan of how the resulting data or planning products will be used in relation to point sources or flow augmentation to achieve an integrated water quality management plan.

Walter Marquess
City of Talent

City of Talent, Oregon
December 20, 1976

COMMENTS ON STATE-WIDE WATER QUALITY MANAGEMENT PLAN

My name is Walter Marquess; I reside at 46 Windsor Avenue, Medford, Oregon, and I am here as the City Engineer for the City of Talent, Oregon.

On Page 61 of the State-Wide Water Quality Management Plan, the Main Stem of Bear Creek has not been designated for beneficial use for Public Domestic Water Supply. Our desire is to include Bear Creek as a recognized beneficial use for Public Domestic Water Supply.

Bear Creek is the only stream in the Rogue River Basin omitted from this designated use. Bear Creek flows from the South to the North through or adjacent to the Cities of Ashland, Talent, Phoenix, Medford and Central Point, prior to joining Rogue River.

The Bear Creek Basin has been closed to all water right applications for many years. The only water available to a City such as Talent is by purchase from the Bureau of Reclamation through its Talent Project or from the Army Corps of Engineers through the Lost Creek Dam Project.

Water from the Bureau of Reclamation is impounded water from the Klamath Drainage that is transported through canals, tunnels, and a powerhouse to Emigrant Lake on the extreme south end of Bear Creek. From that point it can flow by gravity either through existing canal systems or Bear Creek to desired points of intake for Talent.

Water from the Corps of Engineers would be released down Rogue River and then pumped to Talent through non-existing pipe lines and pumping stations.

Talent has been operating a filtration plant using Bureau of Reclamation water from the Talent Project since 1962 during summer months and using its existing water rights on Wagner Creek during winter months. Bureau of Reclamation water is delivered from Emigrant Lake to the existing treatment plant by existing canals during the irrigation season and is then shut off.

Beginning in 1973, inadequate water source was available to Talent during the fall months when operation of irrigation canals ceased and fall rains had not begun increasing flows in Wagner Creek.

From November 1973 to late in 1975, Talent did attempt to pursue an area-wide system to solve their water problem.

The S. T. R. Report of April 1973 (Comprehensive Area-Wide Water and Sewerage Plan for Jackson County) briefly discussed Talent's need for an additional water source as follows:

1. Extending a line from the Ashland system.
2. Developing storage on Wagner Creek.
3. Extend a line from the Medford system.

The S. T. R. Report recommended using water from the Medford system as "the most likely alternative".

Marquess & Associates, Inc. has, since 1972, made several studies of alternate water sources for Talent.

The Medford Water Commission, by letter dated January 6, 1975, would not commit themselves to supplying water to Talent. They suggested that Talent use water from the City of Ashland or directly from Bear Creek. The City of Ashland, by letter dated February 7, 1975, also would not commit themselves to supplying water to Talent.

Our studies indicate the use of an area-wide water system for Talent cannot be considered for implementation in the foreseeable future.

Attached herewith is a copy of the following letters:

1. Letter from City of Talent to the Medford Water Commission, dated February 20, 1974.
2. Letter from Medford Water Commission to City of Talent, dated January 6, 1975.
3. Letter from City of Ashland to City of Talent, dated February 7, 1975.

In 1976, Talent began contract negotiations with the Bureau of Reclamation for additional water and those negotiations were successful. Talent also concluded financial arrangements with various Federal Agencies to arrange financing of their \$1,250,000 Water Project. One portion of this project is now in the bidding stage and the remainder in the contract document preparation stage.

In the Water Project for Talent is a new Treatment Plant to be constructed near the junction of Bear Creek and Wagner Creek with intake structures in both streams.

Water for this plant would be delivered through existing canals to Wagner Creek during the irrigation season. Water during the winter season would come from existing water rights on Wagner Creek or, if that is exceeded by exchanging impounded Bureau of Reclamation water from Wagner Creek water, at the junction of the two streams.

The only time that Bear Creek would be used to transport water to the Treatment Plant would be in the fall months if the volume of Wagner Creek water was insufficient to operate the plant or if some unforeseen condition would occur such as an irrigation canal failure.

The proposed Talent Water Treatment Plant includes the following components and treatment facilities:

1. Settling pond
2. Precipitator-Clarifier
3. Rapid Sand Filters
4. Activated Carbon Filters
5. Chemical Feed Equipment
6. Chlorination
7. Removal of undesirable chemical elements, tastes, odors and turbidity
8. Continuous monitoring equipment
9. Backwash water settling basins to provide zero discharge capabilities

The proposed Water Treatment Plant will provide the degree of treatment to Bear Creek water as required to produce potable water that will meet E. P. A. and State Health Division water quality standards.

The State Health Division office has continued to concur with our concept of using Emigrant Lake water transported in Bear Creek as a raw water supply for Talent, providing that all plans and specifications are approved and the treatment facility produces water that meets State Health Division standards.

December 20, 1976

Tests on water samples from Bear Creek as administered by the 208 Program over the past year, and by tests on water samples taken by Talent over the past six months, indicate that the presence of pesticides is below the allowable levels. Tests on the physical and chemical qualities indicate that they are below allowable levels, or are well within the range of treatability.

As shown by the items briefly discussed, the only viable and economical water supply for the City of Talent is using water transported by Bear Creek during the fall months. For these reasons we are requesting that the Oregon Environmental Quality Commission do everything within its power to protect the quality of water in Bear Creek for beneficial use as a source of public domestic water supply.

Respectfully submitted,



Walter J. Marquess, P. E.
City Engineer, City of Talent

WJM:bm

Encl.

CITY OF TALENT

CITY HALL

POST OFFICE BOX 445 D TALENT, OREGON 97540 D TELEPHONE (503) 535-1566

February 20, 1974

Medford Water Commission
Attn: Mr. Robert Lee
City Hall
Medford, Oregon 97501

Dear Mr. Lee;

I am certain that you are aware of the effect the Stevens, Thompson and Runyan, Inc. report has had on the city of Talent. The STR report shows Talent obtaining water from the city of Medford through the Charlotte Anne water district.

We would like to know if this is a feasible plan; if it is acceptable to the Medford Water Commission and what the procedures would be for implementing it. If possible, the costs connected with this and any problems you might foresee.

Thank you for your cooperation in this vital matter. We look forward to hearing from you as soon as possible.

Sincerely,

Richard Henry
Mayor

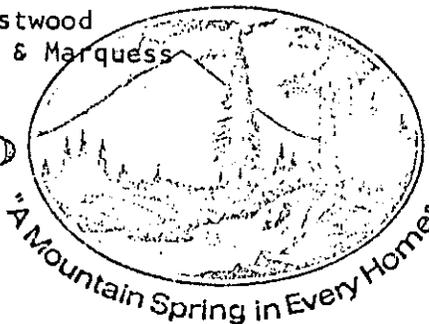
RH/jda

c: Walt Marquess
Robert Dames
R. L. Soderberg
Congressional Delegation
State Legislatural Delegation
Cleighton Penwell (Attn: Leo Farr)
Jackson County Commissioners

Attention: C. P. Westwood
Marquess & Marquess

32-22

MEDFORD



WATER COMMISSION

411 WEST 8th STREET
MEDFORD, OREGON 97501
PHONE (503) 773-7355

January 6, 1975

Richard Henry
Mayor of the City of Talent
P. O. Box 445
Talent, Oregon 97540

Dear Mayor Henry:

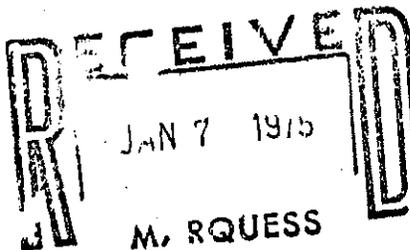
After exhaustive study of the question of supplying water to the City of Talent from the Medford Water System, the Medford Water Commissioners have instructed me to inform you that they suggest that because of the close proximity of Talent Irrigation District water to the City of Talent (as opposed to the Rogue supply source which is 18 miles distant and 675 feet lower) that further investigation of the TID source be made. The Commissioners further suggest that such investigation include the possibility of joint development and operation with the City of Ashland of a water treatment facility which would provide the water quality and reliability of service sought by Talent. It is known that the City of Ashland will be needing a supplemental water source in the not too distant future and this might be the opportune time to develop such source in conjunction with the City of Talent.

From their studies, the Commissioners are aware of the numerous problems in developing a water source using the Talent Irrigation District water either jointly with the City of Ashland or directly from Bear Creek and they are aware of the fact that it might be impossible to put either plan together in which case the Commissioners have indicated that, while making no commitment, they would be willing to further consider the question of supplying water from the Medford System.

MEDFORD WATER COMMISSION

By 
Robert L. Lee, Manager

RLL/ps



CITY OF ASHLAND

February 7, 1975

Hon. Richard Henry, Mayor
Talent City Hall
204 E. Main Street
Talent, Or., 97540

Dear Mayor Henry:

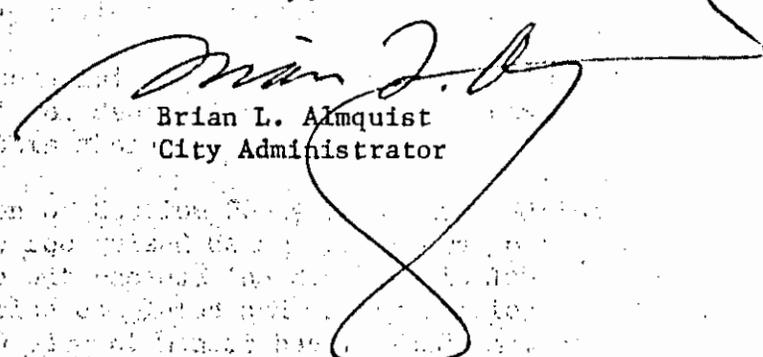
The Ashland City Council at its meeting on February 4, 1975, received your letter dated January 21, 1975, relative to the possibility of a cooperative water facilities project.

The Council directed that I convey that the Oregon Department of Environmental Quality has requested that the City of Ashland undertake a water resources study as a condition of the issuance of a discharge permit for the city's water filtration plant and storage reservoir. This study, if undertaken, will primarily deal with watershed management and the alternate methods of disposal of the annual accumulation of silt at Reeder Reservoir, but may also include a study of supplemental water resources and facilities.

At this time, and for the immediate future, Ashland does not have surplus water resources to assist you with your current problem. However, in the event that we were to proceed with the above study, the Council would be willing to discuss the feasibility of a cooperative effort.

We are now in the process of investigating the availability of Federal funds to complete the requested study, and I will keep you informed of our progress.

Sincerely,



Brian L. Almquist
City Administrator

cc: Mayor & City Council
Director of Public Works
Water Quality Supt. Fallon

GORDON CHRISTIANSEN
CHM
JIM MCBEE
V-CHM
MARION GADBERRY
SEC

33 NORTH CENTRAL
SUITE 211
MEDFORD
OREGON
97501
779-7555

RICHARD T. HOWSLEY
EXEC. DIRECTOR



MEMBERS:
ASHLAND
CENTRAL POINT
EAGLE POINT
GOLD HILL
GRANTS PASS
JACKSON COUNTY
JACKSONVILLE
MEDFORD
PHOENIX
ROGUE RIVER
SHADY COVE
TALENT

SPECIAL DISTRICTS:
BEAR CREEK VALLEY
SANITARY AUTHORITY
CITY & RURAL FIRE
DISTRICTS
IRRIGATION DISTRICTS
SOIL & WATER CONSERVATION
DISTRICTS
WATER DISTRICTS
SCHOOL DISTRICT 549C

ROGUE VALLEY COUNCIL OF GOVERNMENTS

DISTRICT VIII WATER QUALITY PLANNING PROGRAM
Jeff Gibbs
Coordinator

December 17, 1976

Mr. William H. Young, Director
Department of Environmental Quality
1234 S.W. Morrison
Portland, Oregon 97205

Dear Mr. Young:

RE: Rogue Valley Council of Governments 208 Task Force Comments
on Proposed Statewide Water Quality Management Plan

The Rogue Valley Council of Governments Water Quality Task Force has reviewed the Proposed Statewide Water Quality Management Plan and wishes to make the following comments:

1. It is the determination of the Task Force that for the mainstem of Bear Creek, public domestic water supply should be designated as a protected beneficial use. The City of Talent is presently constructing a water treatment plant which will use Bear Creek for its supply. In addition, the City of Central Point wishes to reserve Bear Creek drinking water supply in the future. The entities on the Water Quality Task Force specifically acknowledge this use of Bear Creek Water. The use of Bear Creek water for drinking water purposes will be given full consideration in the local 208 planning effort currently underway.
2. A clarification would be useful concerning the status for our local irrigation districts under this proposed Plan. As you are well aware, one of the major elements of the RVCOG 208 program is an investigation of local irrigation practices and the development of a management program to control pollution from such non-point sources. It is our understanding, "as specified in Statewide Water Quality Management Plan, Volume 1, page 9, paragraph E", that upon adoption by RVCOG and approval by DEQ and EPA this local plan will become the control program for irrigation return flows within our 208 planning area.

Your consideration of these suggested changes will be greatly appreciated.

Sincerely yours,

Jim McBee, Chairman
Water Quality Task Force

JMcB:st



COUNTY COMMISSIONERS

TAM MOORE, Chairman
ISABEL SICKELS, Commissioner
JON DEASON, Commissioner
Administrative Assistant
EDWARD S. BRESNAHAN

Jackson County Oregon

BOARD OF COUNTY COMMISSIONERS

(503) 773-6211, EXT. 311 • COUNTY COURTHOUSE • MEDFORD, OREGON • 97501

The Environmental Quality Commission
1234 S. W. Morrison
Portland, Oregon 97205

Dear Commissioners:

Walt Marquess has testified for the City of Talent supporting the use of Bear Creek Waters for domestic purposes. Jackson County would like to go on record supporting the City of Talent completely. However, there is more at stake here than just the City of Talents water supply problem.

The people of the Rogue Valley are currently involved in a 208 Water Quality Planning Program designed to meet the 1983 goal of fishable swimmable waters contained in Public Law 92-500.

The refusal of DEQ and EQC to recognize public water supply as a beneficial use of Bear Creek Waters to be protected would undermine our local 208 program and in essence be sanctioning the Status Quo.

There are several options available to the local people which would allow accommodations of all the beneficial uses proposed including Public Water Supply and the 208 program provides the vehicle for resolving local conflicts. For DEQ to support less stringent Water Quality Standards would eliminate incentive and defeat the local Water Quality Program.

The Jackson County Board of Commissioners strongly recommend the Environmental Quality Commission reconsider designating Public Water Supply as a beneficial use of Bear Creek Water.

Sincerely yours,

JACKSON COUNTY BOARD OF COMMISSIONERS

Jon Deason
Isabel H. Sickels
Tam Moore

cc: Jeff Gibbs - RYCOG
Cecil Ouellette - EPA

PRINEVILLE-CROOK COUNTY
CHAMBER OF COMMERCEP. O. Box 546
Prineville, Oregon 97754

December 20, 1976

Oregon Environmental Quality Commission Public Hearing

Gentlemen:

I am Claude Williams, Chairman of the Agricultural Committee of the Prineville-Crook County Chamber of Commerce.

We commend those responsible for the amount of work accomplished on this state-wide water quality management plan within the limited time scheduled, considering the complex and diversified conditions that exist in the twenty subject drainage basins.

We concur with suggestions in the narrative summary Volume 3, particularly item 1. "Initiate a public participation program in the basin to be reviewed." This coincides with the recommendation we are proposing for this hearing today. Our suggestions apply to Crooked River drainage and the irrigation projects in Crook County. Other basins would probably like to develop their own plan to suit their specific conditions.

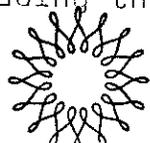
Recommendation: That the Environmental Quality Commission, the E.P.A., the D.E.Q. and other appropriate state or federal agencies support and encourage the creation of an official County Court appointed, "Water Quality Citizens' Advisory Board."

Members of this board should be an official representative of the County Court, the City, the Irrigation Districts, Chamber of Commerce and the major farm organizations. Farm members must be production farmers or ranchers with irrigation experience.

The primary responsibility of this board will be to work with the appropriate state and federal agencies, to monitor and evaluate the state-wide water quality management plan, its policies, rules and regulations and the proposed action program, as applicable to our area.

In Volume two, page 75, Table A, of the proposed state-wide quality management plan being considered today, all of Crooked River has a No. 1 Priority ranking.

Then, adding the recommendations under Irrigation Districts on page



SUNNY PRINEVILLE OREGON

PRINEVILLE-CROOK COUNTY
 CHAMBER OF COMMERCE

P. O. Box 546
 Prineville, Oregon 97754

Oregon Environmental Quality Commission Public Hearing Page 2

79, and those in Volume one, page 7, under I. a. Policies and Guidelines: the statement, "Development of Projects for Storage and Release of quality water to augment stream flow". We interpret this language to be most applicable to Crooked River Basin.

A "Special Report" Deschutes Project Central Division Oregon, Potentials for Expansion and Improvement of Water Supplies, July 1972, prepared by the Bureau of Reclamation, provides the background information from which we can build a comprehensive plan which will, first, improve water quality, but equally important, serve well to insure the preservation and expansion of present and potential recreational, fishery and irrigation needs.

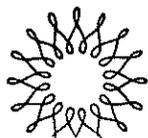
Yes, Gentlemen: With citizen involvement, as suggested, we feel the state-wide Water Quality Management, as proposed, is adequate.

As chairman of the Agricultural Committee of the Prineville-Crook County Chamber of Commerce, may I say to the Oregon Environmental Commission that we will work with you and the several agencies to help bring about public understanding necessary to develop and implement an acceptable water-management plan for our area.

Respectfully,

Claude Williams
 Claude Williams

cc: Senator Hatfield
 Senator Packwood
 Congressman Al Ullman
 State Senator Bob Smith
 State Representative Max Simpson
 Bureau of Reclamation Boise
 Salem
 Crook County Judge, Dick Hoppes



SUNNY PRINEVILLE OREGON

①
To

Oregon Environmental Quality Commission:
Testimony submitted by Grant Hodgson for
People Against the Days Creek Dam, Dec 20,
1976, at a hearing on the proposed State-
wide Water Quality Management Plan.

Gentlemen:

My name is Grant Hodgson, and I live
near Days Creek in Douglas County, Ore.
I represent an organization called People
Against the Days Creek Dam. My testimony
concerns an addendum which was proposed
for inclusion in the State-wide Water Quality
Management Plan at a hearing on the
Regional Plan for the Umpqua Basin ~~held~~
held earlier this year.

The addendum was included in the
Regional Plan to accommodate a proposed
Army Corps of Engineer's Multi-purpose
Dam to be constructed at Days Creek.
The addendum is in the State-wide Plan,
Volume 1, page 40, paragraph 1 (Sec VII, B(C),
2c) and it lowers turbidity standards for the
South Umpqua by defining "natural stream
turbidity" for the river as that turbidity
which will occur in the water released
from the Days Creek reservoir for low stream
flow augmentation.

(2)

I believe that this addendum should not be included in the plan at this time. It is based on a turbidity study conducted by the Corps last winter - a study which was required by Congress in the Phase I (planning) authorization of the Days Creek Dam. I am convinced that the study was inadequate for prediction of Reservoir turbidities. Skepticism of the adequacy of the Study has also been expressed by both the State and Federal Departments of Fish and Wildlife. I believe the Oregon Dept. of Environmental Quality is shirking its duty by granting, in this case, an approval to compromise water quality that it has the responsibility to protect.

The Corps has conducted a turbidity study on the South Umpqua River and predicts that turbidities occurring on the proposed reservoir will not exceed 20 JTUs. The prediction is based on soil and water samples taken last year, and a computer simulation of conditions expected to exist on the proposed reservoir.

(3)

Study deficiencies include:

1. Not enough water samples taken:

Water samples were taken during an unusually ~~to~~ low runoff year, and during one winter only, despite recommendations from the Dept. of Fish and Game that samples be taken for several years.

Samples were taken on a weekly basis and at no time were continuous samples taken during a storm.

A conclusion was reached that river turbidities during a storm were related to soil disturbance in the watershed.

The South Umpqua watershed has much unstable soil containing clays which can cause long term turbidity in a reservoir. This conclusion strongly supports the argument that water samples be taken during several runoff years; since slides are often triggered during a heavy storm, and such slides would expose much soil to erosion.

(14)
2. The computer model is over simplified:

It is based on Stokes Law which gives particle ~~settling~~ settling rates, considers particle size only and does not allow for the possibility of a colloidal suspension occurring. Initial reservoir turbidity was assumed to be 5 JTUs, when model runs showed a summer ~~turbid~~ turbidity of twice that amount following a low runoff winter. Since the reservoir would have to be filled during the winter, initial turbidity should be at least 10 JTUs.

When the Corps proposed construction of a large Dam at Days Creek in 1971, Corps' spokesmen stated that if the proposed reservoir was shown to be turbid, the Dam would not be built. Now the Corps says the reservoir will be turbid, but they can handle the turbidity problem so that it will not adversely affect

(5)

aquatic life either in the reservoir or downstream. Indeed, the Corps' district office has completed the Phase I planning stage of the project, and Senator Hatfield and Congressman Weaver intend to introduce legislation this spring authorizing Phase II - advanced engineering and actual construction. Once the dam is built the DEQ will not be able to prevent water releases from the reservoir should the turbidity level exceed the 20 JTUs cutoff point mentioned in the addendum. The South Umpqua river and the Days Creek reservoir will be turbid + we'll have to live with it.

The Corps of Engineers has received funds to continue their water quality study on the South Umpqua. They intend to take more water samples this year. I believe that sampling during a heavy runoff year is necessary to give adequate data for a good prediction of reservoir turbidity at Days Creek.

6. I feel that the DEQ should not compromise water quality standards on the South Umpqua by lowering turbidity standards to accommodate the proposed Dam at Days Creek, at least until a better turbidity study has been completed by the Corps.

By lowering standards at this time the DEQ is in effect approving the Corps' inadequate study and giving up any leverage that it has to compel the Corps to demonstrate that reservoir turbidities will not cause more damage than benefit to the ecology of the South Umpqua River.

Thankyou

Grant Hodgson

RT 1 Box 27-A

Days Creek, Ore 97429

STATEMENT OF THOMAS M. ETHEN
NORTHWEST FOOD PROCESSORS ASSOCIATION
OREGON ENVIRONMENTAL QUALITY COMMISSION
MULTNOMAH COUNTY COURTHOUSE

December 20, 1976

My name is Thomas M. Ethen and I represent the Oregon members of Northwest Food Processors Association. Our members consist of 38 companies with 58 plants in Oregon. The following comments are offered in response to the Department of Environmental Quality's "State-Wide Water Quality Management Plan".

There are two modifications the Association would like to see. First, I refer to page 82 of Volume I, "Minimum Design Criteria for Treatment and Control of Wastes". The second line of paragraph "C" specifies "new or modified facility" without definition of the word "modified". We feel that this word must be exactly defined to avoid misinterpretation.

Second, page 83, paragraph C.1.a.1 specifies 10 mg/l BOD and 10 mg/l SS or equivalent treatment from approximately May 1 to October 31. We request that this numerical value be eliminated or reworded so as to follow Federal EPA standards. *

What does the 10 mg/l BOD and 10 mg/l SS standard mean to the food processing industry of Oregon?

The Environmental Protection Agency estimates that a 3 percent increase in production costs would be required to meet the 30/30 Federal standard. If the 10/10 standard is enforced in Oregon, we feel it would cost more than that.

All processors have costs in three categories: procurement, processing and distribution. Procurement costs include the raw product, the physical supplies and their assembly costs. Processing consists of a number of distinct costs including labor, fuel and electricity, taxes, season length, product mix, plant efficiency and waste disposal. Distribution costs consist of rail and truck freight costs to the markets.

The food processing industry in Oregon is an exporting industry. Of the \$385 million annual sales volume approximately 90 percent is sold to customers outside of Oregon and about 75 percent of that is shipped East of the Rockies. With two-thirds of the nation's population located East of the Mississippi River, the continuation of food processing as an Oregon industry depends largely on our ability to be competitive in the Eastern United States. Our labor and freight rates have always been significantly higher than the rates in the competing vegetable processing areas such as Wisconsin, Michigan, and New York. Until recently these high labor and freight rates were off-set by comparatively lower costs of raw products and energy. However, in the last three years both raw products and energy costs have risen here in Oregon and no compensating factors have arisen to allow our industry to remain as competitive.

Economic studies of the fruit and vegetable industry indicate that food processors would be able to pass on little of their added cost for pollution control within either the short-run or the long-run (Ref. 1, p. VII-1). The reasons for consumer price resistance are numerous: potential substitution of higher-priced commodities by imports, and by increasingly popular home-grown products. (Price weaknesses have become more pronounced since the recent leveling-off and decline in the total market for processed fruits and vegetables.) Growers are similarly resistant to absorbing passed-on costs, due to the rigidities of processor-grower contracts and marketing orders, and also to the availability of alternative crop production choices for the growers.

About 55 percent of all U.S. processors are able to discharge to city sewers at less than self-treatment would cost (Ref. 1, p. VII-5) so they will tend to hold prices down to their cost levels. Therefore, we hypothesize that all the extra treatment costs would have to be absorbed by local processors.

The economic impact of only a 1 percent increase in production costs (and corresponding reduction in profits) must be related to the overall long-term pre-tax profit of 4.4% on sales by U.S. food processors (Ref. 1, p. VII-14). Although the national average profit rate is 4.4%, projections indicate that about one in every fifty fruit and vegetable processing plants will close each year between now and 1983 (Ref. 1, p. VII-40). Reduction of the average profit in the Willamette area would expose a considerably greater fraction of plants to shutdown.

A rough estimate of the increased closure rate can be derived by assuming a normal distribution of profitability with the mean at 4.4% profit on sales, and with one out of fifty (.02 fraction) plants falling below 0% and closing each year. If the mean of this same distribution of profitability is then depressed to 3.4%, as projected here for Willamette Valley processors, the fraction of producers falling below 0% profitability would rise to .06. In other words, increased waste treatment costs would force an additional one out of every twenty-five (.04 fraction) processors that would otherwise be able to remain in operation to close each year.

It is a slight oversimplification to relate this increased closure rate directly to employment because the smaller plants are the ones most likely to close. But as a first approximation one can estimate that a 4 percent excess rate of processor closures will cause a comparable decline in employment. A factor of three "multiplier effects" must be included to consider other jobs in local services, farm production, etc. that are dependent on these processing activities. In other words, for every direct food processing job lost, three other jobs could be lost.

One alternative to processors who would have financial problems staying with expensive municipal treatment plants is to use land application methods. CH2M, Hill in its report of January, 1976, on waste water treatment needs for a Eugene processor indicate that sprinkler irrigation application would cost less than half of the cost of treatment at the Eugene Wastewater Treatment Plant assuming Eugene installs a tertiary treatment system. The flexibility, reliability and

~~case~~ of operation of the two treatment alternatives, municipal treatment vs. land disposal, were compared and the land application alternative was judged by CH2M, Hill to be the most reliable, most flexible, and easiest to operate.

However! In the Salem area, there are approximately 12 food processors who discharge their wastes to the Salem municipal treatment plant. Few, if any, of them are close enough to rural land to economically pipe their waste to land for spray application.

Also, consider the following quote based on information from EPA:

"The effluent limitation requirements can be expected to have a significant impact on the preserved fruits and vegetable industries as reflected in plant closures. This impact will fall primarily on those plants operating private treatment systems and discharging directly into navigable waters. Consequently, the industries will experience a shift of production along with competitive advantages from these plants to those plants incorporated into municipal treatment systems. In addition to the direct impacts, there will be indirect impacts that will be felt not only by the industries involved but also by the consumers, suppliers, communities and regions. These impacts will focus on price increases and employment losses." (Emphasis added).

Thus, the best choice for Salem area processors appears to be to remain with the city treatment plant. However, according to Mr. Herb Arnold, Sanitary Engineer for the city of Salem, the cannery waste load which occurs primarily during low river flow would require additional treatment beyond the capabilities of the new

Page 5
Statement of Thomas Ethen
December 20, 1976

\$18 million Willow Lake treatment plant to achieve even 20/20 standards let alone 10/10 standards. One could easily foresee at least a 3-4 percent production cost increase to pay off the cost of the new facility. The impact of a 1 percent increase was pointed out earlier. Imagine an impact three times as great.

We do not completely understand the need for 10/10 standards here in Oregon. We are fully aware of the previous condition of the river and the struggle to return it to its present condition. Following are the reasons the Federal EPA standards should not need to be exceeded:

First, the National Commission on Water Quality's recommendation. The Commission made a two-and-a-half year study of the economic and social impact of achieving the Act's July 1, 1977, and 1983 requirements. The Commission recommended mid-course corrections in the nation's water clean-up goals. It said the July 1, 1977, date for compliance with uniform treatment requirements should be maintained, but with flexibility to grant extension, and even waivers, on a case-by case and category-by-category basis. It also recommended that the 1983 interim water quality goal be maintained but that the 1983 requirements for applications of uniform technologies be postponed for 5-10 years pending an assessment by 1985 of progress in water quality improvement and review of these results by a new NCMQ.

In light of the national standards, we feel that Oregon's hard-pressed industries should not have to bear an additional burden which will not be imposed nationwide.

Second, Mr. Russell Train, Administrator of EPA in a letter dated December 3, 1976, to the Office of Management and Budget requested clearance of the following amendment for transmittal to the 95th Congress:

"An amendment to Section 202 of the Act to limit the Federal share of construction grants to secondary treatment except where the grants demonstrate that a more stringent law of treatment is the cost-effective way of achieving the beneficial uses of state water quality standards".

Third, according to the November 19, 1976, CAPITAL PRESS:

"The water quality in the Willamette River could be maintained most cheaply by increasing stream flow in late summer rather than requiring additional treatment of wastes from cities and industries . . . This could be less expensive in terms of both money spent and energy used".

The above background information should be more than sufficient justification for the Environmental Quality Commission not to adopt a water quality standard more stringent than required by the Federal Environmental Protection Agency.

Our support is extended to the position of both the Mid-Willamette Valley Council of Governments and Associated Oregon Industries.

The following questions should additionally be addressed by the Department of Environmental Quality:

- 1) Who benefits from the enlarged capacity at treatment plants when industry either cuts its discharge or goes to alternate disposal methods?

- 2) How do the cities repay ~~their~~^{THEIR} loans if industry separates from treatment plants designed specifically for them?

Finally, the Northwest Food Processors Association wishes to comment briefly that the citizens and industry of Oregon did not have adequate time to prepare themselves for this hearing or the original hearings. We realize the Department of Environmental Quality has had severe budgetary constraints. However, we do not feel that justifies a hasty, poorly prepared plan on their part. We do want to let you know that Northwest Food Processors Association does stand ready to assist the Department of Environmental Quality in the development of a more complete and final document at any time in the future.

Thank you for your attention

* * * * *

REFERENCES

- (1) EPA, Economic Analysis of Interim Final and Proposed Effluent Guidelines
--- Canned, Frozen, and Preserved Fruits and Vegetables Industry, Wash., DC,
Sep., 1975.
- (2) National Commission on Water Quality Staff Report, April, 1976,
Wash., DC
- (3) Project SCORE, National Cannery Association

TESTIMONY ON THE STATEWIDE
WATER QUALITY MANAGEMENT PLAN BY THE
SPECIAL SUBCOMMITTEE ON THE PROPOSED
WILLAMETTE BASIN PLAN OF
ASSOCIATED OREGON INDUSTRIES TO
THE ENVIRONMENTAL QUALITY COMMISSION
December 20, 1976

My name is Thomas C. Donaca, General Counsel for Associated Oregon Industries and I am here today representing a special subcommittee on the proposed Willamette Basin Plan of the Water Quality Committee of Associated Oregon Industries. The testimony today is confined to the Willamette Basin portion of the proposal.

We have one major request to make today and that is that the Willamette Basin Plan give greater recognition to the value and need for maintaining minimum stream flows during the summer low flow period. We believe the matter should be specially recognized in the Willamette Basin portion of the Plan under Special Policies and Guidelines found in Sub-section D on Pages 86 and 87 of Volume I.

We agree with the comments found in the original text of the Willamette Basin Proposal on Pages 18 and 19 which said: (NOT there now?)

"No water pollution control program can be successful without adequate water in the receiving streams to assimilate both natural wastes and man-made waste effluent discharged from treatment facilities. A major ingredient in the success story of the Willamette cleanup has been low flow augmentation out of federal water storage projects. Flow augmentation for water quality control came as an unanticipated bonus rather than by prior design of these projects. While the main stem of the Willamette River currently has enough water for waste residue assimilation purposes, there is no legal guarantee that the volume will be maintained. It comes now by "gentlemen's" agreement between state and federal agencies. Many of the tributary streams are extremely deficient in summer flow. Historically, statewide consumptive water usage has had general priority over the maintenance of stream quality. As the state's social and industrial complex broadens there will sharp increases in water demands from streams whose flows are already heavily appropriated."

"A successful water pollution control program must be coordinated with a parallel

program for maintaining adequate base stream flows of suitable quality. To that extent, the Department of Environmental Quality will cooperate with, and urge those agencies having regulatory powers over stream flow to continue strong programs toward development of projects for storage and release of suitable quality waters. Such projects need not be scoped solely for large dams on main stem water courses. Numerous smaller dams on lesser waterways will provide substantial base flows as well as benefiting many more miles of waterways. Section 102(b) of the Federal Water Pollution Control Act of 1972 (P.L. 92-500) requires, in part, that federal agencies planning new reservoirs consider the inclusion of storage for regulation of stream flow, except that such storage shall not be provided in lieu of adequate treatment or other methods of controlling waste at the source."

As has already been noted by others, the Willamette River is now the largest river in the United States on which all known point sources of waste waters receive secondary treatment. However, treatment alone will not assure high standards of water quality. Quantity of water is essential and after secondary treatment has been provided maintenance of minimum stream flow is the most cost-effective way to preserve water quality during low flow periods. We believe this matter is of such high priority that the matter, as it relates to the Willamette Valley, cannot be treated as it now is in the statewide Water Quality Management Plan under Policies and Guidelines Generally Applicable to all Basins under H on Page 6, Volume I which relates to non-point sources only. *critic*

It is our recommendation that the Commission should assume responsibility and we therefore suggest that a new Subsection be added to Subsection D, Page 87 of the Willamette Basin Plan which would read:

) "The Environmental Quality Commission shall investigate, together with any other affected state agencies, the means of maintaining at least existing minimum flow during the summer low flow period." *add*

) We are also concerned with the potential adverse economic effect on the packing and canning industry as a result of the application of 10/10 design criteria during summer low stream flows on the Willamette River. The industry has little ability to shut in

and is unable to adjust its seasonal operating pattern away from the summer low flow period. While the application of this rule will not be immediate, in view of the economic situation of the industry as we understand it, it is our belief that there will be serious economic consequences to that industry from application of the proposed plan. It would be our recommendation that your staff be directed by you to work continuously with the industry to seek adequate and reasonable means of resolving the discharge problems which they now have.

In conclusion, we would simply state that we, like others who are appearing here today, did not have adequate time to truly prepare ourselves for the original hearings on this subject matter. However, we also recognize the difficulties that your staff was confronted with in putting the program together at this late date and after the program had been delayed for over a year from the date that it was required for submission by EPA. We think your staff has summarized this particular problem well on Pages 14 and 15 of Volume III under point 1 -- Inadequate Public Participation. We would agree with the conclusion of the staff that the plan "as recommended is in reality not an attempt to develop a new plan. Instead, it is merely an attempt to set down on paper in a more detailed form, the existing 'plan' which has been guiding Department actions." We also recognize that EPA will require of you further revisions of this plan in the very near future and that this plan should be viewed as an interim and transitional plan. Under the circumstances, your staff has done a satisfactory job under most difficult circumstances. We wish to let you know that we stand ready as an association to work with the agency in the development of a more comprehensive plan during the next series of meetings.



DEPARTMENT OF JUSTICE

PORTLAND DIVISION
555 STATE OFFICE BUILDING
PORTLAND, OREGON 97201
TELEPHONE: (503) 229-5725

December 20, 1976

~~Environmental Quality Commission
1234 S.W. Morrison Street
Portland, Oregon 97205~~

Re: Northwest Environmental Defense Center, et al v.
Russell Train, et al, United States Court of Appeals
for the Ninth Circuit, No. 73-3599

Dear Commissioners:

On or about September 28, 1973, Russell E. Train, the Administrator of the United States Environmental Protection Agency ("EPA") approved Oregon's water permit program and transferred to the Department of Environmental Quality ("DEQ") the authority to issue National Pollutant Discharge Elimination System ("NPDES") permits in Oregon, pursuant to Section 402 of the Federal Water Pollution Control Act.

In 1973 the Northwest Environmental Defense Center ("NEDC"), Christopher Kittel, Ronald Lansing and Arch Diack filed the subject case to review the approval given by Administrator Train of the State of Oregon's NPDES program. Named as respondents in the subject case were EPA, Administrator Train, the then Regional Administrator of Region X of EPA, James Agee, DEQ, and the then Director of the DEQ, Diarmuid O'Scannlain. Donald DuBois and William H. Young have succeeded Mr. Agee and Mr. O'Scannlain respectively.

On November 16, 1976 a three-member panel of the Court issued an order reversing Administrator Train's approval. The Court suspended the effective date of its order 60 days in order to allow the Commission to amend Oregon's NPDES program to comply with the Federal guidelines and to resubmit it to the EPA Administrator for his approval.

Since Administrator Train's approval of the Oregon NPDES program, the DEQ has issued over 700 NPDES permits which have been approved by the EPA. Should the Court's order become effective, it would cast a cloud upon the validity of each of those permits.

Respondents DEQ and Director Young have petitioned the entire Court to rehear the case. The Court has not yet acted upon their petition. Respondents DEQ and Director Young allege in their petition for rehearing: that the Petitioners did not have sufficient standing to bring the case; that Congress did not intend that the State's NPDES programs would be required to be a verbatim mirror image of the federal guidelines; that the EPA Administrator's interpretation of the statute and his consequential approval of the Oregon NPDES program was reasonable and should be followed; or that the Court should remove the cloud upon the validity of the 700 issued NPDES permits by an appropriate final order.

The federal respondents in the case have filed a motion for an extension of the time through January 7, 1977 in which to file a petition for rehearing.

At this point in time the Commission has several alternatives open. Generally, the alternatives are (1) to continue to seek a resolution in the courts, or (2) to attempt to comply with the Court's order. I will discuss those alternatives in order.

As I mentioned above, the entire Ninth Circuit has pending before it the petition of respondent DEQ and respondent Young to rehear the case. The case was heard before a three-member panel of the Court. Judge M. Oliver Koelsch, a member of the panel, filed a statement in dissent of the Court's order. Before a case can be reheard before the entire Ninth Circuit as many as two votes may be taken. First, the panel which heard the case is polled as to whether or not the entire panel should be polled. If at least one member of the original panel votes affirmatively, then the entire panel is polled and the petition is granted or denied based on the majority vote of the entire panel. It appears that the respondents may very well have that first vote. Although we have requested to submit additional briefs and oral arguments if our petition for rehearing is granted, the petition for rehearing could be granted and the case decided upon a consideration by the entire Court of only the briefs which have previously been filed. Although petitions for rehearing and particularly petitions for rehearing en banc are not often granted, the Court of Appeals for the District of Columbia Circuit recently reversed a three-member panel thereof and reinstated the validity of the EPA Administrator's action in regulating gasoline lead additive emissions. Ethyl Corporation v. EPA, ___ F2d ___, 8 ERC 1785 (DC Cir, 1976). The Court has not yet acted upon our petition for rehearing possibly because it is waiting until it has received a petition for rehearing from the federal respondents, should they decide to file one.

If the Oregon respondents are unsuccessful in gaining relief from the Ninth Circuit, then it would still be possible to file a petition for a writ of certiorari with the United States Supreme Court.

The Commission could attempt to comply with the Court's order in at least two alternative ways. First, it could adopt verbatim the applicable language of the Federal guidelines in question. Second, the Commission could amend its rules in a form which has the approval of all the parties to the judicial proceeding, although not identically mirroring the Federal guidelines. In either case, the adoption of rules by the EQC and the approval thereof by the EPA Administrator would not remove the cloud upon the 700 NPDES issued permits. The cloud can only be removed by further action of the Court. It is possible, but by no means assured, that the Court, by suspending the effective date of its order for 60 days, intends to remove the cloud if the respondents make a showing to the Court that the Commission has amended its rules (and the EPA Administrator has approved them) to conform to the EPA guidelines before the 60 days expires and the order becomes effective. The Court may intend, in those circumstances, to withdraw its previous order and dismiss the case as moot. This would then have the same effect as if no case were ever filed. If the Court does not intend to remove the cloud as described above, or by amending its final order, or by some other method, then the only feasible method of removing the cloud would be by further judicial proceedings.

In order to seek a judicial resolution of this matter the Commission need not take any action at present. The petition for review has been filed and the action which is subsequently taken on it by the Court would dictate our future action.

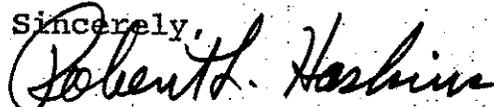
The option of adopting a mirror image of the Federal regulations is not recommended. It would be a simple task, however, to compile such rules for adoption.

Regarding the option of adopting amendments to the rules which have been agreed to by all the parties to the judicial proceeding, the DEQ has negotiated with petitioners through their attorney, Christopher Kittell. DEQ and petitioners have agreed upon language which, if adopted by the EQC and approved by EPA Administrator, would be acceptable to petitioners and the DEQ. This language has also been reviewed and approved by EPA attorney, Robert Emmett, in Washington D.C. Petitioners and DEQ have agreed that if the proposed amendments are adopted and approved that they would jointly petition the Court of Appeals to withdraw its order of November 16, 1976 and dismiss the case with prejudice. They have agreed that if the rules are adopted but there has not been sufficient time for the EPA Administrator to approve them before the 60 days specified in the order have expired, then

they would jointly petition the Court for an extension of the 60 days in order to allow the EPA Administrator to approve the rules. However, should the Court not remove the cloud, then the State of Oregon would be free to pursue its rights to obtain judicial review of the Court's order by prosecuting its petition for rehearing, a writ of certiorari or any other remedy. If the Court does remove the cloud, then the Oregon respondents would waive all their rights to seek further judicial review of the Court's order. The petitioners and the State of Oregon respondents have executed a settlement agreement incorporating the above provisions and others. A copy of the settlement agreement is attached hereto and is marked Exhibit "I". The settlement agreement has been prepared for execution by the Federal respondents also. Limitations of time have prevented it from being so executed. The effectiveness of the settlement agreement is contingent upon the Commission adopting the proposed rules which are attached as Exhibit "A" to the settlement agreement. Adoption of the proposed rules could be done by temporary rule.

The above outlines the alternatives before the Commission at this time.

Sincerely,



Robert L. Haskins
Assistant Attorney General

pjw
Enclosure

cc: ~~Mr.~~ William H. Young - enc.
Mr. Harold Sawyer - enc.
Mr. C. Kent Ashbaker - enc.
Mr. David W. O'Guinn - enc.
Mr. Robert Emmett - enc.
Mr. Michael P. Carlton - enc.
Mr. Ted Rogowski - enc.
Mr. Lloyd Reed - enc.
Mr. Christopher Kittell - enc.

EXHIBIT "I"

SETTLEMENT AGREEMENT

This agreement is made between the NORTHWEST ENVIRONMENTAL DEFENSE CENTER ("NEDC"), an Oregon nonprofit corporation; CHRISTOPHER KITTELL; RONALD LANSING; ARCH DIACK; the UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ("EPA"); RUSSELL TRAIN, Administrator of EPA; DONALD DuBOIS, Regional Administrator, Region X, EPA; OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY ("DEQ"); and WILLIAM H. YOUNG, Director of DEQ.

WHEREAS

A. In 1973 NEDC, Christopher Kittell, Ronald Lansing and Arch Diack ("Petitioners"), filed a petition (no. 73-3599) with the United States Court of Appeals for the Ninth Circuit ("the Court") to review the approval given by Administrator Train of the State of Oregon's program to issue National Pollutant Discharge Elimination System ("NPDES") permits pursuant to section 402 of the Federal Water Pollution Control Act ("FWPCA"). Administrator Train, Regional Administrator DuBois, Director Young, EPA, and DEQ are respondents in that case. Regional Administrator DuBois and Director Young are successors in interest of Regional Administrator James Agee and Director Diarmuid O'Scannlain, respectively. Petitioners contended that Oregon's plan did not in certain respects meet the minimum requirements mandated by the applicable federal regulations.

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B. On November 16, 1976, a three-member panel of the Court issued an order reversing Administrator Train's approval. The Court suspended the effective date of its order 60 days in order to allow the Oregon Environmental Quality Commission ("EQC") to amend Oregon's NPDES program to comply with the federal regulations and to resubmit it to the EPA Administrator for his approval. Respondents DEQ and Director Young have petitioned the Court to rehear the case en banc.

C. Since Administrator Train's approval of the Oregon NPDES program, the DEQ has issued over 700 NPDES permits which have been approved by EPA. Should the Court's order become effective it would cast a cloud upon the validity of each of those permits.

D. The parties hereto desire to settle their differences, discontinue their litigation, dismiss the case and prevent the cloud from being cast upon the outstanding permits.

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the parties agree as follows:

1. If the EQC adopts the proposed amendments to Oregon Administrative Rules, sections 340-45-035 and 340-45-065, which are contained in the document entitled "Environmental Quality Commission, Proposed Amendments to NPDES Rules, December 20, 1976" ("Proposed Amendments"), a copy of which is attached hereto, marked Exhibit "A" and is made a part

hereof, then the parties shall jointly petition or move the Court to withdraw its order of November 16, 1976, and dismiss the case with prejudice, with no costs or attorneys fees to any party.

2. It is the parties' joint intention that the cloud upon the validity of the outstanding Oregon NPDES permits be removed by the Court. Should the Court not remove the cloud by withdrawing its order of November 16, 1976, and dismissing the petition for review, by amending that order, or in another manner, then Respondents shall be free to pursue their rights to obtain judicial review of the Court's order by petition for rehearing, writ of certiorari, or other remedy.

3. If the EQC adopts the Proposed Amendments, but the EPA Administrator, or an authorized representative, has not approved (FWPCA §402) the Proposed Amendments on or before January 7, 1977, then the signatories hereto shall jointly petition the Court to further extend the effective date of its November 16, 1976 order for a sufficient amount of time in order to allow the EPA Administrator to so approve the rules.

4. Administrator Train and Regional Administrator DuBois approve the Proposed Amendments (Ex "A") pursuant to FWPCA §402.

5. If the EQC adopts the Proposed Amendments, the EPA Administrator (or an authorized representative) approves them, and the Court removes the cloud upon the issued Oregon NPDES permits (see paragraphs C and 2 above), then the Respondents shall waive all their rights to gain further judicial review of the Court's November 16, 1976 order.

6. This agreement shall be binding upon all successors in title and interest. Each reference to an official by surname shall be deemed to be a reference to his successor where appropriate.

7. The EQC may adopt the Proposed Amendments by temporary rule, pursuant to ORS 183.335(5).

8. This agreement shall be binding upon each of the signatories upon his execution hereof regardless of whether all the parties had then executed it.

9. This agreement may be submitted to the Court.

Date: _____

Location: _____

Christopher Kittell

Date: _____

Location: _____

Ronald Lansing

Date: _____

Location: _____

Arch Diack

NORTHWEST ENVIRONMENTAL DEFENSE
CENTER

Date: _____

By _____

Location: _____

Title:

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY

Date: _____

By _____

Location: _____

Russell Train, Administrator

Date: _____

By _____

Location: _____

Donald DuBois, Regional
Administrator, Region X

DEPARTMENT OF ENVIRONMENTAL
QUALITY

Date: _____

By _____

Location: _____

William H. Young, Director

EXHIBIT "A"

ENVIRONMENTAL QUALITY COMMISSION
PROPOSED AMENDMENTS TO NPDES RULES

December 20, 1976

I. Amend Oregon Administrative Rules, section 340-45-035, subsections (2), (4), (6), (7) and (8), to read as follows: (language to be added is indicated by underlining; language to be deleted is indicated by parenthesis and striking out);

340-45-035 ISSUANCE OF NPDES PERMITS.

- (1) Following determination that it is complete for processing, each application will be reviewed on its own merits. Recommendations will be developed in accordance with provisions of all applicable statutes, rules, regulations and effluent guidelines of the State of Oregon and the U.S. Environmental Protection Agency.
- (2) The Department shall formulate and prepare a tentative determination to issue or deny an NPDES permit for the discharge described in the application. If the tentative determination is to issue an NPDES permit, then a proposed NPDES permit shall be drafted which includes at least the following:
 - (a) Proposed effluent limitations,
 - (b) Proposed schedule of compliance, if necessary, established in conformance with

the Federal Act and regulations issued
pursuant thereto.

- (c) Any other special conditions.
- (3) In order to inform potentially interested persons of the proposed discharge and of the tentative determination to issue an NPDES permit, a public notice announcement shall be prepared and circulated in a manner approved by the Director. The notice shall tell of public participation opportunities, shall encourage comments by interested individuals or agencies and shall tell of the availability of fact sheets, proposed NPDES permits, applications and other related documents available for public inspection and copying. The Director shall provide a period of not less than 30 days following the date of the public notice during which time interested persons may submit written views and comments. All comments submitted during the 30-day comment period shall be considered in the formulation of a final determination.
- (4) For every discharge which has a total volume of more than 500,000 gallons on any day of the year, the Department shall prepare a fact sheet which contains the following:

- (a) A sketch or detailed description of the location of the discharge;
 - (b) A quantitative description of the discharge, including the rate of frequency of the discharge;
 - (c) The tentative determination required under Section 45-035(2);
 - (d) An identification of the receiving stream with respect to beneficial uses, water quality standards, and effluent standards;
 - (e) A description of the procedures to be followed for finalizing the permit; and,
 - (f) Procedures for requesting a public hearing and other procedures by which the public may participate.
- (5) After the public notice has been drafted and the fact sheet and proposed NPDES permit provisions have been prepared by the Department, they will be forwarded to the applicant for review and comment. All comments must be submitted in writing within 14 days after mailing of the proposed materials if such comments are to receive consideration prior to final action on the application.
- (6) After the 14-day applicant review period has elapsed, the public notice and fact sheet shall be (circulated

in-a-manner-prescribed-by-the-Director.) sent to any person upon request. The Director shall add the name of any person or group upon request to a mailing list to receive copies of public notices and fact sheets. Any public notice and fact sheet under this section shall be prepared and circulated consistent with the requirements of regulations issued under the Federal Act. The fact sheet, proposed NPDES permit provisions, application and other supporting documents will be available for public inspection and copying. The Director may, in his discretion, charge a reasonable fee for reproduction and distribution of the public notice fact sheet and other supporting documents.

- (7) The Director shall provide an opportunity for the applicant, any affected state, or any interested agency, person or group of persons to request or petition for a public hearing with respect to NPDES applications. If the Director determines that useful information may be produced thereby, or (that) if there is a significant public interest in holding a hearing, a public hearing will be held prior to the Director's final determination. Instances of doubt shall be resolved in favor of holding the hearing. There shall be public notice of such a hearing.

(8) At the conclusion of the public involvement period, the Director shall make a final determination as soon as practicable and promptly notify the applicant thereof in writing. Any NPDES permit issued hereunder shall contain such pertinent and particular conditions as may be required to comply with the Federal Act or regulations issued pursuant thereto. If the Director determines that the NPDES permit should be denied, notification shall be in accordance with Section 45-050. If conditions of the NPDES permit issued are different from the proposed provisions forwarded to the applicant for review, the notification shall include the reasons for the changes made. A copy of the NPDES permit issued shall be attached to the notification. In any case before the Director will issue an NPDES permit which applies effluent limitations in accordance with effluent guidelines rather than water quality standards, he will make a determination that the permitted discharge will not violate applicable water quality standards and will provide some justification for that determination. Such justification will include but not necessarily be limited to:

- (a) A description of the anticipated effect on water quality at the mixing zone boundary of the chemical and/or

physical parameter(s) upon which the size
and shape of the mixing zone are based;
and

(b) A statement of anticipated effect of the
discharge on aquatic life.

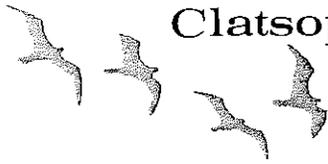
- (9) If the applicant is dissatisfied with the conditions or limitations of any NPDES permit issued by the Director, he may request a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director within 20 days of the date of mailing of the notification of issuance of the NPDES permit. Any hearing held shall be conducted pursuant to the regulations of the Department.

II. Amend Oregon Administrative Rules, section 340-45-065, to read as follows (language to be added is indicated by underlining):

340-45-065 OTHER REQUIREMENTS

- (1) Prior to commencing construction on any waste collection, treatment, disposal or discharge facilities for which a permit is required by Section 45-015, detailed plans and specifications must be submitted to and approved in writing by the Department as required by ORS 468.742; and for privately owned sewerage systems, a performance bond must be filed with the Department as required by ORS 454.425.

(2) Monitoring, recording and reporting procedures
used to meet the requirements of an NPDES permit
shall conform with the Federal Act and regulations
issued pursuant thereto.



Clatsop Environmental Council

P.O. Box 504
Astoria, Oregon 97103



December 19, 1976

Mr. Joseph Richards, Chairman
Environmental Quality Commission
1234 S.W. Morrison
Portland, Oregon

Dear Mr. Chairman:

Your action of October 15 approving a change in Geographic Rule B, OAR 340, Division 7, Section 71-030, allowing sand-on-sand fill to be used to meet DEQ septic tank permit requirements, has recently come to our attention.

We question the advisability of such a change at this time, for the following reasons:

- 1) The rule change would effectively frustrate the ongoing land planning process in Gearhart and the Clatsop Plains. City and County comprehensive plans and subdivision ordinances are still in progress, and the citizens are now addressing such questions as the preservation of coastal marshes and environmentally sensitive wetlands, particularly within the Gearhart city limits, which would be directly affected by the rule change.
- 2) The rule change would permit an immediate unplanned increase in housing density in Gearhart and the Clatsop Plains, which residents of these areas oppose. This opposition is reflected in the 1976 Gearhart questionnaire and in the Clatsop Plains Citizens Advisory Committee's resolution of December 6, 1976, supporting continued enforcement of the DEQ building moratorium until Clatsop County's comprehensive plan is adopted.
- 3) The HUD survey in connection with federal flood-plain insurance is not complete for Gearhart and the Clatsop Plains. The flood-plain survey is another essential tool not yet available to local planners in this region.
- 4) The rule change, which would result in a greater density of septic tank installations in the area, would accelerate groundwater degradation through nitrate contamination. The DEQ itself has been concerned with nitrate levels in the Clatsop Plains aquifer, and has emphasized the inability of sand to remove nitrates.

For these reasons, the Clatsop Environmental Council urges the Environmental Quality Commission to rescind its action of October 15, 1976, and to postpone further consideration of this rule change until the citizens of Gearhart and the Clatsop Plains have completed their comprehensive land use plans.

Yours truly,

Stewart Bell, Chairman

occur. This is not asking for a great deal of sacrifice on the part of DEQ or local builders; we are into the dormant building season on the coast, and a delay of three or six months would not, I feel, cause undue hardships on prospective homeowners; the County was just awarded a planning grant from the Commission and Clatsop Plains is a top priority; the service district issue should be resolved in the next few months; and Gearhart should have an adopted plan within the same period.

Would it be possible for you to communicate these concerns to Bill Young and get some response before the rule goes into effect on January 1? I apologize for the lateness of the request, but it has only recently come to my attention.

Thanks for your efforts.

Yours,



Mike Morgan, Local Coordinator

MM:bha

cc: Bill Berg, City of Gearhart
Hiram Johnson, Chairman, Clatsop County Board of County
Commissioners
Jack Osburn, DEQ

CLATSOP-TILLAMOOK INTERGOVERNMENTAL COUNCIL

Box 488 • Cannon Beach, Oregon 97110 • Phone 436-2967

Jack Lesch, Director

December 13, 1976

Hal Brauner, Director
Department of Land Conservation and Development
1175 Court Street N. E.
Salem, OR 97310

Dear Hal:

If you will recall, you sent a letter (October 12, 1976) to Jack Osburn of the DEQ to request postponement of a proposed OAR change in septic tank permits that would allow sand dune areas to be filled. (OAR 340, Division 7, Section 71-030, Geographic Rule B.) As I understand it, the adoption of the rule affecting the Clatsop Plains area of Clatsop County was postponed until the county could complete its comprehensive plan for this area, and possible until the Coastal Goals could be adopted.

At this point, the Clatsop County Plan, the City of Gearhart Plan, the Gearhart Subdivision Ordinance and the Coastal Goals are all still incomplete or pending adoption. The South Clatsop Plains is in the process of determining the extent of its service area and urban growth boundary. Public facilities alternatives are being considered. All of these are important issues that the local people are struggling to resolve, with no small amount of controversy.

Several city council persons in Gearhart have expressed strong concerns to me about the impact of this rule in their community during this period of flux, and while no official action has been taken on this issue I must agree that the enforcement of the rule in this area now would effectively frustrate good comprehensive planning. Action from the Gearhart Council is on Tuesday evening.

I feel that enforcement of this rule should be postponed to gain in Clatsop County sand dune areas until such time that the area is better prepared to deal with the growth that would

Septic tank law *Astorian 9-15-76* changes to be aired

A proposed change in Oregon's septic tank rules making it easier for some substandard lots to meet subsurface sewage requirements will be the subject of a special hearing in Astoria next Wednesday.

The hearing will be at 10 a.m. in the Flag Room of Astor Library before staff members of the Oregon Dept. of Environmental Quality.

The rule change would allow a developer to build-up a lot or parcel of land with native soil, obtaining the necessary distance between the septic tank drain field and the ground water called for by the rules.

Presently, areas along Oregon's coast and parts of Eastern Oregon have sandy soils and high water tables that don't conform with the minimum distance between the drain fields and ground water.

Also on Wednesday, a hearing will be held in Salem to make permanent an increase in septic tank fees which has been in effect since July.

At that time, construction permits were raised from \$50 to \$75, alteration or repair permits were raised from \$15 to \$25 and an evaluation report went from \$25 to \$37.50.

The Salem hearing will be held in DEQ's conference room of the North Coast

region office, 798 Winter Street, N.W., Salem.

Written testimony on the proposed rule change and fee increase will be accepted by DEQ up to Wednesday. It would be addressed to DEQ, subsurface sewage section, 1234 S.W. Morrison, Portland, 97205.

Copies of the proposed rule change may be obtained from the Clatsop County Health Dept., 857 Commercial, Astoria.

RECEIVED
SEP 15 1976
ASTORIA

Gearhart,
Oregon 97138

19 December 1976

Joseph Richards, Chairman
Environmental Quality Commission
1234 S. W. Morrison
Portland, Oregon

Dear Mr. Chairman:

When a State government agency makes a decision that affects local government policy, it should be defensible by the local governments.

Such is not the case with the EQC decision of October 15, 1976 to add a new subsection to OAR 340, Division 7, Section 71-030 permitting septic tank installations in sand fill in coastal areas. To my knowledge we were not contacted for a conference or for an on-site inspection of the lands affected in the Gearhart area.

The policies of LCDC and of the entire State land management program are based upon openness and citizen input. I feel your agency has not complied by this. The "sand-on-sand" rule change may basically be effective in some parts of the State, but you have an obligation to confer with all areas at open, well-advertised hearings where the people living in the affected areas may have an opportunity to publicly support it or oppose it.

Sincerely,

Nancy L. Black

Nancy L. Black

(Member, Gearhart City Council)

To: Environmental Quality Commission

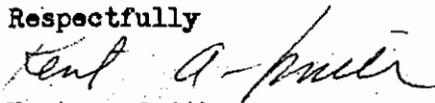
Gentlemen:

As city councilman for the city of Gearhart, I would like to express my regret in the decision to rescind the restriction of sand on sand fill effective January 1, 1977.

I believe this to be an unsound practice from the standpoint of our situation here; the addition of increased septic tank systems resulting from this decision in Gearhart is a very real concern, and will undoubtedly frustrate our efforts in local planning, which is in the very early stages now.

I urge that you reconsider this issue, by taking into account all areas which will be affected, especially areas which have very fragile eco-systems on the Oregon North Coast.

Respectfully


Kent A. Smith

A total of 213 questionnaires were returned by the citizens of Gearhart. This return amounts to 42% of the 500 questionnaires that were distributed to the citizens on Memorial Weekend. Of those questionnaires returned, 39.4% were by seasonal residents and 60.6% were permanent residents.

The Citizens Involvement Committee of Gearhart would like to thank all of the citizens who participated in the survey. This information will be incorporated into the Gearhart Comprehensive Plan as well as being forwarded to the City Council for their information.

Tabulated below are the results of the survey shown as percentages. The figures in the column titled Total Responding represent the total number of people who answered the question out of the total number of questionnaires returned. The answers have been divided into two categories: S representing answers given by seasonal residents and P representing answers given by permanent residents.

TOTAL RESPONDING		RESPONSES		QUESTIONS
S	P	S	P	
100%	100%			1) Are you a seasonal or permanent resident of Gearhart?
				2) Do you or a member of your family own/rent your home?
100%	100%	100%	84.5%	Own
			15.5%	Rent
				3) If you are a permanent resident, have you lived in Clatsop County
		100%	15.5%	a. all your life
			41.9%	b. more than 10 years
			13.2%	c. 5-10 years
			25.6%	d. 1-5 years
			3.8%	e. less than one year?
				4) If you are a permanent resident, do you plan to stay in Gearhart
96.9%		82.4%		a. indefinitely
		9.6%		b. more than 5 years
		7.2%		c. 1-5 years
		.8%		d. less than 1 year?
				5) If you moved to Gearhart in the last 5 years, why did you come?
69%		16.8%		a. job
		25.8%		b. retirement
		42.7%		c. environment
		5.7%		d. low taxes
		9.0%		e. other (specify)?
				2-"housing availability"
				1-"rental availability"
				1-"formerly fewer houses in Gearhart"
				1-"good access to jobs in Seaside & Astoria"
				1-"no work anywhere-needed to get out of the city"
				2-"came to live with relatives"
				6) Do you think Gearhart has a unique appearance, atmosphere, character, environment and life-style that should be preserved?
98.8%	96.9%	100%	93.6%	Yes
			3.2%	No
			3.2%	Not sure

TOTAL RESPONDING		RESPONSES		QUESTIONS
S	P	S	P	
100%	94.6%	6.0%	9.8%	7) For the commercial zones of Gearhart, do you favor
		59.5%	66.4%	free growth
		34.5%	23.8%	controlled growth
				no growth
100%	98.4%	8.3%	13.4%	8) For the residential zones of Gearhart, do you favor
		65.5%	69.3%	free growth
		26.2%	17.3%	controlled growth
				no growth
96.4%	87.6%	25.9%	28.3%	9) For the agricultural zones of Gearhart, do you favor
		67.9%	61.1%	free growth
		6.2%	10.6%	controlled growth
				no growth
98.8%	96.9%	85.5%	83.2%	10) Do you favor a limitation on building development in order to conserve wooded and open space and to preserve the character of Gearhart?
		3.7%	10.4%	Yes
		10.8%	6.6%	No
				Not sure
				11) If you answered "yes" to question 10, check the method(s) of limitation which seem best to you:
				a. Changes in zoning
		11.3%	9.1%	i. Down-zoning from commercial to residential
		5.8%	4.3%	ii. Downzoning from residential to agricultural
		12.7%	11.1%	iii. Green-belt zoning on the outskirts (could involve down-zoning of industrial)
		9.8%	13.1%	b. Scenic easements, riparian (riverbank), fishing, or flood-plain easements
		11.3%	12.2%	c. An annual limit on the number of new building starts (as in Petaluma, Calif.)
		10.7%	12.3%	d. A temporary moratorium (prohibition) on all new building until conservation of space has been publicly discussed and decisions made
		.8%	2.8%	e. A permanent moratorium on all new building
		9.3%	9.1%	f. Permanent acquisition of land by the City through purchase at market value (perhaps aided by federal or state open space grants)
		10.3%	10.0%	g. Permanent gifts of land to the City (with tax incentives for the donor)
		17.2%	14.2%	h. Increase minimum building lot size to more than the current 5000 square feet
		.8%	1.8%	i. Other (specify):
				2-"Prohibit seasonal homes"
				1-"Prohibit condominiums"
				1-"Limit multi-family housing"
				1-"No multi-family/high density zoning"
				1-"Impose limits through water situation"
				1-"Impose limits through increase setback requirements"
				1-"Prohibit houses below cost standard of surrounding neighborhood"
				1-"Don't increase minimum building lot size"
				1-"Use common sense"

TOTAL RESPONDING		RESPONSES		QUESTIONS
S	P	S	P	
89.3%	87.6%	64.0%	55.7%	12) Would you be willing to pay more taxes to preserve Gearhart the way it is now?
		36.0%	44.3%	Yes No
95.2%	91.5%	47.5%	39.0%	13) Do you own one or more unimproved lots in Gearhart of at least 5000 square feet?
		52.5%	61.0%	Yes No
42.9%	38.0%	8.4%	6.1%	14) If you answered "yes" to question 13, would you donate any of your land to the City (given tax incentives and the provision that the land returns to you unless kept open)?
		-----	-----	Some All None Not sure
		61.1%	63.3%	
		30.5%	26.5%	
61.9%	65.9%	9.6%	10.6%	15) Would you consider willing your property to the City to be kept as permanent open space?
		90.4%	89.4%	Yes No
88.1%	93.0%	74.3%	56.6%	16) Do you favor a design review board which would review all building plans prior to issuance of a permit to build in Gearhart?
		25.7%	43.4%	Yes No
				17) If you answered "yes" to question 16, name some requirements this board might enforce:

SEASONAL RESIDENTS:

- 1-"Prohibit development of Gearhart"
- 1-"Prohibit 'shacks'"
- 1-"Prohibit 'gooky' houses"
- 1-"Prohibit 'ticky-tacky' houses"
- 1-"Prohibit mobile homes"
- 1-"Prohibit condominiums"
- 1-"Prohibit housing for hippies and blacks"
- 1-"Prohibit bizarre designs"
- 3-"Establish good design criteria"
- 7-"Make new houses conform to design of existing homes"
- 1-"Require shake or shingle exterior"
- 4-"Establish size criteria"
- 3-"Establish minimum square footage for houses"
- 1-"Require 700 foot minimum"
- 1-"Require 1500 square foot minimum"
- 14-"Establish height criteria"
- 1-"Establish height criteria for ocean front"
- 1-"Require 1 storey maximum height"
- 1-"Prohibit visual obstruction"
- 1-"Prohibit campers"
- 1-"Prohibit building on dunes"
- 3-"Require landscaping"
- 1-"Prohibit clash with Gearhart's natural look"
- 1-"Assure ample green space"
- 4-"Establish setback requirements"
- 2-"Require proper placement of house on lot"
- 1-"Prohibit more than one building per lot"

TOTAL RESPONDING		RESPONSES		QUESTIONS
S	P	S	P	
				17) Cont.
				1-"Maintain 5000 square foot building lot requirement"
				1-"Establish 10,000 square foot building lot requirement"
				4-"Establish criteria for sanitary needs"
				1-"Enforce building & sanitary codes"
				1-"Establish building use criteria"
				1-"Require commercial building as necessary"
				PERMANENT RESIDENTS:
				10-"Design the building to suit its environment of land, trees, and houses"
				4-"No tract housing like Woodland Avenue"
				1-"No chain link fences"
				2-"Require landscaping in proportion to building cost"
				7-"Strict adherence to building & sanitary codes"
				2-"Strict adherence to zoning ordinance"
				1-"Establish minimum and maximum lot size"
				3-"10,000 square foot building lot minimum"
				1-"Maintain low density of houses"
				1-"Maintain low population density"
				11-"Limit height of building"
				1-"Limit number of bedrooms"
				1-"At least 2 bedrooms, 1½ baths and 1200 square feet"
				2-"Limit overall size of building"
				1-"No view blocking"
				3-"No more crackerboxes"
				1-"No more condominiums"
				1-"No more duplexes"
				2-"No more mobile homes"
				1-"No more pre-fabricated ranch styles"
				1-"Single family dwellings only"
				2-"Preserve the old styles"
				1-"Consider quality of building materials"
				1-"No unpainted buildings"
				1-"Eye-pleasing exterior siding"
				1-"All natural wood exterior"
				1-"Only unpainted shakes or shingles for exterior siding"
				1-"No undisguised metal frames, doors, or gutters"
				1-"Five foot minimum vertically between roof peak and eave ends"
				1-"Five foot minimum between roof peak and eave ends in town between beach and creek"
				1-"No purple or pink exteriors"
				2-"Establish appearance standards for industrial and commercial building"
				1-"No low-cost housing"
				1-"\$35,000 minimum housing cost"
				2-"New building not to depreciate surrounding property"
				1-"No more building until water resources are improved"
				1-"No septic system within 100 feet of creek"
				1-"No public sanitary sewer within 200 feet of water line or river"
				1-"No adding of bedrooms until sewer comes"
				1-"No housing starts by developers-only residents"
				1-"Consider parking accommodations"
				2-"Design reviewers to have quality design and artistic credentials"

TOTAL RESPONDING		RESPONSES		QUESTIONS
S	P	S	P	
97.6%	93.8%	42.7%	34.7%	18) Would you support a bond issue to finance the proposed sanitary sewer for Gearhart?
		36.6%	42.1%	Yes
		20.7%	23.2%	No
				Not sure
40.5%	52.7%	61.7%	63.2%	19) If you answered "no" to question 18, do you favor alternative approaches to the problem of sanitation and water pollution in Gearhart, such as inspection and upgrading to existing septic systems?
		20.6%	19.1%	Yes
		17.7%	17.7%	No
				Not sure
96.4%	98.4%	83.9%	92.1%	20) Check if you
		51.6%	37.1%	a. use biodegradable household products
		29.7%	19.7%	b. recycle your glass and tin cans
		8.8%	23.5%	c. compost your garbage
		9.9%	19.7%	d. have a kitchen garden
				21) If there was a depository in Gearhart, would you recycle your glass, cans and paper?
		6.2%	1.6%	Yes
		9.9%	6.3%	No
				Not sure
47.6%	93.0%	35.0%	30.8%	22) Check if you would donate time, suggestions and resources to
		----	23.3%	a. a Gearhart library/historical museum
		17.5%	10.8%	b. a Gearhart child care center
		35.0%	29.2%	c. a Gearhart amateur theater group
		12.5%	5.9%	d. a Gearhart community recreation center
				e. other(specify):
				1-"Clean up Neacoxie River"
				1-"Land rehabilitation project"
				1-"Develop parks"
				1-"Join Seaside parks & recreation facilities"
				2-"More child recreation facilities"
				1-"Fossum extermination"
				23) Would you support a bond issue for any of the above? Specify:
				58 would not support bond issue
				19 would support for library/museum
				10 would support for child care center
				8 would support for amateur theater
				11 would support for community center
				1 would support to clean up Neacoxie
				1 would support for land rehabilitation
				1 would support to develop parks
				1 would support to join Seaside parks
				2 would support for child recreation facilities
				1 would support for possum extermination
89.3%	86.0%	---	6.4%	24) Do you attend meetings of the Gearhart City Council (first Wednesday every month, City Hall, 7:30 P.M.)?
		32.0%	50.4%	Often
		68.0%	43.2%	Sometimes
				Never

TOTAL RESPONDING		RESPONSES		QUESTIONS
S	P	S	P	
88.1%	82.2%	----	9.4%	25) Do you attend meetings of the Gearhart Planning Commission (last Wednesday every month, City Hall, 7:30 P.M.)?
		23.0%	28.3%	Often
		77.0%	62.3%	Sometimes
				Never
89.3%	93.0%	1.4%	60.8%	26) Do you read Clatsop County newspapers
		1.4%	10.8%	a. daily
		14.6%	20.8%	b. more than once a week
		82.6%	7.6%	c. once a week
				d. less than once a week
81.0%	86.8%	86.7%	72.3%	27) Is the head of your household
		6.0%	11.6%	a. a married man
		----	8.9%	b. a married woman
		7.3%	7.2%	c. a single man
				d. a single woman?
79.8%	79.8%	1.5%	3.9%	28) What was the total income of your household last year?
		----	9.7%	a. Less than \$3,600
		7.5%	20.4%	b. \$3,600 - 5,999
		8.9%	30.1%	c. \$6,000 - 9,999
		82.1%	35.9%	d. \$10,000 - 15,000
				e. Over \$15,000
75.0%	72.9%	3.2%	1.2%	29) Estimate your average monthly housing costs (rent, utilities, mortgage payment, insurance, major repairs, real estate taxes, etc.):
		3.2%	3.2%	a. \$0 - 59
		3.2%	3.2%	b. \$60 - 79
		11.1%	7.4%	c. \$80 - 99
		7.9%	7.4%	d. \$100 - 119
		5.1%	6.4%	e. \$120 - 149
		14.3%	23.4%	f. \$150 - 199
		6.3%	9.6%	g. \$200 - 249
		12.7%	12.7%	h. \$250 - 299
		33.0%	25.5%	i. \$300 - 349
				j. \$350 - over
83.3%	84.5%	1.5%	----	30) Describe your home:
		98.5%	95.5%	a. Apartment
		----	.9%	b. House
		----	.9%	c. Duplex
		----	1.8%	d. 3-plex or 4-plex
		----	.9%	e. Mobile home
				f. Other:
73.8%	96.4%	1.7%	----	31) What type of housing do you prefer?
		96.6%	91.3%	a. Apartment
		1.7%	1.3%	b. House
		----	----	c. Duplex
		----	3.7%	d. 3-plex or 4-plex
		----	3.7%	e. Mobile home
				f. Other:
82.1%	79.8%	6.0%	15.5%	32) How old is the main part of your present dwelling?
		10.1%	13.6%	a. Less than 5 years
		10.1%	5.9%	b. 5 - 10 years
		13.0%	23.3%	c. 10 - 15 years
		60.8%	41.7%	d. 15 - 30 years
				e. Over 30 years

TOTAL RESPONDING		RESPONSES		QUESTIONS
S	P	S	P	
82.0%	79.8%	1.5%	4.9%	33) How many bedrooms does your dwelling have?
		14.5%	23.3%	a. One
		24.6%	40.7%	b. Two
		59.4%	31.1%	c. Three
		-----	-----	d. Four or more
				e. None
82.1%	83.7%	81.1%	85.2%	34) Is the foundation of the main part of your dwelling
		-----	1.8%	a. concrete/block
		18.9%	12.0%	b. rock
		-----	1.0%	c. wood
				d. none
79.8%	82.9%	65.6%	79.4%	35) Describe the condition of your foundation:
		29.8%	14.9%	a. Good
		4.6%	5.7%	b. Average
				c. Needs major repair
84.5%	88.4%	-----	.9%	36) Does your drinking water come from
		100%	99.1%	a. A well
				b. City water?
		13.9%	16.2%	37) What kind of housing is most needed in Gearhart?
		37.9%	31.3%	Check all that apply.
		8.8%	19.3%	a. Homes to buy under \$20,000
		-----	9.0%	b. Homes to buy over \$20,000
		-----	3.2%	c. Homes to rent
		-----		d. Duplexes
		5.2%	5.4%	e. Apartments
		34.2%	15.6%	f. Mobile homes
				g. No more housing

PERMANENT RESIDENTS:

NOT ENOUGH	ENOUGH	MORE THAN ENOUGH	TOO MUCH	
23.8%	71.5%	4.7%		a. Street paving, widening & maintenance
33.0%	63.0%	4.0%		b. Storm sewers & culverts
45.7%	47.6%	6.6%		c. Trees along streets
27.6%	66.6%	5.8%		d. Sidewalks & curbs
22.6%	73.6%	3.8%		e. Street lighting
7.5%	90.6%	1.9%		f. Fire protection
15.6%	80.7%	3.7%		g. Police protection
13.2%	84.7%	2.1%		h. Public meeting places
58.1%	35.2%	6.7%		i. Dog control
7.7%	87.5%	4.8%		j. Parking availability
35.8%	61.3%	2.9%		k. City parks
38.2%	52.9%	8.9%		l. Choice of housing for new residents

SEASONAL RESIDENTS:

4.9%	88.8%	6.3%		a. Street paving, widening & maintenance
11.6%	86.6%	1.8%		b. Storm sewers & culverts
35.6%	62.7%	1.5%		c. Trees along streets
6.1%	92.3%	1.6%		d. Sidewalks & curbs
9.1%	81.8%	9.1%		e. Street lighting
7.1%	91.4%	1.5%		f. Fire protection
4.3%	94.2%	1.5%		g. Police protection
7.9%	90.5%	1.6%		h. Public meeting places
38.5%	60.0%	1.5%		i. Dog control
4.6%	89.5%	5.9%		j. Parking availability
16.6%	81.8%	1.6%		k. City parks
13.8%	74.1%	12.1%		l. Choice of housing for new residents

39) Rate the following for Gearhart:

POOR	FAIR	GOOD	
PERMANENT RESIDENTS:			
6.5%	24.1%	69.4%	a. Garbage collection
9.8%	11.6%	78.6%	b. City water supply
2.0%	11.5%	86.5%	c. School
15.3%	24.5%	60.2%	d. City government
14.3%	23.6%	62.1%	e. City planning
SEASONAL RESIDENTS:			
6.9%	16.4%	76.7%	a. Garbage collection
2.8%	16.4%	80.8%	b. City water supply
-----	4.6%	95.4%	c. School
1.7%	17.7%	60.6%	d. City government
11.5%	13.1%	75.4%	e. City planning

40) Please suggest things which would make Gearhart a better place to live in; or any other comments you want to make (optional):

PERMANENT RESIDENTS:

Comments on Housing:

- a. Comments on single-family density
 - 1 - Against houses too close together
 - 1 - Against big houses on small lots
 - 2 - Against any more building
 - 1 - Against any more building before sewer
 - 2 - For 10,000 square foot minimum lot except owners of single 50 x 100 lots before passage of such ordinance
 - 1 - For strict adherence to building and sanitary codes
 - 1 - Favors controlled building density
 - 2 - Favor controlled population density
 - 1 - Favors purchase of seasonal homes by permanent residents rather than building new houses
 - 1 - Has already donated open land to the city
 - 1 - Favors building every 50 x 100 lot in town
 - 1 - Against annual limit on building starts
 - 2 - Against moratorium
- b. Comments on multi-family dwellings
 - 1 - Favors more restriction on multi-family dwellings
 - 2 - Against any multi-family dwellings
 - 5 - Too many condominiums
 - 1 - Against duplexes on 50 x 100 lots
 - 1 - Duplexes should be more attractive
 - 1 - Against motels
- c. Comments on quality of housing
 - 1 - Favors better quality homes
 - 1 - Finds homes under \$20,000 impossible to find
 - 3 - Want new houses to match atmosphere of old
 - 2 - Against mobile homes
 - 1 - Against design review
- d. Comments on developers
 - 4 - All houses should be owner-built, no permits for developers
 - 1 - Favors limiting developments
 - 2 - Fear developers will make Gearhart like Seaside or Cannon Beach

Comments on Public Land and Recreation Facilities

- 3 - Need more park facilities & upkeep
- 1 - Need master plan for parks
- 1 - City should acquire area along Neacoxie for park/playground

40) Cont.

Comments on Public Land and Recreation Facilities (cont.)

- 1 - Dune Meadows and nearby park areas should be better marked as park
- 1 - Plant flowers around tennis courts
- 1 - Control tennis court use
- 1 - Condominiums should build their own tennis courts
- 1 - Tennis courts should be illuminated
- 1 - Favors more trees along streets
- 2 - Trees near houses on beach front should be trimmed when they obstruct sea view from houses behind
- 1 - Need city landscaping
- 1 - Need some landscaping of Ridge Path
- 1 - Restore Ridge Path beside City Hall
- 1 - Wants less driving on north end of beach
- 1 - Leave beach for locals - bogs for tourists

Comments on Public Thoroughfares

- 1 - Favors public transportation system
- 1 - Favors more paths and fewer streets
- 1 - Favors tighter traffic control
- 1 - Favors tighter noise control
- 1 - Favors bumps in streets to limit speed
- 1 - Against further improvement of streets & sidewalks
- 1 - Sidewalk needed only on Cottage Avenue
- 1 - Culverts need cleaning
- 1 - More street lights needed between Cottage and Marion
- 1 - Restore street light at 10th and Marion

Comments on Garbage Disposal

- 1 - Mandatory garbage collection for all
- 1 - City should provide garbage cans for tourist litter
- 1 - Seasonal residents should pay for and attend to their own garbage disposal

Comments on City Government

- 2 - Against increasing regimentation due to big-city style government
- 1 - Fears threat of recent City Government projects
- 1 - Gearhart should mean more to officials than just tax rolls & money
- 1 - More citizen involvement needed
- 2 - Need to get more seasonal taxpayers involved
- 1 - Would donate more time to City government
- 1 - Better City government needed
- 1 - The City should stake out more interest in County land for sale in Gearhart
- 1 - Pay councilmen to work harder and care more
- 1 - Better land and water resource management needed
- 1 - Fears tax burden on retired citizens
- 1 - Favors open hearings for garbage and water rate increases
- 2 - City needs better legal advice
- 1 - City attorney inhibits citizen participation in government
- 1 - City planning poor
- 1 - City planning excellent
- 1 - Favors more authority for Planning Commission

Comments on Police

- 1 - Gearhart police excellent
- 2 - Better police patrol and protection needed
- 1 - Against police cars beachcombing at south end of beach

Comments on Proposed Sewer

- 2 - Fear sewer
- 1 - Against sewer because hookups may be too costly
- 1 - Against sewer because it will bring more houses & "visual pollution"
- 1 - Homeowners should learn to take care of septic tanks
- 1 - More investigation of alternatives to sewer needed
- 1 - Well maintained sewer needed
- 1 - Sewer needed to improve property, sanitation and waterways

40) Cont.

Comments on Dog Control

- 11 - Favor more dog control
- 1 - Seasonal residents should be informed of leash laws
- 1 - Too much dog control now
- 1 - Doesn't mind animals & kids

Comments on Gearhart Businesses

- 1 - More businesses needed
- 2 - Against uncontrolled commercialism
- 2 - Drugstore needed
- 1 - Another grocery needed
- 1 - Delicatessen needed
- 1 - Family restaurant needed
- 1 - Cafe needed
- 1 - Bookstore needed
- 1 - Tourist shops should be emphasized
- 1 - Objects to bowling alley

Comments on the Questionnaire

- 3 - Good questionnaire
- 2 - Bad questionnaire
- 2 - Questions are nobody's business
- 1 - Objects to anonymity of questionnaire
- 1 - Question #6 not specific
- 1 - Questions #7, #8, #9 not clear
- 1 - Question #12 not clear
- 1 - Question #12 not fair

Comments on City Water

- 1 - Water very good
- 2 - Water poor
- 1 - Water should be tested
- 1 - Remove fluoridation from water
- 1 - City should provide fluoride and instruction for its use only for those who want it
- 1 - Objects to poor water pressure during high use periods
- 1 - Water storage facility needed
- 1 - Better water supply needed before further development

General Comments

- 6 - Don't change Gearhart
- 2 - Maintain quiet, low-key life style in Gearhart
- 2 - Avoid hippie atmosphere
- 3 - General clean-up and landscaping needed
- 2 - Against tourist-oriented projects
- 1 - Against projects without need

SEASONAL RESIDENTS

Comments on Gearhart in General

- 1 - Against more new residents
- 11 - Keep Gearhart the way it is
- 1 - Keep Gearhart a family town rather than resort town
- 5 - Keep the sleepy seacoast atmosphere
- 2 - Keep growth slow and orderly
- 1 - Favors plan to enhance appearance of Gearhart, especially in the Commercial areas

Comments on Gearhart Commercial Areas

- 1 - Against high density commercial development
- 1 - Against strip development on Highway 101
- 1 - Favors Cannon Beach-style commercial areas
- 1 - Favors tea room, dress shop, gift shoppe, bakery, near post office in quaint courtyard setting

40) Cont,

Comments on Building Development

- 5 - Against more condominiums
- 3 - Against high-density suburban-style housing
- 1 - Against more duplexes
- 1 - Against more motels
- 1 - Against development between Ocean Avenue and Beach
- 1 - Favors strict control of building on Ocean Avenue and near Ocean Avenue lots
- 1 - Against Windjammer motel and restaurant being left to deteriorate
- 1 - Favors building of a convention center
- 1 - Regrets loss of Gearhart Hotel, bar, and restaurant

Comments on City Services

- 1 - Against more road construction
- 2 - Favor more dog control
- 1 - Against sewer
- 3 - Against sewer until there is a moratorium on new building
- 1 - Against street lights being on during daylight hours
- 1 - Against City Police cars beachcombing where residents can't drive

Comments on Traffic Control

- 1 - Against motorcycles within city limits
- 1 - Favors reduced speed limit on side streets
- 1 - Favors more traffic control on Marion Avenue between Pacific Way and 10th Street
- 1 - Favors widening of Ocean Avenue with more traffic control to protect pedestrians

Comments on City Landscaping

- 1 - Favors grassy mall dividing Pacific Way in front of City Hall
- 1 - Favors more trees on Cottage Avenue
- 1 - Favors preservation of open meadows in town

Comments on Parks and Recreation

- 1 - Favors recreation center for all ages with swimming pool and tennis courts
- 1 - Favors new indoor tennis court
- 1 - Favors picnic tables in the city parks
- 1 - Favors better road access to beach
- 1 - Favors prohibition on clamming

Comments on City Government

- 1 - Against any more bond issues
- 1 - City planners should be more sensitive and aware
- 2 - Government should not interfere with residents
- 1 - City government should work with Gearhart Homeowners Association, not with "new splinter group"