RESPONSE TO COMMENTS
RECEIVED DURING THE PUBLIC COMMENT PERIOD

City of Chehalis, NPDES Permit No. WA-002110-5
City of Centralia, NPDES Permit No. WA-002098-2
Darigold, NPDES Permit No. WA-003747-8

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I.1. INTRODUCTIONS

The Department of Ecology (Ecology) has completed the NPDES Waste Discharge Permits (drafts dated December 8, 1995) for the City of Chehalis, the City of Centralia, and Darigold. Comments were accepted on the draft permit for a 30-day period. This comment period was extended due to the extent of the permit changes and its relationship to the TMDL study. Final comment letters were received dated February 12, 1996.

After a review of these comments, the permits have been revised as appropriate. A summary of Ecology's response to the comments is provided below. Since many of the comments from the City of Chehalis, the City of Centralia, and Darigold are similar, this document will attempt to paraphrase, combine, and condense their comments.

I.2. SUMMARY LIST OF ALL PARTIES SUBMITTING COMMENTS

A. At the close of the public comment period, Ecology had received comments from the following:

1. City of Chehalis
2. City of Centralia
3. Darigold
4. Dave Ragsdale, EPA/WOO
5. Don Schluter, Trout Unlimited
6. State Senator Dan Sweker, 20th Legislative District
7. U.S. Representative Linda Smith, Third District
8. Lewis County Commissioners
9. Lewis County Economic Development Council
10. Thomas E. Schneider, Chehalis Power Inc.
11. Preston, Gates & Ellis, Attorneys

II. COLLECTIVE COMMENTS REQUIRING COMPREHENSIVE DEPARTMENT RESPONSE

II.1. LETTER FROM EPA (DATED JANUARY 25, 1996)

COMMENT: It does not appear that the permits contain the appropriate (final) water quality-based effluent limitations for BOD and ammonia. Specifically, the proposed permit limitations do not reflect the fact sheet and TMDL determination that no seasonal loading is available for these parameters. As you know, 40 CFR 122.44 (d) requires that permits must contain limitations necessary to protect receiving water quality. A schedule for compliance to achieve such limitations may be established in the permit if the schedule does not exceed the five year duration of the permit. Schedules which exceed can be established by other formal enforcement mechanisms.

RESPONSE: The permits will be revised to include the following final effluent limitations and a schedule for compliance. However, a reasonable eight year compliance schedule will be incorporated into the permit instead of a five year compliance schedule. The City of Centralia cannot meet compliance within the permit term because of the extent of the work that needs to be accomplished and Ecology agrees. The City is also negotiating with the state Department of Transportation for widening the freeway through Centralia. This would require that the WWTP be

relocated. If this happens, the City would have to construct a new facility that would meet water quality-based effluent limitations when completed.

The TMDL limitations for BOD for Maximum Daily discharge loadings to the receiving water is assumed to be equivalent to the Weekly Average for the purpose of this permit. With only a sampling frequency of three test per week, the BOD loadings to the river during the critical period will not be significantly changed. The recommendations in the Puyallup River TMDL established a precedence for this assumption.

SPREADSHEET FOR WATER QUALITY-BASED EFFLUENT LIMITATIONS

* The attached spreadsheet calculates water quality based permit limits based on the two value steady state model using the state Water Quality Standards contained in WAC 173-201A. The procedure and calculations are done per the procedures in Technical Support Document for Water Quality-based Toxics Control, U.S. EPA, March 1991 (EPA/505/2-90) on page 99.

FINAL EFFLUENT LIMITATIONS

The final effluent limitations for the City of Centralia's WWTP are based on the TMDL recommendations for the critical period May through October. The final limitations for ammonia are also based on the TMDL recommendations and the toxicity limits as calculated in the attached spreadsheet* and are as follows:

May through October

Parameter	Monthly Average[a]	Weekly Average[a]
BOD5	0.00 lbs/day	0.00 lbs/day
TSS[b]	25 mg/L, 417 lbs/day	37.5 mg/L, 626 lbs/day
Fecal C.	200/100 mL	400/100 mL
pH	shall not be outside the range 6.0 to 9.0	

Parameter	Monthly Average[a]	Daily Maximum
Chlorine	0.021 mg/L	0.023 mg/L
Ammonia	0.00 mg/L	0.00 lbs/day

November through April

Parameter	Monthly Average[a]	Weekly Average[a]
BOD5[c]	30 mg/L, 732 lbs/day	45 mg/L, 1098 lbs/day
TSS[c]	30 mg/L, 768 lbs/day	52.5 mg/L, 1152 lbs/day
Fecal C.	200/100 mL	400/100 mL
pH	shall not be outside the range 6.0 to 9.0	

Parameter	Monthly Average	Daily Maximum
Chlorine	0.023 mg/L	0.026 mg/L
Ammonia	14.6 mg/L	16.0 mg/L

[a] The average monthly and weekly effluent limitations are based on the arithmetic mean of the samples taken with the exception of fecal coliform, which is based on the geometric mean.

[b] The average monthly effluent concentration for Total Suspended Solids shall not exceed 25 mg/L or 15 percent of the respective monthly average influent concentrations, whichever is more stringent.

[c] The average monthly effluent concentration for BOD_5 and Total Suspended Solids shall not exceed 30 mg/L or 15 percent of the respective monthly average influent concentrations, whichever is more stringent.

SCHEDULE FOR MEETING FINAL EFFLUENT LIMITS

Ecology has determined that a schedule will be required to ensure final compliance with the water quality-based effluent limits in the shortest practicable time. Meeting the final effluent limits will require the permittee to plan, design, and construct necessary treatment capability. Therefore, Ecology has included the following extended schedule to (eight years from the date of issuance of this permit) for compliance with the final effluent limitations:

Item	Completion Date
Facility Planning and Engineering Report	
1st Progress Report	(1 yr from issuance date)
2nd Progress Report	(2 yrs from issuance date)
Draft Report	(2-1/2 yrs from issuance date)
Approval of Final Report	(3 yrs from issuance date)
Plans and Specifications	
50 % Draft Plans and Specifications.	(4 yrs from issuance date)
Final Draft	(4 yrs- two months from issuance date)
Approval of Plans and Specifications	(4-1/2 yrs from issuance date)
Construction	
Start Construction	(5 yrs from issuance date)
Progress Report (50% Const.?)	(6 yrs from issuance date)
Completion of Construction	(7 yrs from issuance date)
Compliance with Final Effluent Limits	(8 yrs from issuance date)

II.2. LETTER FROM TROUT UNLIMITED (DATED DECEMBER 29, 1995)

COMMENT: ...We at the Washington State Council of Trout Unlimited, can not believe that the Dept. of Ecology would agree to issue a permit to discharge into our state and national waterway, of the Chehalis River in light of the Chehalis River Basin Fishery Resources Study, U.S.F.W.S. Oct. 1992. The study documented the adverse conditions of in the (dead zone) the body of the Chehalis River between Centralia, and Chehalis in which high temperatures, nutrient loading and lack of Oxygen were killing large numbers of anadromous and resident fish. The latter TMDL study done by D.O.E. confirmed these findings, and found that the cities of Chehalis and Centralia sewer

treatment facilities were not in compliance under the Clean Water Act. The review by our staff to allow a NPDES permit in our opinion is in direct violation of provisions under Chapter 90.48. Code of Washington, and in violation of the Clean Water Act, we therefore must ask for a public hearing on this permit. The timing of compliance in this matter is not subject to the Dept. of Ecology interpretation, it is mandated by state and federal law.

RESPONSE: The proposed permit is not an issuance of a NPDES permit as a new discharge to the Chehalis River. The permit is a reissuance of the existing municipal wastewater permit with more stringent effluent limitations dictated by the findings and recommendations of the recently completed Total Maximum Daily Load (TMDL) study of the Chehalis River These limitations are particularly important during the critical period, May through October. Because of these recommendations, subsequent determination of potential for pollutants to exceed water quality standards and EPA and state regulations, the final permit will include final effluent limitations and a schedule for compliance with the interim limits based on operational capability of the facility. The compliance schedule in the permit is the most direct approach for achieving compliance with water quality standards in the shortest, reasonable period of time. See response to EPA's and City's comment, above, regarding final effluent limitations.

State and federal laws do allow Ecology to issue permits that include interim and final effluent limitations to meet water quality standards with compliance schedules. Refer to Responses to EPA Comment for final limits and schedule for compliance.

The City of Chehalis is presently under a state consent order to remove all excessive inflow and infiltration (I/I) from their sewerage system and to meet water quality standards by December 31, 1998. Excessive I/I is defined as all extraneous inflow and infiltration sources that can be cost effectively removed. This means that the City shall identify and remove sources of I/I to a level that it becomes less expensive to transport the remaining I/I flows to the treatment facility for treatment and disposal. The City has, at this time, determined that all excessive I/I projects have been identified and all excessive I/I will be removed with the latest round of construction projects. The problem then becomes, can the City afford the cost to upgrade the facility to meet the effluent standards and the additional I/I flows, as well as the TMDL recommendations to remove the discharge from the "Centralia Reach" of the Chehalis River? Ecology and EPA have reached an agreement to require the cities (and Darigold) to meet the TMDL recommendations and water quality standards in the Chehalis River by an agreed upon compliance date.

Ecology acknowledges the request for a public hearing on the City of Chehalis' draft NPDES permit. The concerns addressed above in the comment for removal of the discharge due to low dissolved oxygen in the receiving water have been adequately considered in the final permit. Unless significant additional requests (WAC 173-220-090) for a public hearing are received, the inclusion of final water quality effluent limitations, the TMDL recommendations, and a compliance schedule in the final NPDES permit is an adequate response to the above comment for a public hearing.

II.3. LETTERS COMMENTING IN SUPPORT OF CITY OF CHEHALIS

COMMENT: The next five letters were received by Ecology in support of the City of Chehalis' concerns for the TMDL recommendations and the cost to meet the final permit effluent limitations. These concerns included the TMDL review period, recommendations, and timetables for reaching the goals of the TMDL.

State Senator Dan Sweker, 20th Legislative District (dated September 25, 1995)
U.S. Representative Linda Smith, Third District (dated November 16, 1995)
Lewis County Commissioners (dated November 13, 1995)
Lewis County Economic Development Council (dated September 19, 1995)
Thomas E. Schneider, Chehalis Power Inc. (dated October 2, 1995)

RESPONSE: Ecology recognizes the importance of the support offered by the above commentors and has considered the collective concerns in Ecology's response to the individual issues raised by the cities and Darigold. Since these comments are expressed in more detail from the individual cities and Darigold, please refer to Ecology's detailed responses below.

II.4. PERMITTEE COLLECTIVE COMMENTS FROM CHEHALIS, CENTRALIA AND DARIGOLD

II.4.a. Introduction and Background

The following are the Ecology's Responses to Comments submitted by the City of Centralia (CNT), the City of Chehalis (CHE), and Darigold (DAR) on the draft permits (dated December 8, 1995). These comments were received by letters dated February 12, 1996, and responses were assembled from appropriate programs within Ecology that deals with the issues raised in the comment.

II.4.b. Total Maximum Daily Load (TMDL) Study

<u>INTRODUCTION (Section I in comments)</u>

Section I.A. Ecology's TMDL Recommendations

COMMENT: (CNT & CHE) For the reason set out below in Part II, Ecology's current TMDL recommendations should not form the bases of effluent limitations. The City of Centralia asks that Ecology work cooperatively with the cities of Chehalis and Centralia (Cities), Darigold, Inc. and other interested parties to review and revise its TMDL recommendations as appropriate.

RESPONSE: Ecology's TMDL recommendations are reasonable based on the usual and accepted standards of scientific analysis, and consistent with state and federal law. Therefore, Ecology is required to base its permit limitations on the TMDL. Responses to Part II are presented below.

Section I.B. Calendar-based Versus Hydraulically-based Effluent Limitations

COMMENT: (CNT & CHE) The City of Centralia is highly concerned with Ecology's proposed use of calendar months to delineate dry season effluent limitations rather than the use of hydraulically-based effluent limitations. Calendar-based effluent...expensive restrictions. Ecology's primary...low river flow. Therefore, the most efficient and fair...river flow levels. Otherwise, Ecology ends up...are not needed.

For example, during both May and October...high flow levels. Such unintentional overreaching river flows. Ecology has used...permits. Granted, such an approach...currently proposed.

RESPONSE: The EPA has established the 7Q10 flow as the level of protection required to statistically guarantee that permit limitations will not be exceeded more than once in a three year period. That is why, when seasonal limits are established, the 7Q20 flow is used. The seasonal (twice per year) 7Q20 is statistically equivalent to the once per year 7Q10 and provides the same level of protection to the receiving water. However, to statistically tie the limits to a monthly or daily equivalent flow would be economically improbable to accomplish. The facility would also have to have the ability to be able to immediately turn on certain operations or processes to achieve the desired limits based on a flow in the receiving water. As the City knows, biological process takes weeks to become operational and mechanical processes would be overly expensive. The bottom line is that the regulations were adopted to protect the surface waters of the state and to prevent discharge of pollutant at least 95 percent of the time.

The TMDL recommendations are based on the critical condition in the Chehalis River. This critical condition is the bases for the water quality limits placed in this permit. The TMDL has determined that the critical water quality period is between May 1 through October 31. The permit must be consistent to these TMDL recommendation. Therefore, the permit must also indicate the same critical receiving water period of May 1 through October 31. However, the permit was developed as a seasonal permit to allow for increased flows and loadings to be discharged into the Chehalis River during the non-critical period, November 1 through April 30.

WAC 173-201A-020 definition: "Critical conditions" is when the physical, chemical, and biological characteristics of the receiving water environment interact with the effluent to produce the greatest potential adverse impact on aquatic biota and existing or characteristic water uses. For steady-state discharges to riverine systems, such as Chehalis, the critical condition may be assumed to be the 7Q10 flow event unless determined otherwise by the department.

For the permit, the critical condition is defined as 7Q20 (seasonal) and occurs in the Chehalis River in May through October. To establish critical conditions based on river and treatment plant flows that have the same level of reasonable potential to cause adverse effects to the aquatic environment would not only be extremely difficult to design but also to monitor. The treatment facility would also be extremely difficult to design and control to increase treatment levels to meet changes to river or plant flows to achieve the level of protection to the Chehalis River provided for with the proposed critical condition. The Chehalis River in this area is very sensitive to minor changes from discharges due to its fragile conditions at low flow. Because of the possibility of treatment plant upsets during critical conditions in the river, it is imperative that the proposed level of reasonable potential be maintained; therefore, the calendar-based effluent limitation is recommended.

The TMDL analysis does not rule out the possibility of tying discharge requirements to flow. However, more analysis would be needed to determine the flow level where a significant amount of increased loading capacity becomes available and the potential for noncompliance becomes negligible. Also, the engineering and economic limitations of any implementation strategy may preclude an operation that can “turn off or turn on” as conditions change.

Section I.C. Mass Loadings and Concentration Limits

COMMENT: (CNT) Ecology has also proposed that ammonia effluent limitations be based on ammonia concentrations. Concentration-based effluent limitations are unnecessarily low and are based on an impossible combination of wastewater and river flows. Toxicity in the Chehalis River is primarily related to the mass discharge of ammonia in the wastewater effluent. The City of Centralia requests that ammonia effluent limits be based on the mass discharge.

RESPONSE: This is acceptable. The permit will be changed to reflect the mass loadings and not the concentrations. See revised limits in S1.

COMMENT: (CHE) (1) During periods of low flow, dissolved oxygen in the Chehalis River is impacted by the total mass (not concentration) of BOD and ammonia discharged into the river. Therefore, the effluent limitations for these two parameters should be established by mass only and be tied into river flow. (2) Furthermore, the waste load allocations should be tied together as data pairs for BOD and ammonia (at any given flow condition) and not be established independent of each other. (3) During high river flow conditions, technology based limits for both concentration and mass may be acceptable, provided such limits are based on alternative treatment standards for trickling filters.

RESPONSE: (1) Effluent limitations, water quality standards, and other requirements for permits, WAC 173-220-130, Domestic Wastewater Facility Discharge Standards, WAC 173-221-040, and Secondary Treatment, 40 CFR 133.102, require that average monthly and weekly concentrations of BOD5 and TSS be included in a NPDES permit, as well as mass discharge loadings. This was established as effluent limitations for standard secondary treatment and defined by state regulation as "All Known, Available and Reasonable Treatment (AKART)." The limitations for mass discharge loadings required by the TMDL are based on the receiving water quality limit caused by low dissolved oxygen. This requirement does not change the secondary treatment requirement for permits.

(2) This is correct, ammonia and BOD both effect the oxygen uptake in the receiving stream and can be tied together as a data pair in relationship to the dissolved oxygen in the receiving water. This relationship, however, does not apply in this case. The interim effluent limitations for BOD and NH3 were based on the performance evaluation of the existing facility. The existing facility will be able to meet these interim limits unless the facility is modified in some way to change the operational capability. In accordance with the TMDL, there are no waste load allocations for BOD and ammonia allowed for in the final permit limitations. Also, ammonia is a toxic pollutant and shall not exceed the final effluent limitations for ammonia established in the permit.

Section I.D. Compliance Costs

COMMENT: (CNT & CHE) Because of how the NPDES permit is currently drafted, the City of Centralia is unable to meet the permit's stringent limits for BOD, TSS and ammonia without major investment in additional treatment facilities. The treatment...existing facility. Ecology should...BOD and TSS.

- - - - - Regardless of which option is selected...for many residents to bear. Yet Ecology acknowledges...attainment of current water quality standards. Given the...not a reasonable relationship between the two.

RESPONSE: The TMDL is required by state and federal law to result in compliance with the state Water Quality Standards set by regulation. Several compliance alternatives of varying costs

were studied by the dischargers that could comply with the TMDL and attain the current Water Quality Standards.

No matter what the chosen alternative may be, below are the steps necessary to restore the health of the Chehalis River system:

1. The Upper Chehalis River Total Maximum Daily Load (TMDL), that Ecology submitted to the U.S. Environmental Protection Agency (EPA) for approval, will be the legal and enforceable document for restoring the health of the Chehalis River system. The TMDL evaluated how much pollution the Upper Chehalis River can assimilate from different sources and still remain healthy. Because of the TMDL, Ecology is required by EPA to establish stringent controls on sources of pollution throughout the Upper Chehalis basin.

2. The pollution limits in the TMDL are valid, enforceable. The scientific analysis behind the limits conclusively established what has been evident for a long time--the Chehalis River System is extremely sensitive to pollution. Many of the water dependent resources currently enjoyed by local citizens are being threatened. Significant steps must be taken to restore the quality of the water. These points are widely accepted within the basin. Furthermore, EPA and private consulting firms concluded that Ecology used the usual and appropriate methods for the study. The study is the basis for environmental decisions for the river.

3. For years, the health of the Chehalis River has been threatened. That is why Ecology was forced to set stricter pollutant limits. The water quality study that the TMDL is based on took three years to complete. It used established scientific and engineering methods to evaluate over 70 miles of the upper Chehalis River and its tributaries. This was the most comprehensive, detailed study of the river's water quality that has ever been done. EPA scientists and other reviewers concluded that Ecology used reasonable and appropriate methods to determine the amount of pollutants that can safely be discharged into the river.

4. As a result of the TMDL, Ecology set stricter limits on pollutants discharged into the Chehalis River. Centralia, Chehalis and Darigold--which currently discharge wastewater into the river year round--will now need to cut back on the amount of pollution they are discharging. Eventually, Chehalis and Darigold will have to stop all discharges into the river from May through October. This is necessary because the river's flow is very low during that time of the year and the water is warmer. Even though the waste water has been treated prior to discharge, the river cannot dilute or break down the pollutants that remain. This robs the river of oxygen vital for fish and other aquatic life.

5. In this wastewater discharge permit, Ecology recommends a seven year compliance schedule to assist the treatment plants in stopping the discharges. Even though, the City claims that because of the high costs of the project they will need more than ten years; under state water quality laws, Ecology cannot approve a compliance schedule greater than ten years. In addition, other communities Ecology regulates have completed work similar to what the City will be doing in less than ten years.

6. Nonpoint sources of pollution (NPS)--pollution from diverse sources such as septic systems, stormwater runoff from yards and roads, erosion, and agricultural practices such as livestock waste disposal--account for about half of the pollution that is going into the river above Chehalis. The TMDL included reductions to the NPS to background levels

(water quality levels of dissolved oxygen) prior to reduction of point sources. These sources will be reduced under the TMDL.

7. It is important to note that Ecology will be working with the communities and Darigold to identify mutually acceptable solutions. A comprehensive regional approach to reducing all sources of pollution will be needed to protect the beneficial uses that depend on the Chehalis River. For the past six years, we have been working with the cities of Chehalis and Centralia, Darigold, tribes, and citizens to identify the problems and find solutions to protecting the river.

8. Ecology realizes that the changes will pose an economic challenge on the local governments and industries. In the past six years, Ecology has given cities, counties, and other organizations in the Upper Chehalis watershed more than $12 million in grants and loans that help protect and improve the health of the river system. This money and work is providing cleaner water and protecting public health in the Chehalis watershed. Ecology is committed to continue working with the communities to identify appropriate state sources of funding to improve their wastewater treatment systems.

9. The interim limits in the permit for BOD5, TSS, and ammonia are based on the operational data which the WWTP should be able to meet. These limits were also proposed by the City in their letter of August 23, 1995. The proposed effluent limits were based on actual plant effluent monitoring data and the City is encouraged to put into operation during the critical period, May 1 through October 31 of each year. See Section II.S1, below, for responses to the City's August 23, 1995 letter.

10. EPA and Ecology require that appropriate water quality standards be determined for all impaired surface waters of the state. The Chehalis River, in the Centralia Reach, is on the impaired water bodies list and require an extensive water quality study to determine the limiting waste load allocations. The Chehalis River TMDL has determined that dissolved oxygen is the water quality impairment and BOD5 and ammonia loads are to be reduced. When the TMDL has been approved by EPA, Ecology is required to implement the recommendations of the TMDL to remove excessive BOD5 and ammonia waste loads from the river.

Section I.E. A Regional Approach to Effluent Limits, Compliance and Implementation

COMMENT: (CNT & CHE) The City of Centralia takes issue with both the effluent limitations as proposed in the draft permit and the proposed compliance and implementation schedules. For ...economically feasible and technologically effective solution...the Cities and Darigold have explored...wastewater management planning. They suggest...to Ecology as a mechanism to provide for reasonable progress...toward improving water quality...the Chehalis River. (CHE) Chehalis remains willing...provided that its is not required to remove its discharge...May to October period.

(CNT & CHE) The final establishment of wasteload allocations (WLAs) should be deferred until a comprehensive regional approach can be completed. This approach would include a cooperative effort with Ecology to establish appropriate effluent limits and to analyze a full range of alternatives for meeting those limits.

RESPONSE: A regional solution is certainly an option that the City should considered in the planning phase for meeting TMDL recommendations. This may be the most cost-effective

solution; however, it is not an option that would extend schedules beyond that identified in the order. Because of the significance of the water quality problem in the Chehalis River and the completion and submittal of the TMDL and proposed non-point program schedule to EPA, makes it imperative that the recommendations in the TMDL be accomplished within a timely manner. The schedule will be incorporated in the permit along with interim and final effluent limitations. The schedule will extend beyond the standard five year term of a NPDES permit. The seven year compliance schedule will provide the flexibility for the permittee to accomplish reasonable goals to meet the TMDL recommendations and water quality standards required in the permit.

THE TMDL RECOMMENDATIONS (Section II in comments)

Section II.A. Lack of Public Input

COMMENT: (CNT, CHE & DAR) (1) Ecology overly limited public and stakeholder involvement. Ecology worked privately...before making any of it public. During this time, Ecology was unwilling to share...TMDL analysis. After finally releasing the TMDL...allowed...to comment. The TMDL Study includes 104 pages...technical appendices. It is unrealistic and unfair...more than a month.

RESPONSE: (1) During the three years of study development, a mailing list was developed and several letters were sent describing the study. Also during this time, Ecology staff attended several public meetings to describe the study. Key water quality concerns were identified in all these communication opportunities.

However, in general while a scientific study is underway we are reluctant to share preliminary results for a number of reasons, including:

1. Raw data must be evaluated for its quality and is often adjusted are discarded before it appears in a final report;

2. Preliminary analyses are often conducted that are abandoned for various reasons and do not appear in the final report;

3. Significant conclusions are often not arrived at until late in the study after extensive analysis, and are not considered final until they have been subjected to several levels of review; and

4. For all of the reasons above, release of preliminary data or results may only create confusion and unnecessary concern over results that may not appear in the final report.

Ecology guidance for the TMDL analysis recognizes that the technical study is done based on the principles of peer review and sound science, and the implementation of the TMDL technical study recommendations is done through a public process.

COMMENT: (CNT, CHE & DAR) (2) At substantial cost...funded a study...potential alternatives to...TMDL Study. Ecology did not respond...dialogue. Requests for information went unanswered. For example, ...re-run a number of scenarios. Ecology never responded. But Ecology did conduct additional modeling...never provided the results...dischargers. The TMDL package...suggests...greater loading capacity...previously stated.

RESPONSE: (2) The letter from the City of Chehalis requested 72 different model scenarios. The reasons for the numerous scenarios were not clear, and the request constituted an unreasonable resource and time commitment. However, additional runs were made and presented in the October 20, 1995, memo as part of the TMDL package. Ecology also offered its time and experience with the TMDL water quality model to the City's consultant.

This memo does not indicate there is a greater loading capacity. This memo shows only that there is a very small capacity in the Centralia Reach if we assume several things:

1. All nonpoint sources can be cleaned up;

2. Sediment Oxygen Demand will be reduced as pollutant sources are reduced;

3. Ecology agrees that 0.2 mg/L degradation is acceptable; and

4. Chehalis and Darigold will never exceed their WLAs (i.e., no plant upsets or spills will ever occur).

The memo did not recommend which WLAs to support. In the TMDL submittal and in the permits based on the TMDL, the WLA for Chehalis and Darigold was set at zero to maintain a reserve for scientific uncertainty. This procedure is allowed by Section 303(d) of the CWA to ensure that the water quality of the river is adequately protected.

COMMENT: CHE & DAR) (3) The City of Chehalis and Darigold have commissioned further modeling work that supports this position. Using Ecology's model, William Fox of Cosmopolitan Engineering Group analyzed the input variables used in the TMDL Study and ran alternative wasteload allocation scenarios. The results of this modeling...(a) confirms that the TMDL assumes unrealistic conditions by combining peak effluent flows with critical low river flow. (b) In addition, modeling runs of alternative wasteload allocation scenarios demonstrate that capacity is available to the City of Chehalis and to Darigold.

RESPONSE: (3a) This statement is not relevant to the permit limitations because the permit limitations are based on pollutant loading, not on effluent design flows. The final Wasteload Allocations (WLAs) are that are the basis of the permit limitations are derived from the loading capacity of the receiving water and do not assume any effluent design flow conditions.

The question of the appropriate effluent design flow to use with critical low flow to evaluate critical conditions is only relevant to the analysis of “Existing Critical Conditions” in the TMDL technical study. This analysis looks at the potential worst-case situation when the effluent discharge reaches maximum design flow during critical low flow conditions. The effluent flows and loads used are the maximum that are possible under the existing permit, and although it is unlikely that these flows would occur during critical low flow, the possibility exists (both physically and legally) and the potential impacts of that situation must be evaluated. However, this analysis is only one step in the overall TMDL study and, as stated before, the final WLAs do not depend on this analysis.

There are two significant differences in the analysis by Cosmopolitan Engineering Group (CEG) cited in the comments as compared to the TMDL analysis. First, “Figure 1” presents historical flows, which do not necessarily reflect the maximum plant capacity that can be reached after future growth. Second, CEG used weekly average flows, rather than daily flows. The TMDL analysis looks at the maximum daily conditions for critical conditions because of the

requirements of the dissolved oxygen criteria in the Water Quality Standards and WASP5 model. The weekly average would tend to reduce the higher daily flows. Since the CEG analysis looks at historical conditions on a weekly basis, and the TMDL analysis looks as future conditions on a daily basis, the CEG analysis does not in any way refute the TMDL analysis. This statement is not relevant to the permit limitations because the permit limitations are based on pollutant loadings determined in the final Wasteload Allocations (WLAs). The final WLAs, that are the basis of the permit limitations, are derived from the loading capacity of the receiving water. WLAs do not assume any effluent design flow conditions. Effluent loading limitations in the permit are based on the final WLAs in the receiving water.

COMMENT: (CHE & DAR) (4) The TMDL Study..."preliminary recommendations...result from a public process." However, the final allocations...do not reflect...factors. Nor do they reflect input form community...alternative. Ecology did conduct workshops...TMDL, but Ecology never held, ...public hearing...for consideration.

RESPONSE: (3b) Response to Comment II.A(2) above applies here as well, since the results obtained by Cosmopolitan Engineering Group (CEG) when running the WASP5 model for critical conditions are consistent with the results found by Ecology.

The results at higher flows could not be verified, and were inconsistent with earlier analyses done by Ecology. WASP5 is very complex and its response to different flow levels could vary widely depending on the method used to change the flow balance. However, the issue may not be of relevance since the Water Quality Standards require the use of critical conditions to evaluate the standards. Also, as discussed in Response 2, there may not be a practical way to tie discharge limitations to flow.

In reference to the ratio of ultimate BOD to 5-day BOD, the discussion by CEG is in error. The ratio of 2 used in the TMDL analysis was measured directly from effluent monitoring and, therefore, is more appropriate to be used than a value from literature.

The analysis CEG shows in their Figures 2 through 4 do not necessarily demonstrate that capacity exists for a WLA to Chehalis, because several issues are not addressed:

* A ratio of 2 must be used to compare effluent BOD_5 results to the TMDL's ultimate BOD WLAs;

* Loading from Darigold must be included;

* Future growth must be considered;

* Effluent data must be evaluated for its variability and its statistical probability to stay within TMDL limitations; and

* The other issues mentioned in Response 5 must be considered.

Section II.B. Flawed TMDL Analysis

COMMENT: (CNT, CHE & DAR) 1. <u>The TMDL is premised on an arbitrary worst case scenario that can never occur.</u> A worst case scenario drives the need for a TMDL and the conclusion that no point source loading capacity exists in the Centralia Reach for biochemical

oxygen demand ("BOD") and ammonia during the dry season. However, the worst case scenario contains unreasonable assumptions and presumes implausible water conditions.

RESPONSE: (1.) The TMDL is premised on "critical conditions" which are based on observed data. Those critical conditions are not "arbitrary" and it is not true that they "can never occur." The "existing critical conditions" scenario demonstrated the degradation of river conditions of a potential worst-case scenario with all pollutant sources at maximum levels (see Response 6). Loading far less than "existing critical" still did not meet water quality standards. In addition, the conclusion that river conditions do not meet water quality criteria and that a TMDL was necessary was based not only on modeling but also on observed data for DO and a long history of spills and fish kills.

COMMENT: (CNT, CHE & DAR) (1.a) Water quantity and 7Q10. Flow is a factor in evaluating a river's ability to assimilate pollution. Ecology used a "7Q10" calculation to simulate critical low flow conditions. Thus, 7Q10 is a key assumption in the TMDL because using too low a 7Q10 will lead to determining a loading capacity that is too low. Ecology concluded that the 7Q10 flow for the Centralia Reach is approximately 59 cubic feet per second ("cfs").[3] However, an analysis performed by Dames and Moore firm concluded that the 7Q10 flow in the Chehalis Reach is approximately 88 cfs. Flawed methodology accounts for the discrepancy. Ecology used a non-standard methodology and failed to consider much of the actual data that exists.

RESPONSE: (1.a) WAC 173-201A-020 specifies that "critical conditions may be assumed to equal the 7Q10 flow event...unless otherwise determined by the department." The estimates of critical low flow in the Centralia Reach are based on sound methodology (albeit "non-standard") using actual critical low flow conditions during 1992. For example, flows above the Skookumchuck River were measured at 77 cfs in early August 1992, and flows at USGS gages throughout the basin continued to drop until reaching 7Q10 levels in late August. Therefore, the estimated critical low flow of 68.1 cfs above the Skookumchuck (and below the Centralia outfall) is reasonable. The other flows mentioned in the comments, 65.8 and 60.2, and 58.9 cfs, represent critical low flows immediately above the Centralia outfall, above the Darigold outfall, and below the Newaukum River, respectively.

COMMENT: (CNT, CHE & DAR) (1.b) Point source loading. The TMDL model includes illogical, mutually exclusive worst-case assumptions about pollutant loading from point sources. ... It assumed that the Cities of Centralia and Chehalis and Darigold would all discharge (i) at the maximum monthly permitted flows. (ii) at the maximum weekly permitted effluent concentrations, (iii) at the same time as all non-point sources were at their highest measure concentrations, and (iv) when the river flow was at the 20-year, 7-day minimum.

High discharge flows from the Cities coincide with high river flows. High flows in the Cities result form storms and infiltration for high groundwater. Maximum monthly flows (assumption i) for Centralia and Chehalis occur in the rainy season and are physically impossible when the Chehalis River is at minimum flow conditions (assumption iv). the assumption that all three wastewater facilities would discharge at their maximum permitted concentrations (assumption ii) at the same time is far fetched because it presumes that all three wastewater plants have process malfunctions, or "upsets" simultaneously. Moreover, process upsets are more likely to happen for the Cities during high flow periods. These flows are, by definition, not physically possible during the 20-year, 7-day low flow events (assumption iv). Therefore, *the worst case scenario in the TMDL can never occur*.[4]

RESPONSE: (1.b) The discussion in this section focuses on the "existing conditions" analysis, and Response 6 applies here as well. No evidence has been provided to support the assertion that this scenario "can never occur." In fact, the discussion seems to include a number of misunderstandings about the assumptions used in modeling. In any case, the WLAs proposed under the TMDL are based on the loading necessary to protect water quality, not on treatment plant design parameters; thus the concerns expressed in this section are not relevant to the final permit limitations proposed.

COMMENT: (CNT, CHE & DAR) (1.c) Outdated data. Ecology relied on data collected in 1991 and 1992, but failed to consider more recent data in the TMDL Study. This omission detracts from the accuracy of the TMDL analysis and contributes to the unrealistic worst case scenario. Since 1992, for example, the City of Chehalis has completed rehabilitation of several large sewer basins resulting in substantially reduced inflow and infiltration. Failing to take current information into account overestimates mass loadings and therefore exaggerates the worst case scenario. More importantly, during recent years, the City's treatment facility has incorporated a solids contact operational process. And last year, an activated sludge process was implemented. Both of these treatment processes have resulted in substantially improved treatment quality.

[3] Inexplicably, although the TMDL uses 58.9 cfs, the draft permits issued to Centralia, Chehalis and Darigold state a variety of inconsistent figures for the 7Q10. For example, the draft fact permit documents issued to Centralia use 68.1 and 65.8 cfs as the 7Q10 numbers. For Chehalis, the draft fact sheet uses a 7Q10 number of 60.2 cfs.

[4] Ecology has also assumed exaggerated pollutant make-up of the effluent discharge. For example, Ecology used a maximum ammonia concentration for the City of Centralia that is nearly three times the single day maximum ammonia discharge ever experienced by Centralia.

RESPONSE: (1.c) The TMDL study collected two years of data from the Chehalis basin in 1991 and 1992 which were used to model other potential river conditions and project to future conditions. Although several years have now passed, nothing has changed in the Chehalis River system that negates the validity of the data or analysis used. Changes in the operation of treatment plants in the basin can be taken into account as part of the schedule of compliance with the TMDL, but is irrelevant to the estimate of WLAs in the TMDL analysis.

The method used to estimate the critical low flow for the TMDL and mixing zone calculations is described in the report and discussed above. The appropriate statistic for critical low flow for semiannual seasonal limits is the 7Q20. The 7Q20 for June 1 to September 15 and September 16 to May 31 was calculated for the major gaging stations and found to be not significantly different from the 7Q10. The 7Q20 for the November through April period was calculated and used for toxicity calculations for that period.

COMMENT: (2) Ecology mistakenly interpreted the TMDL analysis.

COMMENT: (CNT, CHE & DAR) (2.a) May to October WLA. Although the TMDL is intimately tied to low flow critical conditions, the recommended dry season WLAs for BOD and ammonia apply from May to October *regardless of actual conditions*. The recommended WLAs do not give adequate consideration to limits based on actual river flows.

RESPONSE: (2.a) The May through October period was a recommendation based on the occurrence of critical environmental conditions and observed problems. Often the engineering

and economic limitations of any implementation strategy may preclude an operation that can "turn off or turn on" as conditions change. The possibility of triggering more stringent controls as a function of real-time river conditions has been discussed with the dischargers and has never been ruled out by Ecology. This approach must be an integral function of the final implementation strategy chosen and would still be in effect during the May through October period. Ecology exempted the November from April period to provide some relief from the conditions of the TMDL.

COMMENT: (CNT & DAR) (2.b) Excessive reliance on the model. Ecology used a predictive computer model to establish wasteload allocations outside the accuracy of the predictive results of the model.

RESPONSE: (2.b) The fact that the model results varied from observed results by plus or minus 1 mg/L has very little relevance to the model's ability to predict degradation of DO by BOD loading. The differences between observed and modeled results found in the calibration and verification analysis occurred mainly because the natural world changes more than the model can predict. The changes may be due to the daily cycles of sunlight and temperature, or to the presence of materials in the river that were discharged upstream several days earlier.

Despite this variability, a discharge of BOD will degrade DO and will not increase DO. More BOD means lower DO--the model is valid to predict this despite the variability introduced by other causes.

In addition, EPA requires that TMDLs include a margin of safety to account for scientific uncertainty. The margin of safety must ensure that the river is adequately protected. Although the model results may overestimate the degradation of water quality due to pollutant discharges, there is an equal chance that the model underestimates the amount of degradation. The model variability was taken into account in the choice of reasonable, but conservative, model assumptions.

COMMENT: (CNT, CHE & DAR) (2.c) Improper classification of the river. The Centralia Reach is classified as Class A (excellent). However, the background conditions used in the TMDL Study do not meet water quality standards for Class A waters. WAC 173-201A-130. This fact strongly suggests that Ecology has improperly classified the Upper Chehalis River, and particularly the Centralia Reach. In order to ensure proper water quality classification, Ecology should have conducted a use attainability study before evaluating the loading capacity for the TMDL. See 40 C.F.R. § 131.10.

RESPONSE: (2.c) The federal Clean Water Act requires that a TMDL analysis evaluate compliance with existing Water Quality Standards. Analysis of the appropriateness of the standards is not within the scope of our legal obligations to protect water quality.

COMMENT: (DAR) (2.c) Because of the artificially high classification for the river, an arbitrary DO standard is needed to justify the TMDL. As noted... , even background conditions do not meet the DO criterion (0.2 mg/L) in the TMDL Study. Ecology selected a DO degradation standard of 0.2 mg/L. The source of this 0.2 mg/L DO degradation standard is unclear, but suggests that Ecology itself recognizes that the classification is too high.

RESPONSE: (PP) The antidegradation policy contained in the Water Quality Standards sets natural conditions as the criteria when natural conditions fall below the criteria. To compare the impacts of pollutant loading to natural conditions, the degradation of DO by pollutant sources

must be evaluated. A DO degradation value of 0.2 mg/L was proposed to evaluate "significant" degradation in the interpretation of model results, since the model can calculate extremely small changes that may not be significant. The precedent of using 0.2 mg/L comes from the marine Water Quality Standards and EPA's Snake River TMDL. The use of 0.2 mg/L has nothing to do with the classification of the river and may actually be overly lenient since the standards could be interpreted to mean "zero" degradation below natural conditions.

Section II.C. Unreasonable Implementation

COMMENT: (CNT & CHE) 1. Failure to consider economic reasonableness or perform an alternative analysis. Ecology settled on the draconian point source restrictions without comparing their cost to the water quality benefits they produce. Ecology has a duty...RCW 90.54.020(b). The TMDL analysis...restrictions on point sources. However, the economic... $120 million. Ecology...following: -----

RESPONSE: 1. The two recommendations in the TMDL are just that, recommendations. Recommendations identified in a TMDL are for example only and are not to be considered as an endorsement by Ecology or that the City must consider both of them an alternative. Ecology is not required to provide alternatives nor to determine the reasonableness of suggested alternatives. This is certainly a local function, as it should be, to determine the method and alternative that best suits their needs to best meet the TMDL recommendations. The City certainly has the opportunity to investigate all cost-effective alternatives to fulfill its fiduciary duties to its residents, customers, and taxpayers. However, this process should not be protracted out to look at alternatives that are not feasible or to prevent the protection of the water quality of the Chehalis River.

RCW 90.48.010 and RCW 90.54.020(b) references All Known Available and Reasonable Treatment (AKART) that shall be provided for all discharges of pollutants into the waters of the state. This is defined as technology treatment and is defined as secondary treatment in this state. However, RCW 90.48.035, along with RCW 90.48.020, gives Ecology the rule-making authority to protect the water quality of the state. This rule-making authority was utilized in the development of WAC 173-201A, Water Quality Standards. These standards were developed through the public review process and are periodically revised through the Triennial (public) review process. The Water Quality Standards were also required to meet EPA's mandate for higher levels of pollutant removal and to protect the beneficial use of the receiving waters, such as the National Toxic Rule (NTR).

The Water Quality Standards include the classifications of the various surface water bodies in this state and the standards for each separate classification, such as Class A (excellent). The regulations (WAC 173-201A) require that the waste discharge permits set effluent limits to protect those beneficial uses and to meet the water quality criteria set for each classification. In the case of the Chehalis River (Centralia Reach), the TMDL was required to identify those pollutant that affect the accomplishment of that goal.

COMMENT: (CNT & CHE) 2. Failure to address non-point sources. Ecology failed to adequately address non-point sources of pollution, which together with background conditions are the primary cause of the river's water quality problems. Although non-point source pollution accounts for much of the river's water quality problem, point source dischargers bear a grossly disproportionate share of the burden. Ecology has deferred development of a non-point source strategy and best management practices for a later date, while Ecology presses ahead with the costly point sources recommendations.

RESPONSE: 2. The flow assumptions for critical low flow are discussed in Response to Comment II.B.1.a, above. Upstream ammonia was derived from TMDL model results. The May through October temperature and pH values for Chehalis correspond to the 90th percentile of data from the TMDL study. The Centralia values do not correspond to the 90th percentile of TMDL data; the appropriate May through October temperature and pH values from the TMDL data would be 24.5 ^{o}C and pH 7.4. The TMDL study had no data from the November through April period.

(CNT) The recommendations in the TMDL study report assumed a LA of zero of all nonpoint sources and assigned any available capacity to WLAs for point source dischargers. Although nonpoint sources constitute the majority of the pollutant sources upstream of the City of Chehalis, point source loading from Chehalis provides about half of the BOD and most of the ammonia in the Centralia Reach, and below Centralia over two-thirds of the BOD loading to the river and most of the ammonia comes from point sources (illustrated in Figure 7 in the TMDL Summary Report).

Also see Point #6 of Section I.D. Compliance Cost, above.

COMMENT: (CNT & CHE) 3. Unreasonable schedule for point sources. Ecology proposes to establish an unrealistic compliance schedule through the draft administrative orders that accompany our draft NPDES permits. Scoping, planning, constructing, and operating new or substantially improved wastewater treatment facilities cannot be accomplished within this short of time frame.

RESPONSE: 3. The City has not presented any additional information to date that would justify additional planning, design, or construction time to meet the TMDL recommendations. The Environmental Protection Agency requires that all NPDES permits be issued with water quality compliance within that five year permit term. However, a companion Administrative Order will be issued with the permit that will allow the permittee additional time past the five year permit period required by EPA to complete the required milestones. The schedule for meeting water quality compliance established in the order is based on Ecology's many years of experience negotiating schedules for similar milestones in permits throughout the southwest region. Ecology understands that certain unanticipated problems may arise in fulfillment of the required milestones that may extend the schedule for meeting water quality limits in the permit. If this is the case, additional time may be allowed in the Administrative Order. However, in accordance with WAC 173- 201A-160(4)(c), the schedule of compliance may in no case exceed ten years.

Section.II.D. Procedural Defects

COMMENT: (CNT & CHE) 1. Ecology failed to follow rule-making procedures. Because Ecology failed to follow the formal rule-making procedures required by the EPA. the TMDL is invalid and unenforceable.

RESPONSE: Federal regulations require the state to establish a priority ranking for TMDL projects which consider the severity of pollution and beneficial uses of affected waterways (40 CFR Part 130.7). Section 303(d) of the Federal Clean Water Act requires states to implement water quality-based pollution controls on segments of rivers where technology-based controls are insufficient to achieve water quality standards. To meet this requirement, a total maximum daily load (TMDL) must be established for each pollutant violating water quality criteria. Federal law requires that EPA approve all TMDLs developed by the state. Therefore, the rules governing the

TMDL process required by the Federal Clean Water Act is already in place through RCW 90.48.260, "Water Pollution Control" and WAC 173-201A, "Water Quality Standards for Surface Waters of the State of Washington."

COMMENT: (CNT & CHE) 2. Ecology failed to conduct environmental review. Ecology should have conducted environmental review of the TMDL under SEPA.

RESPONSE: Only issuance of permits for new sources must follow SEPA requirements. It may be interpreted that a TMDL is considered a plan, and as such would be identified as a SEPA "action." However, since the TMDL must be approved by EPA prior to implementation, it is not considered a SEPA "action" under WAC 197-704(1)(b)(iii).

COMMENT: (CNT & CHE) 3. Ecology failed to comply with the Clean Water Act. The Clean Water Act requires publication of the proposed WLAs and a meaningful public hearing. See 33 U.S.C. § 1312; RCW 90.48.260(1)(f). The workshops held by Ecology fail to satisfy this Requirement.

RESPONSE: 3. See above comment to Section II., The TMDL Recommendations, Item A., Lack of Public Input.

II.4.c. Administrative Order

COMMENT: (1) Ecology's use of the administrative order is not the most effective or appropriate mechanism for addressing water quality issues in the Centralia Reach of the Chehalis River. (2) The administrative order is inconsistent with the provisions of the draft permit and the fact sheet (*e.g.*, the compliance schedule). (3) Moreover, its premises are based on the TMDL recommendations, which, as set forth above, are substantively and procedurally flawed.

(4) In place of a unilateral, TMDL-based administrative order, the City of Chehalis, the City of Centralia, and Darigold suggest that a mutually agreed upon document is more appropriate. Such an agreement could be incorporated into a court order and could set forth timelines for undertakings by both the City of Chehalis and Ecology, such as: ...WLAs.

RESPONSE: Administrative Orders give permittees and Ecology the greatest latitude in establishing schedules for meeting water quality-based effluent limitations. Permittees and Ecology have more flexibility to ensure compliance with water quality standards and TMDL recommendations. Court orders have to be enforced to the letter of the law and do not provide any flexibility for changing schedules nor the final products. A mutually agreed upon document with the parameters suggested would be a good starting point for discussion of schedules. The City would need to provide additional information to justify the strategies proposed and the time required to achieve any identified goals.

See above Response to Comment from EPA (page 17) on Draft NPDES Permit regarding requirements for final effluent limitations and schedules for compliance. Federal and state regulations require that the final limits and schedule be in the permit. The compliance schedule for meeting final permit effluent limitations will be in the NPDES permit. However, the construction completion schedule will be seven years with a one year certification period to meet final compliance with effluent limitation. Therefore, the use of an administrative order has been eliminated from consideration.

III. PERMIT SPECIFIC COMMENTS REQUIRING INDIVIDUAL RESPONSES

III.1. CITY OF CHEHALIS (Letter from City of Chehalis dated February 12, 1996)

III.1.a. Comments Received on City of Chehalis NPDES Permit

<u>SUMMARY OF SCHEDULED PERMIT REPORT SUBMITTALS</u>

COMMENT: **S4.D.** Because more than one report is required by this condition, the City of Chehalis suggest that the "Permit Section" be revised to read "S4.D.1"

RESPONSE: Ecology agrees, the proposed permit will reflect this change.

COMMENT: **S4.E.** The "Permit Section" is mislabeled and should read "S4.D.2"

RESPONSE: Ecology agrees, the proposed permit will reflect this change.

COMMENT: **S7.D**. The "Permit Section" is mislabeled and should read "S7.C"

RESPONSE: Ecology agrees, the proposed permit will reflect this change.

COMMENT: **S8.B**. The "Permit Section" is mislabeled and should read "S8.F"

RESPONSE: Ecology agrees, the proposed permit will reflect this change.

COMMENT: **S8.C.** The "Permit Section" is mislabeled and should read "S8.B"

RESPONSE: Ecology agrees, the proposed permit will reflect this change.

COMMENT: **S8.F.** The "Permit Section" is mislabeled and should read "S8.E"

RESPONSE: Ecology agrees, the proposed permit will reflect this change.

COMMENT: **S10.** To more closely match the language of the permit, the "Frequency" should read "as Required" rather than "1/permit cycle." In addition, the October 1, 1996 "First Submittal Date" is not supported by language of the permit.

RESPONSE: Ecology agrees, the proposed permit will reflect this change.

S1: <u>EFFLUENT LIMITATIONS</u>

A. <u>Effluent Limitations</u>

COMMENT: ...City of Chehalis objects to all effluent limitations calculated using data from the TMDL Study or the TMDL recommendations. ...improvements to...existing treatment facility... cannot be completed within five years. ...additional concerns with Ecology's assumptions foe flow, pH, temperature and background ammonia concentrations, and hoe these assumptions were employed in imposing effluent limitations.

RESPONSE: See above comments in Section II.B "Flawed TMDL Analysis." The interim limits are based on the operational capability of the existing WWTP with the activated sludge facility in operation. This is in accordance with the City of Chehalis' letter dated August 23, 1995. The proposed interim effluent limits in the draft NPDES permit for the Chehalis WWTP are based on the City of Chehalis letter dated August 23, 1995, and monitoring data submitted by the City. The following are responses to the seven points in the City's letter:

> Point #1 proposed interim effluent limits for BOD5, TSS, Ammonia and DO were reflected in the permit. See Special Condition S1.
>
> Point #2 was to develop a funding program is certainly a City of Chehalis responsibility and is encouraged. Ecology (within state regulations) will support the City in their efforts to acquire additional funding from all sources, including Ecology's CCWF and SRF grants and loans. The compliance schedule provides ample time to complete a financial program package.
>
> Point #3 is to establish a program to monitor and test river water quality and quantity. This proposal is certainly needed. This effort is supported by Ecology and is on Ecology's schedule to be implemented in the next biennium. For details, please contact Will Kendra at Ecology (360-407-6698).

Point #4 are identified as City conducted pilot studies and may be needed to support the facility planning and design efforts to achieve final effluent limits proposed in the TMDL.

Point #5 is to repair the outfall and study the outfall dilution zone will not be recommended by Ecology, at this time. The dilution factors used in determination of effluent limits are based on a percent of flow (25 percent for chronic; 2.5 percent for acute) not mixing capabilities of a diffuser. The Chehalis River flow in the vicinity of the WWTP is small and extremely slow. The effluent mixing/dilution study determined higher dilution ratios, but WAC 173-201A-100 requires permit limits to be based on the most restrictive criteria for mixing zones and/or river flows. See additional responses to comments provided by Paul Pickett on the TMDL Model and determination of critical river loadings.

Point #6 refers to reduction of non-point sources and is a major part of the overall strategy established by Ecology to meet the goals of the TMDL recommendations. This strategy has been reviewed and approved by EPA and will be implemented. The reduction in non-point sources in the Upper Chehalis basin is a factor in the development of the TMDL loadings. The BOD and ammonia loadings at the mouth of all the tributaries and along the main stem of the Chehalis were reduced to achieve a background water quality standard of 8.0 mg/L DO.

Point #7 is to establish a river gaging station in the vicinity of the outfall and to use it for hydraulically-based effluent limits. This proposal does not meet Ecology' requirement for design of critical conditions and determination of reasonable potential to cause violations to effluent limitations. These concerns are further addressed above in Section I.B, "Calendar-based versus Hydraulically-based Effluent limitations."

Based on the comments to the draft permit, the City is now withdrawing their original proposal to Ecology to use the limits in the August 23, 1995 letter. Since the City's proposed limits were based on a limited amount of operational data at the facility, the interim limits in the permit will be revised to the actual operational-based limitations that the facility has met over the last three years (minus the test period data). The flow, pH, temperature, and background ammonia concentrations used to determine final effluent limits were obtained from extensive monitoring data taken in the Chehalis River during the TMDL study at the critical flow period. The proposed interim limitations were based on the DMR data for the years 1992 through 1994. Since these limits were determined, an additional year or more of DMR data became available, October 1994 through December 1995. The most current DMR data for that period was analyzed and, where appropriate, the effluent limitations were revised accordingly.

The DMR data was analyzed using EPA's Technical Support Document (TSD) For Water Quality-based Toxics Control (EPA/505/2-90-001, March 1991). Three years (1993 through 1995) of Discharge Monitoring Reports (DMR) data was utilized. The statistical analysis is based on Appendix E of the TSD and Ecology's Permit Writer’s Manual, Chapter VI. This analysis determines the WWTP operational capability for meeting a certain statistical probability (95th percentile monthly) effluent limit. The interim time (seven years) will provide the City ample time to determine the most cost effective solution to meeting the TMDL recommendations, develop funding options, and complete design and implementation report.

It is the intent of the implementation of the TMDL recommendations that, in the interim, the pollutants entering the surface water should be limited as much as possible. This is why the

WWTP effluent flows are also limited. An analysis of the monthly average effluent flows for the May through October critical period over the last six years (1990/1995) shows that the maximum average monthly discharge was 1.7 million gallons per day (MGD). The City also has an infiltration and inflow reduction program that is still on-going which continue to reduced flows to the WWTP. The 1.7 MGD is equal to 85 percent of the dry weather design flow of 2.0 MGD; and, the maximum average monthly discharge flow will not statistically exceed the 2.0 MGD within the next five years (the term of the permit); therefore, the 2.0 MGD design flow is used as the effluent discharge limit for the May through October period.

The treatment performance evaluation shows that the effluent, during the critical period, can meet the following limits:

INTERIM EFFLUENT LIMITATIONS[a] (May - October)

Parameters	Monthly Average	Weekly Average
BOD_5[b]	20 mg/l, 334 lbs/day	30 mg/l, 500 lbs/day
TSS[c]	25 mg/l, 417 lbs/day	37.5 mg/l, 626 lbs/day
Total Chlorine Residual	0.021 mg/L	0.023 mg/L

Parameters	Monthly Average	Maximum Daily
Ammonia (NH3-N)	18.6 mg/L	28.6 mg/L

INTERIM EFFLUENT LIMITATIONS[a] (November - April)

Parameters	Monthly Average	Weekly Average
BOD_5[d]	30 mg/l, 1000 lbs/day	45 mg/l, 1500 lbs/day
TSS[e]	30 mg/l, 1000 lbs/day	45 mg/l, 1500 lbs/day
Total Chlorine Residual	0.023 mg/L	0.026 mg/L

Parameters	Monthly Average	Maximum Daily
Ammonia (NH3-N)	14.6 mg/L	19.6 mg/L

[a] The average monthly and weekly effluent limitations are based on the arithmetic mean of the samples taken with the exception of fecal coliform, which is based on the geometric mean.

[b] The average monthly effluent concentration for BOD_5 shall not exceed 20 mg/L or 15 percent of the respective monthly average influent concentrations, whichever is more stringent. (4880 lbs/day influent x 0.15 = 732 lbs/day > 20 mg/L x 2.0 MGD x 8.34 = 334 lbs/day)

[c] The average monthly effluent concentration for Total Suspended Solids shall not exceed 25 mg/L or 15 percent of the respective monthly average influent concentrations, whichever is more stringent. (5125 lbs/day x 0.15 = 768 lbs/day < 25.0 mg/L x 2.0 MGD x 8.34 = 417 lbs/day)

[d] The average monthly effluent concentration for BOD_5 shall not exceed 30 mg/L or 25 percent of the respective monthly average influent concentrations, whichever is more stringent. (4880 lbs/day influent x 0.25 = 1220 lbs/day > 30 mg/L x 4.0 MGD x 8.34 = 1000 lbs/day)

[e]The average monthly effluent concentration for TSS shall not exceed 30 mg/L or 35 percent of the respective monthly average influent concentrations, whichever is more stringent. (5125 lbs/day x 0.35 = 1794 lbs/day > 30.0 mg/L x 4.0 MGD x 8.34 = 1000 lbs/day)

B. Interim Metals Effluent Limitations

COMMENT: It is premature to impose new interim metals effluent limitations. At Ecology's request, the City recently adopted a pretreatment ordinance...Ecology should analyze the effectiveness of this new ordinance before imposing stringent new effluent limitations. In any event, ...interim metals effluent limitations are unattainable. Additionally, there is no basis or precedent for a quarterly average requirement. The best ...

RESPONSE: Interim metals limits are based on the performance removal capability of the existing facility and effluent toxic pollutant scans the City reported to Ecology between December 27, 1993 through December 15, 1994. EPA and state regulations require water quality-based effluent limitations be in the NPDES permit if a water quality study has shown through a reasonable determination that the water quality criteria may be exceeded. In accordance with WAC 173-201A-160(4) and WAC 173-220-140, effluent limits shall be formally established in the permit. Interim limits and a compliance schedule to meet final metals effluent limits shall also be established. The compliance with the final metals limits are certainly dependent on the success of the pretreatment ordinance that the City has recently adopted and the planned upgrade to the facility required by the TMDL recommendations. Since it is the Ecology's goal to promote pollution prevention whenever possible, this permit will have as a goal the reduction in metals concentration through the pretreatment program. The required compliance schedule will be included in the permit to allow for the flexibility to achieve the required outcome of reducing metals concentration in the effluent in a timely manner.

Since the City has recently adopted a sewer ordinance with local limits, the industries in the City are required to comply. The issuance of this draft permit will require the City to comply with final silver limits in accordance with any schedule issued to Qualex for meeting local limits for silver or by May 31, 1999, date of expiration of the Qualex permit.

WAC 173-220-210 allows Ecology to require monitoring schedules "at intervals sufficiently frequent to yield data which reasonably characterizes the nature of the discharge of the monitored effluent or pollutant." The basis for the City's interim permit limitations for silver is the limitations in the industrial permit for Qualex. The Qualex Company is currently in compliance with the silver limit in their existing permit (Daily Maximum @ 1.0 mg/L and Quarterly Average @ 0.4 mg/L). Qualex is required to report quarterly average and maximum daily values for discharge of silver to the City's sewerage system. To be consistent, the City must also report a quarterly average and daily maximum for this interim period. Since the industry has made changes to their treatment system that reduced the silver loading to the WWTP, the City's limits are based on the industrial limits and not on a WWTP operational performance determination.

INTERIM METALS EFFLUENT LIMITATIONS

Parameter	Quarterly Average	Daily Maximum
Copper	n/a	26.8 mg/L
Silver[a]	3.74 mg/L	8.78 mg/L
Zinc	n/a	76.3 mg/L

C. Final Metals Effluent Limitations

COMMENT: It is also premature to establish final metals effluent limits at this time. The final ...the limits in the draft permit are for total recoverable metal. But the regulations require that this parameter be set based on the dissolved fraction. See... The City questions the acute and chronic dilution factors... Ecology's steady-state WLA approach that combines the maximum effluent flow with a 7Q10 established by Ecology at 60.2 cfs. Setting...this approach ignores the improbability that these hydraulically-based events will ever coincide. Ecology should use a continuous simulation WLA model, as described in the EPA TSD (p.81).

The draft permit is ambiguous as to what effluent limit applies to silver until the end of the permit. The permit...language inserted into the top of the final metals effluent limitations chart that states, "These limits are not effective until ____(permit expiration date)."

RESPONSE: Final Metals Limits are required by 40 CFR Part 122 Section 44 (i) and WAC 173-201A and are not part of the requirements of the TMDL. These limits are required regardless of the approval of the TMDL by EPA or not. The final permit limits for metals are based on effluent toxic pollutant scans the City reported to Ecology between December 27, 1993 through December 15, 1994. The data was analyzed using EPA's TSD method, as noted above. A reasonable potential determination was completed and showed that the effluent concentrations of ammonia, copper, silver, and zinc have the potential to exceed the water quality criteria in the receiving waters. Therefore, Ecology is required to set limits for these toxic pollutants and compliance schedules in the permit to protect the water quality in the Chehalis River.

The effluent limits are based on the dissolved fraction and converted to total recoverable metals using the latest NTR recommended conversion factors (40 CFR Part 131 changes in the Federal Register dated Thursday, May 4, 1995). The permit includes the total recoverable metals limit because the availability of approved testing methods and expense in determining the dissolved metals concentration.

In the case of interim and final effluent metals limitations, non-construction changes shall first be utilized such as local enforcement of the Pretreatment Ordinance. Therefore, the schedule for meeting TMDL recommendations and the final metals effluent limitations will be incorporated as one schedule in the permit. Changes to the description of items required in the schedule will reflect this recommendation. However, if during the term of the permit, achieving compliance with the final water quality limits does not appear possible, the Permittee shall provide the Ecology written documentation why the compliance schedule will not be met.

The final silver, copper, and zinc limits have been revised to reflect the latest changes to the Water Quality Standards reflected in the National Toxic Rule and issued by EPA as an Interim Final Rule and adopted by Ecology. These changes are being proposed as revisions to the Water Quality Standards (WAC 173-201A). Following are the revised final metals effluent limitations:

FINAL METALS EFFLUENT LIMITATIONS

MAY THROUGH OCTOBER

Parameter	Monthly Average	Daily Maximum
Copper[a]	9.69 mg/L	10.63 mg/L
Silver[b]	1.27 mg/L	1.39 mg/L

Zinc[a]	69.6 mg/L	76.3 mg/L

NOVEMBER THROUGH APRIL

Parameter	Monthly Average	Daily Maximum
Copper[a]	10.9 mg/L	12.0 mg/L
Silver[b]	1.29 mg/L	1.41 mg/L
Zinc[a]	78.3 mg/L	85.9 mg/L

Ecology agrees that the best approach is a comprehensive regional approach. This approach has always been supported by Ecology. The requirements for meeting water quality criteria in the receiving waters is dependent on a regional approach to eliminating all sources of pollution which includes both point and non-point sources. It is the intent of the proposed permit to implement all reasonable controls along the way to achieving compliance with water quality standards in the receiving waters to ensure that all possible methods to achieve this goal are in place. These reasonable controls may include monitoring, interim limits, compliance orders and schedules, final limits, local ordinances, and structural changes.

D. Dilution Factors

COMMENT: The May through October calculations are based on Ecology's 7Q10 flow of 60.2 cfs, As discussed...City believes this to be underestimated by nearly 50%. The November through April number...218/6 cfs...page 18 of fact sheet but not supported in any way. Furthermore, the dilution factors are based on unrealistically high effluent flows. The City... concerns with all dilution factors using TMDL recommendations...assumptions for flow, pH, temperature, and background ammonia concentrations.

RESPONSE: See Section II.B "Flawed TMDL Analysis" above for responses to the 7Q10 flow questions (PP).

The WWTP effluent flows used in the analysis for determining dilution factors are based in the guidelines established in Chapter VI of the Ecology Permit Writer's Manual (Table VI-1). The Chronic and Acute dilution factors are based on the critical plant effluent flow. For Chronic this flow is defined as the highest monthly average plant effluent flow for the past three years during critical flow or when the critical condition is likely to occur. For Acute this flow is defined as the highest daily maximum plant effluent flow for the past three years during critical flow or when the critical condition is likely to occur. The flow data analyzed for Chronic and Acute dilution factors are taken from the DMRs submitted by the City over the past three years during the critical flow periods to be analyzed.

Between May through October (1992 through 1994), the WWTP effluent flows for Chronic conditions was 1.73 MGD and for Acute it was 5.66 MGD. The effluent flows did not change when the data was updated to include the latest year of DMR data (1993 through 1995). These flows equate to a Chronic dilution factor of 5.2 and an Acute dilution factor of 1.2. The previous effluent flows utilized was 1.81 and 5.57 MGD, respectively. The November through April (1993 through 1995) effluent flows are 4.14 and 9.90 MGD, which equates to a Chronic and Acute dilution ratios of 1.35 and 10.6, respective. These wet weather ratios are equivalent to the previous ratios. The previous data analyzed, May 1991 through November 1994, showed the highest monthly average WWTP flow of 3.1 MGD and the highest daily flow of 10.0 MGD.

E. Schedule for Meeting Final Metals Effluent Limits

COMMENT: The draft permit requires a schedule for meeting final metals effluent limits that is not realistic. For example, ...two years of data are needed, ...modification of an existing wastewater treatment facility...slows the compliance schedule...require a longer schedule than does compliance for new facilities.

Because the interim...and the final metals effluent limits are both too stringent..., Ecology should delete...limits from permit. In their place, a compliance schedule would be added, allowing Chehalis to collect dissolved and total recoverable metals, and conduct a continuous simulation WLA model...regional planning effort. These data...reasonable potential...water quality-based standards.

RESPONSE: The schedule for meeting final metals effluent limitations for silver are related to the limits for Qualex, as noted above in Response to Comment on Section S1.B. Since the City has recently adopted a Sewer Ordinance with local limits, the industries in the City are required to comply. The issuance of this draft permit will require the City to comply with final silver limits in accordance with any schedule issued to Qualex for meeting local limits for silver or by May 31, 1999, date of expiration of the Qualex permit.

In accordance with 40 CFR 122.44 (i), WAC 173-201A-160(4)(b), and WAC 173-220-140, interim and final metals effluent limits for copper and zinc and a compliance schedule for meeting final effluent limitations shall be formally established in the permit. The schedule for compliance with water quality-based limits will be incorporated with the schedule for meeting the TMDL recommendations and issued in the permit, as shown below. This combined schedule will allow for the maximum flexibility to achieve the required outcome of reducing metals concentration in the effluent in a timely manner. Therefore, the items and scheduled dates in the permit reflect a two year monitoring period up front. This will give the City time to gather adequate and accurate data, to determine the reasonable potential and sources of pollutants and to develop the required planning and design documents. Monitoring to determine the translator in the ambient water (total dissolved to total recoverable metals ratio) is recommended. However, Ecology's Environmental Investigation Laboratory Services (EILS) Program shall be consulted prior to instituting the procedure and conducting a continuous simulation WLA model.

Schedule For Meeting Final Effluent Limits (S1.B)

Ecology has determined that a schedule will be required to ensure final compliance with the water quality-based effluent limits in the shortest practicable time. Meeting the final effluent limits will require the permittee to plan, design, and construct necessary treatment capability. Therefore, Ecology has included the extended schedule for compliance with the final effluent limitations within eight years from the date of issuance of this permit. See Response to Comments to EPA's letter, above.

S2. TESTING SCHEDULE

COMMENT: Ecology has acted outside both its own guidance and federal regulations in imposing unnecessary and highly expensive testing. Ecology seeks to significantly increase the testing schedule for many of the constituents of the existing permit. In addition, Ecology has added testing requirements for a number of additional constituents. Some of these additional testing requirements are far in excess of those required by federal regulations (40 C.F.R. § 503) and recommended in Ecology's own Water Quality Program Permit Writer's Manual. Taken as a

whole...burden on the City of Chehalis. In addition to...hire additional staff...increase utility rates...testing burden. Given this burden...rationale or justification...is unreasonable.

RESPONSE: Guidance for establishing monitoring schedules are taken from Chapter XIII. Monitoring Guidelines, Table XIII-1D in Ecology's Permit Writer's Manual, Publication 92-109 -- Recommended Minimum Monitoring For POTWs Discharging To Surface Waters (Trickling Filter Plants > 2.0 MGD Average Design Flow). The additional monitoring parameters were required because of the TMDL limits for dissolved oxygen. Dissolved oxygen, temperature, and ammonia are factors in the WWTP effluent that have a direct bearing on meeting the TMDL recommendations. Table XIII-1D represent the minimum recommended frequencies rather than the median recommended frequencies. However, the WWTP is subject to hydraulic upsets and discharges to a sensitive receiving water. Therefore, the monitoring schedule for the facility should be increased, but due to the good operation and maintenance of the facility and the required planning for meeting the TMDL recommendations, the monitoring was left at the minimum. It is imperative to maintain the recommended minimum testing schedule. These monitoring schedules are standardized and based on best conventional treatment for pollutants discharged from municipal wastewater treatment facilities.

A. POTW Effluent Monitoring

COMMENT: Under the City's current permit, sampling frequency for BOD5 and TSS is twice per week. Under the terms of the draft permit, Ecology seeks to increase the testing frequency for these constituents to three times per week. Because the draft fact sheet offers no justification for increasing the testing schedule, the sampling frequency for BOD5 and TSS and Fecal Coliform should remain at twice per week.

RESPONSE: See guidance for establishing minimum monitoring schedules in Ecology's Permit Writers Manual, Chapter XIII, page 41, Table XIII-1D for Trickling Filter Plants > 2.0 MGD (updated January 8, 1996). The limits and monitoring strategies for POTWs are standardized and based on best conventional treatment for pollutants generally associated with municipal sewage treatment plants. The important criteria to remember is that the receiving water is identified in the state's 303d list as an impaired water body. Therefore, it is imperative that at least these minimum monitoring schedules be maintained.

COMMENT: Ecology seeks to double the sampling points for ammonia-nitrogen to require testing for influent as well as final effluent. Because...does not offer any justification...remain the same as in the existing...once per day.

RESPONSE: Final effluent monitoring is only required for ammonia-nitrogen in the proposed permit.

COMMENT: Ecology seeks to double the sampling points for total residual chlorine to require such testing for chlorinated effluent as well as final effluent. Because...fact sheet...justification... remain the same as in the existing permit.

RESPONSE: Guidance for establishing monitoring schedules are taken from Ecology's Permit Writer's Manual, Table XIII-1D -- Recommended Minimum Monitoring For POTWs Discharging To Surface Waters, Trickling Filter Plants > 2.0 MGD Average Design Flow. Since the WWTP effluent is chlorinated and dechlorinated, the minimum monitoring guidelines apply. Monitoring residual chlorine in the effluent prior to dechlorination is an important step in detecting over chlorination. Excess chlorination and corresponding excess dechlorination with

sulfur dioxide results in dissolved oxygen reduction with a corresponding increase in BOD and COD, and a drop in the pH. It is important to monitor chlorine residual prior to dechlorination more often when the fecal coliform monitoring is not done on a daily basis. The over use of chlorine can be expensive and unnecessary with proper monitoring. Monitoring of chlorine residual could be an important step in identifying problems with not meeting fecal coliform limits before it may happen.

B. POTW Sludge Monitoring

COMMENT: The draft permit requires quarterly testing...recommended testing frequency for these constituents is annually for facilities that produce less than 290 metric tons of dry sludge per year. The City of Chehalis facility...produced approximately 111 tons of sludge. Additional testing should be eliminated entirely...for PCBs, priority pollutant metals and cyanide and priority pollutant organics

RESPONSE: Agree with recommended change to permit for sludge monitoring frequency to yearly for nitrogen and for sludge weight and % total solids, metals, pathogen reduction, and vector attraction reduction. This was an oversight due to inadequate information on total weight (tons) of sludge that is land applied during the development of the permit.

Agree with deleting the permit requirement for testing for PCBs, priority pollutant metals, and cyanide and priority pollutant organics. However, a requirement for two sludge priority pollutant scans, one during the last summer and one during the last winter, will replace that requirement in permit condition S2.B.

S4. PREVENTION OF FACILITY OVERLOADING

A. Design Criteria

COMMENT: The design criteria should be revised to reflect figures in the draft fact sheet (p. 15) and the May 1993 City of Chehalis Wastewater Treatment Plant Capacity Evaluation. The draft sheet (p.15) notes that Ecology approved this capacity evaluation report on May 15, 1995, The correct criteria values are as follows:

Average flow for the maximum month:	4.00 MGD
Influent BOD5 loading for the maximum month:	4,880 lbs/day
Influent TSS loading for the maximum month:	5,125 lbs/day
Design population:	14,458

RESPONSE: Agree with design criteria change (S4.A.) to reflect Ecology's approval (May 15, 1995) of the modification to increase influent loadings to the WWTP. The influent loadings to the plant were limited by the discharge capacity of the trickling filter influent pumps. These pumps, trickling filter spray arms, and other minor structural and mechanical changes were completed in the summer of 1995.

D. Infiltration and Reduction Program

COMMENT: In the draft fact sheet (p.7) Ecology acknowledges that the City of Chehalis has complied with the requirements under the 1988 consent decree for I/I removal (this consent decree is still in effect). Because all excessive I/I that is cost-effective to remove has been eliminated, this permit condition should be deleted.

RESPONSE: This permit condition is standard language for all permits for municipal wastewater facilities. This permit condition is used for tracking on-going changes to the WWTP influent flows and loadings and to the condition of the wastewater collection system. This information is needed to assess if and when the influent flows and loadings are exceeding 85 percent of the design values as required in S4.B. "Plans for Maintaining Adequate Capacity." When 85 percent of design influent flows and loadings are being exceeded, the permittee is required to submit a report to Ecology to describe how the WWTP facility will continue to meet permit limits with increasing flows and loadings. If the flows and/or loadings are projected to increase beyond the design capacity of the facility within the permit term and cause the WWTP to violate the permit limits, the permittee shall describe in the report their process to maintain the treatment capacity of the facility. This requirement is also used to track the condition of the collection system in regards to inflow and infiltration (I/I). Collection systems will deteriorate due to age and flows will increase due to I/I. Therefore, it is important to track this on a yearly bases.

S5. OPERATION AND MAINTENANCE OF MUNICIPAL FACILITIES

C. O & M Program

COMMENT: Because the City of Chehalis has already instituted an O & M program, this condition should be revised to state: "The Permittees shall *maintain* an adequate..."

RESPONSE: Agree. The first sentence of Special Condition S5.C. O & M Program shall be changed to read "The permittee shall maintain an adequate operation and maintenance program

for their sewage system." The rest of the section contains standard permit language to maintain records and to have records available for Ecology inspection.

F. Prevent Connection of Inflow

COMMENT: This condition is unnecessary as inflow has already been fully addressed in condition S4.D. In addition, the words "strictly enforce" is subject to varying interpretations and could subject the City of Chehalis to unintentional legal liability. Therefore, this condition should be deleted in its entirety.

RESPONSE: This condition not only refers to existing inflow connections but to future inflow connections. Condition S4.D does not fully address the problem with the approval of future inflow sources. The reference here is to remove existing and to prevent new connections of rainfall (or groundwater) induced flows directly into the sewage system. These inflow connections are classified as illegal by EPA; therefore, the sewer use ordinance shall specify removal of existing connections (when located) and shall not allow any new connections of inflow sources. The legal liability already exists and should be addressed in the permittees ordinances and be enforced.

S8. PRETREATMENT

D. Specific Prohibitions

COMMENT: **S8.D.6.** The word "oil" is missing and should be inserted between the words "mineral" and "origin."

RESPONSE: Agree. This suggested change will be made in Condition S8.D.6 of the permit.

E. Notification of Industrial User Violations

COMMENT: To clarify this condition, the following replacement language is suggested: "The Permittees shall notify the Department upon the discovery that any non-domestic user has violated the prohibitions listed in S8.C and S8.D above."

RESPONSE: Agree. The suggested sentence shall replace Condition S8.E in the proposed permit.

F. Pretreatment Support Tasks

COMMENT: The first paragraph of this condition is confusing and should be deleted. The following paragraph is a suggested replacement, based on our belief regarding the intent of this confusing paragraph:

> "In addition to immediate notification of new significant industrial users, the Permittees will, on an annual basis, survey all non-domestic dischargers in accordance with Department guidance for such surveys. No later than 180 days prior to the expiration of this permit, the Permittees shall send a copy of the most recent annual survey to the Department."

RESPONSE: Agree. This paragraph will be substituted for first paragraph in Condition S8.F. of the boilerplate language in the permit.

G. Pretreatment Ordinance with Local Limits

COMMENT: The deadlines in the draft permit are no longer applicable.

RESPONSE: Agree. The permit condition shall be deleted.

S9. PRIORITY POLLUTANT SCANS

A. Testing Requirements

COMMENTS: A date needs to be inserted in the last sentence.

RESPONSE: The last sentence shall read "A written report shall be submitted to Ecology within 60 days after each sampling event."

Requirements under this subsection have been numbered. The permit is revised to include a third requirement for submittal of the retest data within 60 days of the end of the one year retest period.

B. Monitoring Requirements

COMMENT: **S9.B.1**. The phrase "dry season (November through April)" should be revised to read "wet season (November through April)." However, the City of Chehalis feels that all monitoring requirements should be tied to river flow, rather than calendar months.

RESPONSE: Agree. The word "dry" in the second condition shall be changed to "wet." The reason for monitoring for priority pollutants during both the wet and dry seasons is to verify if there are increased pollutant levels due to storm events. If this is the case, it may be an indication that these pollutants are interring the collection system through means other than permitted by the City or Ecology. Storm induced pollutant levels may be from leaking underground storage tanks, uncovered material stored in the open, illegal drain or sump connections, etc.

COMMENT: **S9.B.3.** The last sentence of this condition states: "Continue testing all detects with the same schedule in section S11.B above." there is no section S11.B. either above or below.

RESPONSE: This reference was taken from a previous permit and should have been have been changed to refer to a minimum number of tests to perform a reasonable potential calculation (EPA's TSD document and Ecology's Permit Writer's Manual Chapter VI), to determine the potential for that pollutant to exceed Water Quality Standards. A minimum of one year of monthly effluent data should be taken to ensure effluent variability of that pollutant. Therefore, the subsection B.3 has been revised into two items to clarify the intent of this requirement to retest.

S10. OUTFALL EVALUATION

COMMENT: Any outfall evaluation report be part of a comprehensive regional planning effort.

RESPONSE: Agree. This paragraph will be revised in the permit to read as follows:

"If the existing outfall is to be utilized as the discharge point for compliance with the TMDL recommendations, the Permittees shall prepare design documents for evaluation and replacement of the outfall. The documents shall be prepared and submitted to Ecology for review and approval, in accordance with the requirements of WAC 173-240-110. The schedule for the design documents and construction of a new outfall shall coincide with the schedule for compliance with the TMDL recommendations in Administrative Order No. DE 95WQ-S395."

III.1.b. Comments Received on City of Chehalis NPDES Permit Fact Sheet

BACKGROUND INFORMATION

COMMENT: In the second paragraph, the reference to "Section 030(9)" should be changed to "Section 130(9)."

RESPONSE: Agree. The referenced change is noted.

DESCRIPTION OF THE FACILITY

Collection System

COMMENT: The statement "the system is experiencing occasional bypasses of the raw sewage..." should be deleted because it is not accurate. The last bypass of raw sewage from the system occurred on March 3, 1987, and lasted only approximately one-half hour. Since that time, the City of Chehalis has completed the rehabilitation of over 60, 000 feet of sewer lines and has not experienced any raw sewage bypasses. There were no bypasses of raw sewage during the last permit cycle.

RESPONSE: Agreed. The following second sentence of the first paragraph is changed to read "The collection system has not experienced any bypasses of raw sewage in 1995; however, the WWTP is not meeting federal and state secondary treatment standards."

Discharge

COMMENT: The May 1993 City of Chehalis Waste Water Treatment Plant Capacity Evaluation documented the hydraulic capacity of the WWTP to be 4.0 mgd limited only by the Trickling Filter Feed Pumps. These pumps are currently being upgraded to 7.5 MGD. The hydraulic capacity is now limited to 5.04 MGD by the capacity of the chlorine contact tanks. The flow should be revised to 4.0 MGD. Reliance on DMR data "over the last three years" to conclude that the facility discharges an annual average of 1.58 MGD into the Chehalis River is inappropriate because during this three-year period, 32,614 feet of main sewer line and related side sewers were replaced as part of the City of Chehalis' I/I removal program.

RESPONSE: As the City is well aware of, I/I reduction is difficult to predict and is dependent on the amount of rainfall in any given year. In the case of the effluent flows from the WWTP, the annual average discharges from 1992 through 1995 are 1.56, 1.49, 1.84, and 1.92 MGD, respectively. These numbers show that the discharges have actually increased. The average of three years of data also shows the same trend (1992 through 1994 = 1.63 MGD; 1993 through 1995 = 1.75 MGD). This is probably due to the amount of rainfall that has occurred over the last two years. The reference to the average yearly discharge is to show a relative relationship to the

dry and wet weather design flows and not meant to limit the WWTP to lower discharge rates. The facility will still have a design discharge flow rate of 4.0 MGD.

SUMMARY OF COMPLIANCE WITH PREVIOUS PERMIT AND CONSENT ORDER

COMMENT: The analysis of DMR data is inaccurate because it was based on DMRs between December 1990 through August 1994. This is the same period of time in which substantial I/I removal work was underway. Since December of 1990, the City of Chehalis has replaced 42, 112 feet of main sewer line, plus associated side sewers. Approximately 12,000 additional feet of line and side sewers are scheduled to be replaced in 1996.

RESPONSE: Agreed. The purpose of the table is to show the compliance with the permit since the permit was last reissued on December 10, 1990. The following two sentences is added to the end of the second paragraph to reflect the City's I/I removal program:

> "Since December 1990, the City of Chehalis has replaced 42,112 feet of main sewer line, plus associated side sewers, and will be replacing approximately 12,000 additional feet of line and side sewers in 1996."

WASTEWATER CHARACTERIZATION

COMMENT: The reference to "Appendix A" should be to "Appendix C." In Appendix C, the draft fact sheet (p. 36) lists only a series of equations for the EPA TSD. Ecology should show the calculation of water quality limits in the fact sheet, similar to the determination of reasonable potential on pages 34-35 of the draft fact sheet.

RESPONSE: Reference to "Appendix A" is deleted from the last paragraph. The following reference is added to clarify the City of Chehalis' pretreatment ordinance and the establishment of local limits. The last paragraph will be revised as follows:

> "The Permittee completed...December 1993. The results...the Chehalis River. The City of Chehalis was issued an Administrative Order to require the adoption of a pretreatment ordinance with local limits for a variety of metals. This pretreatment ordinance and local limits were adopted in 1995.
>
> See Section "WATER QUALITY-BASED EFFLUENT LIMITATIONS" for water quality limits for pollutants of concern. The chemical Aldrin...December 27, 1993. However, the influent...non-detect. This discrepancy...actual presence and concentration."
>
> The attached calculations are added to the Appendix C to clarify how limits were attained.

DESIGN CRITERIA

COMMENT: The design should be revised. The May 1993 City of Chehalis Wastewater Treatment Plant Capacity Evaluation demonstrates the capacity of the WWTP as follows:

Monthly Average Flow	4.0 MGD
Maximum Day Flow	9.41 MGD
Instantaneous Peak Flow	13.00 MGD

BOD Influent Loading	
Maximum Month	4,800 lbs/day
Maximum Week	7,229 lbs/day
TSS Influent Loading	
Maximum Month	5,125 lbs/day
Maximum Week	7,432 lbs/day
Design Population (ERUs)	
Limited by Max. Daily BOD	14,458

RESPONSE: In accordance with Ecology's approval of the WWTP modifications and the completion of construction of these modifications, the following changes to the Design Criteria are made:

"Average Flow For Maximum Month	4.00 MGD
Instantaneous Peak Flow	13.00 MGD
BOD Influent Loading	
Average For Maximum Month	4,800 lbs/day
TSS Influent Loading	
Average For Maximum Month	5,125 lbs/day
Design Population Equivalent	13,000"

These limits are not to be exceeded during the permit term. Therefore, the design criteria is limited to the above parameters and values. The referenced capacity evaluation projected population for the year 2013 at a high of 12,247 people.

WATER QUALITY-BASED EFFLUENT LIMITATIONS

COMMENT: The City of Chehalis objects to all data and effluent limitations that are in any way based on the TMDL Study.

RESPONSE: See response to "Flawed TMDL Analysis" in Section II.B of these responses to comments.

COMMENT: Additionally, the criterion to WAC 173-221 is not accurate in the following respects: (i) the fecal coliform limit is set upon "organisms" rather than "colonies;"

RESPONSE: The technology criteria in WAC 173-221-040 refers to "organisms"; therefore, the word "colonies" is changed to "organisms" in the fact sheet. However, WAC 173-201A, Water Quality Standard -- Surface Waters, Section 030 require fecal coliform to be reported as "colonies" per 100 ml. The fact is, when the number of fecal coliform are counted, it is more accurate to say that "colonies" are counted than "organisms."

COMMENT: and (ii) the exceptions to the standard pH limit are not stated.

RESPONSE: The statement in the fact sheet is correct as stated. There is no supporting reason why the three exceptions should be in a fact sheet. WAC 173-201A limits the pH to a range of 6.5 to 8.5 with a human-caused variation within the range of less than 0.5 units. This means that the limiting pH range is 6.0 to 9.0, which is the same range as stated in WAC 173-221-040.

COMMENT: The fact sheet should also contain a reference to WAC 173-221-050, which permits alternate effluent limits for trickling filters.

RESPONSE: Refer to the attached letter from Ecology (Linda Crerar, Assistant Director) to the City dated December 15, 1994, in regard to achieving the goal of Consent Decree 88202704-5. The proposed permit, Interim and Final Effluent Limitations, and Schedule for Compliance replaces the Consent Decree limits and schedule.

The Consent Decree included interim effluent limitations that were effective until the City meets final effluent limitations in the NPDES permit (WA-002110-5) or determines that all excessive I/I has been removed. If all excessive I/I has been removed, the City could then apply for alternative limits under WAC 173-221-050(1). However, the alternative discharge standards for trickling filters under Section 050 (1) only apply to facilities which were constructed and/or expanded prior to November 1984. Since the Chehalis WWTP was expanded after November 1984, the alternative discharge standards in Section 050(1) do not apply.

The City can request reduced effluent limitations for wastewater treatment facilities which receive less concentrated influent wastewater under WAC 173-221-050 (4) (a) and submit the supporting documentation for:

> (i) A lower percent removal effluent limitation than the discharge standards set forth in WAC 173-221-040 or in WAC 173-221-050, subsection 1; or
>
> (ii) A mass loading limit based on the lower percent removal.

To qualify for alternative effluent limitations because of less concentrated influent wastewater, the permittee must demonstrate the four requirements in WAC 173-221-050 (4) (b) will be met. To date, the permittee has demonstrated compliance with item 050 (4) (b) (iii), removal of excessive I/I.

Water Quality-Based Limits for Numeric Criteria

COMMENT: Ecology did not reference its source of information on temperature, pH, and background ammonia. Nor did Ecology provide any information on the recurrence level. In sum, the City of Chehalis is concerned about the integrity of the numbers used to calculate these parameters and effluent limits based on these parameters.

RESPONSE: The flow assumptions for critical low flow are discussed in Response to Permit Comments (Section II.B.1 (a), "Flawed TMDL Analysis"). Upstream ammonia was derived from TMDL model results. The May through October temperature and pH values for Chehalis correspond to the 90th percentile (cumulative frequency distribution analysis) of data from the TMDL study.

The method used to estimate the critical low flow for the TMDL and mixing zone calculations is described in the report and discussed in Response to "Flawed TMDL Analysis." The appropriate statistic for critical low flow for semiannual seasonal limits is the 7Q20. The 7Q20 for June 1 to September 15 and September 16 to May 31 was calculated for the major gaging stations and found to be not significantly different from the 7Q10. The 7Q20 for the November through April period was calculated and used for toxicity calculations for that period.

The information used in the calculations are correct as reported. The ambient data used in the calculations for limits in the permit are referenced in the section titled "Water Quality Study (Total Maximum Daily Load)" and again in section titled "Water Quality Modeling Methods

(TMDL). The data was taken from the DMRs submitted by the City and from the TMDL data by Ecology's EILS Program. The WWTP effluent temperature, ammonia-nitrogen, and pH were taken from the DMRs submitted to Ecology by the City of Chehalis. The ambient data is actual receiving water monitoring information that was gathered during two years of extensive monitoring in the Chehalis River and is reported in the TMDL document. All the data was analyzed in accordance with the EPA's TSD reasonable potential determination and Ecology's Permit Writer's Manual guidelines for 90th percentile value.

Toxic Pollutants

COMMENT: The water quality-based limits for the months May through October in the draft fact sheet (p. 20) are listed as 4.40 mg/L (monthly average, 6.60 mg/l (weekly average) and 9.00 mg/L (daily maximum). No technology-based limitations have been established by EPA or Ecology for ammonia, and the City does not believe there is a legal foundation for limits more stringent that water quality-based limits.

RESPONSE: That is correct. Neither EPA nor Ecology has established technology based limits for ammonia. These numbers refer to operational and water quality-based limitations (required by WAC 173-201A.040) for ammonia and were estimated based on actual treatment plant operational data submitted by the City on their monthly DMRs and the toxicity limits based on the water quality criteria. Ecology's Permit Writers Manual Section 3.3.13 "Compliance Schedules" and EPA's TSD Document, Appendix E, allow for interim effluent limits based on operational data. Operational data is analyzed in accordance with WAC 173-221-030 (11) "effluent concentrations consistently achievable through proper operation and maintenance." Ecology's permit writers have received approval to use the dissolved to total metals coefficients as published in the latest revisions to the National Toxic Rule (NTR, May 4, 1995). These coefficients will allow for higher limits for certain toxic metals in the receiving waters. The attached spreadsheets show these recommended changes.

COMMENT: In addition, Ecology used faulty dilution factors and unreasonable high effluent flows, improperly tied to calendar months rather than in-stream flows, and otherwise erred in establishing water- quality based limitations.

RESPONSE: The information used in the calculations are correct as reported. See Response to Comment on "Flawed TMDL Analyses" and above responses to "Toxic Pollutants."

MONITORING AND REPORTING

COMMENT: The language "insert type of treatment facility" should be deleted and replaced with "Trickling Filter/Activated Sludge."

RESPONSE: Agree. The type of facility is noted as "Trickling Filter/ Activated Sludge."

PRETREATMENT

Industrial Users

COMMENT: The fact sheet inaccurately states that the total design flow for the City of Chehalis meets the 5 MGD criteria for requiring a pretreatment program. The City of Chehalis' treatment plant is designed for a flow of 4.0 MGD.

RESPONSE: Agree. The following changes are made to the fact sheet:

* Delete the third paragraph.
* Insert the words ", in accordance with Federal Regulations 40 CFR 403.8(a)," between the words "SIU" and "some" in the first sentence of the fourth paragraph.
* Change the word "is" to "was" and insert the words "by Order" between the words "required" and "adopt" in the first sentence of the sixth paragraph.
* Delete the seventh paragraph.
* Change the eighth paragraph to read "Local limits were, by Order< to be codified by December 1, 1995."
* Delete the ninth paragraph.
* Add the next two sentences to the end of the tenth paragraph. "Prior to beginning this undertaking, the City is urged to consult Ecology to ensure the City has the latest guidance for conducting such surveys. This is particularly important in view of the fact that new categorical standards are periodically published, and Ecology particularly needs information on the industries which are subject to newly promulgated standards."

Local Limits Reevaluation

COMMENT: The City of Chehalis understood that the adoption and implementation of the pretreatment ordinance was going to be phased in over a period of years.

RESPONSE: This section on local limits reevaluation is generic to all permits. In the case of the Chehalis pretreatment ordinance, the City shall reevaluate the pollutant loadings from industries after the WWTP has met water quality limits established in this permit. Ecology will be administering the industrial permits in the Chehalis area to achieve compliance with the local limits established in the City of Chehalis Pretreatment Ordinance.

EXISTING OUTFALL REPLACEMENT EVALUATION

COMMENT: The Engineering Report should be included as part of the regional planning effort. the reference to Section S1.G of the permit is inaccurate because there is no Section S1.G.

RESPONSE: Agree. The fifth sentence is deleted and the fourth sentence is revised to "For compliance with the TMDL recommendations, the Permittee shall prepare outfall replacement design documents in accordance with the schedule in the companion Administrative Order No. DE 95WQ-S395."

APPENDIX C -- TECHNICAL CALCULATIONS

COMMENT: The City of Chehalis objects to background levels for copper, silver, and zinc set forth in the Appendix because page 20 of the fact sheet states that no reliable data are available.

RESPONSE: That is correct, no reliable background (ambient receiving water) metals data was available. That is why the background data was not included in the calculations, as per Ecology's Permit Writer's Manual, Chapter VI page 30, for determination of reasonable potential and effluent limits. If there were ambient data available for metals that showed some concentration levels of silver, copper, or zinc in the receiving water, it would have made the limits more stringent. It is to the permittees advantage, at this time, that no reliable background data was

available. However, the schedule in the order will contain a requirement to gather background receiving water concentrations for metals and receiving water hardness.

Appendix C is hereby replaced with the attached spreadsheet. This spreadsheet calculates water quality based permit limits based on the two value steady state model using the state Water Quality Standards contained in WAC 173-201A. The procedure and calculations are done per the procedures in Technical Support Document for Water Quality-based Toxics Control, U.S. EPA, March 1991(EPA/505/2-90) on page 99.

III.1.c. Comments Received by Letter Dated February 7, 1996

A letter dated February 7, 1996, was received from Preston Gates & Ellis, Attorneys, regarding the Upper Chehalis Basin TMDL study that was submitted to EPA on January 8, 1996. The letter did no address any comments on the permits for the City of Chehalis, City of Centralia, and Darigold.

COMMENT: The comments received were reiterated (word for word) by the cities and Darigold in their comments on the TMDL in their letters dated February 12, 1996.

RESPONSE: See responses to comments on the TMDL in section titled **II.4.b. Total Maximum Daily Load (TMDL) Study**, above.

III.2. CITY OF CENTRALIA (Letter from City of Centralia dated February 12, 1996)

III.2.a. Comments Received on City of Centralia NPDES Permit

SUMMARY OF SCHEDULED PERMIT REPORT SUBMITTALS

- **S1.D.**

COMMENT: As discussed above, the Cities and Darigold have proposed a comprehensive regional solution to water quality problems. The schedule for this condition should match all milestones agree to by the Cities and Darigold and Ecology.

RESPONSE: This schedule for compliance with final ammonia effluent limitations was inadvertently left in the permit Summary of Scheduled Permit Report Submittals and will be deleted from the permit. The new compliance schedule in S1.C is required by EPA for meeting the water quality-based effluent limitations established for the receiving water. The final limits and compliance schedule are required by WAC 173-220-140 and WAC 173-201A-160 (4). However, to remove any confusion with different schedules and to give consistency to the permit, the schedules will be combined and extended to give the City and Ecology flexibility for compliancy with the TMDL and the Water Quality Standards.

- **S4.D.**

COMMENT: The "Frequency: listed for the I/I Evaluation is "annual." However, the draft permit gives no indication that this evaluation is to be conducted on an annual basis. For the reasons discussed below in the substantive discussion of condition S4.D, "Frequency" should read "as required."

RESPONSE: This permit condition is standard language for all permits for municipal wastewater facilities. This permit condition is used for tracking on-going changes to the WWTP influent flows and loadings and to the condition of the wastewater collection system. This information is needed to assess if and when the influent flows and loadings are exceeding 85 percent of the design values as required in S4.B. "Plans for Maintaining Adequate Capacity." When 85 percent of design influent flows and loadings are being exceeded, the permittee is required to submit a report to Ecology to describe how the WWTP facility will continue to meet permit limits with increasing flows and loadings. If the flows and/or loadings are projected to increase beyond the design capacity of the facility within the permit term and cause the WWTP to violate the permit limits, the permittee shall describe in the report their process to maintain the treatment capacity of the facility. This requirement is also used to track the condition of the collection system in regards to inflow and infiltration (I/I). Collection systems will deteriorate due to age and flows will increase due to I/I. Therefore, it is important to track this on a yearly bases.

- **S7.D**.

COMMENT: The "Permit Section" is mislabeled and should read "S7.C"

RESPONSE: Ecology agrees, the proposed permit will reflect this change.

- **S9.C. and S10.C.**

COMMENT: The four listings under these two conditions do not match up with any text in the draft permit and should be deleted.

RESPONSE: These four listing was inadvertently left in the schedule of submittals after Ecology decided to not require the City to continue to characterize the Whole Effluent Toxicity of their discharge during this permit period. Therefore, these scheduled submittals will be deleted from the permit.

- **S11.**

COMMENT: The "Permit Section" is mislabeled and should read "S9"

RESPONSE: Ecology agrees, the proposed permit will reflect this change. This schedule shall also be changed to reflect the change in Section S2.B "Sludge Treatment" and S9 "Priority Pollutant Scans" that will required testing for priority pollutants in the sludge in years three and four. Section S9 has also been changed to require the priority pollutant scans for the effluent to be collected in years three and four and report all effluent and sludge scans 180 days prior to the expiration of this permit.

- **S12.**

COMMENT: The "Permit Section" is mislabeled and should read "S10"

RESPONSE: Ecology agrees, the proposed permit will reflect this change.

S1: <u>EFFLUENT LIMITATIONS</u>

A. <u>Effluent Limitations</u>

COMMENT: The City of Centralia...requests that interim technology based effluent limits for trickling filters be established for the next permitting period. ... City objects to all effluent limitations calculated using data from the TMDL Study or the TMDL recommendations. ...improvements to...existing treatment facility...cannot be completed within five years.

WAC 173-201A-160(b) allows establishment of interim effluent limitations...judgement of Ecology. WAC 173-201A-160(c) provides...compliance schedule...up to ten years. WAC 173-221-050, ...alternative effluent limitations for trickling filters, ...best professional judgement under WAC 173-201A-160(b).

Alternative effluent limitations... "...consistently achievable through proper operation and maintenance...", ...thirty-day average effluent. ... Based on this calculation, Centralia proposes the following interim effluent limits: May through October...November through April...

RESPONSE: The interim effluent limits are based on the technology/operational capability of the existing WWTP. The flow, pH, temperature, and background ammonia concentrations used to calculate the effluent limits were determine from extensive monitoring data taken in the Chehalis River during the TMDL study and at the critical flow period. The proposed permit limits were also based on DMR data from 1992 through 1994. The most current DMR data for the year 1995 was analyzed and the effluent limitations revised.

The DMR data was analyzed using EPA's Technical Support Document (TSD) For Water Quality-based Toxics Control (EPA/505/2-90-001, March 1991). Three years (1993 through 1995) of Discharge Monitoring Reports (DMR) data was utilized. The statistical analysis is based on Appendix E of the TSD and Ecology's Permit Writer's, Manual Chapter VI. This analysis determines the WWTP operational capability for meeting a certain statistical probability (95th percentile monthly) effluent limit. The permit term (five years) will provide the City ample time to determine the most cost-effective solution to meeting the TMDL recommendations, develop funding and implementation options, and complete design.

WAC 173-221 does provide the appropriate approach to setting limits based on operation and maintenance. However, WAC 173-221-050(5) requires the permittee to assure that the effluent (a) shall not cause water quality violations and (f) the WWTP must be able to meet all other permit requirements and conditions. The final effluent mass loadings established in the TMDL for BOD5 and ammonia are required to assure compliance with this WAC. Compliance with the Water Quality Standards takes precedence over standards based on technology and/or operational capability.

It is the intent of the implementation of the TMDL recommendations that, in the interim, the pollutants entering the surface water should be limited as much as possible. The treatment operational performance evaluation (TSD analysis, see above) of the WWTP shows that the effluent discharged during the critical period can meet the following limits:

May through October

Parameter	Monthly Average	Weekly Average
BOD5	35 mg/L, 400 lbs/day	52.5 mg/L, 600 lbs/day
TSS	35 mg/L, 500 lbs/day	52.5 mg/L, 750 lbs/day

Parameter	Monthly Average	Daily Maximum
Total Residual Cl2	0.015 mg/L	0.031 mg/L
Ammonia	20 mg/L, 225 lbs/day	30 mg/L, 340 lbs/day

Percent removals (monthly average)

BOD5	85%
TSS	80%

November through April

Parameter	Monthly Average	Weekly Average
BOD5	30 mg/L, 570 lbs/day	45 mg/L, 855 lbs/day
TSS	35 mg/L, 675 lbs/day	52.5 mg/L, 1013 lbs/day

Parameter	Monthly Average	Daily Maximum
Total Residual Cl2	0.016 mg/L	0.032 mg/L
Ammonia	13 mg/L, 202 lbs/day	22 mg/L, 281 lbs/day

Percent removals (monthly average)

BOD5	75%
TSS	70%

These limits will be included in the permit for TSS and BOD5 (mg/L, lbs/day and % removal)

B. Final Ammonia (NH3-N) Effluent Limitations

COMMENT: Even assuming...7Q10 event, ...provides an appropriate basis for setting final ammonia effluent limitations...the City of Centralia strongly disagrees with the approach Ecology has taken in utilizing this data. To set final effluent limitations...based on the worst case condition of maximum wastewater flow and minimum river flow. Then, ...applied this concentration without regard for actual wastewater flow. The condition...an impossible scenario and does not provide a rational basis upon which final effluent limitations may be calculated.

RESPONSE: Previously responded to, see responses to "Flawed TMDL Analysis."

COMMENT: The final ammonia effluent limitations should be based on the mass discharge rate calculated at the worst case condition rather than on the concentration. This approach...protective of water quality...dilution will be greater at low wastewater flows...function of the effluent mass discharge, not concentration.

RESPONSE: The procedure for calculating effluent limits based on critical receiving water flow (7Q10), WWTP dry weather design flow, pollutant concentrations in the receiving water and effluent are described in WAC 173-201A, Ecology's Permit Writer's Manual and EPA's TSD document. The TMDL limits the amount of ammonia based on its oxygen depletion based on the amount of lbs/day discharged into an impaired waterbody. However, ammonia is also a toxic pollutant due to its concentration in the receiving water based on the water quality criteria in WAC 173-201A.

COMMENT: The City of Centralia is willing...to comply with statutory and regulatory toxicity limits. However, ...not have to meet effluent limitations based on the TMDL, ... The draft permit contains inappropriate stringent final ammonia effluent limitations. to comply...spend millions of dollars on new facilities. The financial burden on the people...will be immense. Before Ecology imposes...needs to be certain of both its data and the enforceability of the TMDL recommendations.

RESPONSE: Ecology agrees that the City's questions with the TMDL, EPA's approval of the TMDL and the permits, and all legal concerns will be finalized prior to the City of Centralia's permit issuance. All requirements and schedules will be modified in response to these issues.

C. Effluent Mixing Zones

COMMENT: The City of Centralia is concerned with Ecology's assumptions for flow, pH, temperature, background ammonia concentrations, and other elements of the toxicity calculations. Of primary concern is the specification of the ammonia limits.

RESPONSE: See responses to "Flawed TMDL Analysis"

D. Schedule for Meeting Final Ammonia Effluent Limits

COMMENT: The draft permit...schedule for meeting final ammonia effluent limits...is not reasonable. In general, ... "Alternative/Planning Report" ...take as long as three years. This length of time...alternative evaluations, public involvement, and rates/financing, ... Following acceptance...preparation of contract documents from preliminary design to bidding...12 to 18 months. Following...construction...take two to three years, ... Therefore, the total time...could range from six to seven and one-half years. Moreover, ...no significant investment until TMDL issues have been resolved.

A small improvement...add nitrification and improved secondary treatment will take...five years. Modification of an existing...facility...slows the compliance schedule...still achieve compliance with NPDES permit limits during construction. The schedule...unrealistically assumes that no ...issues arise. This assumption fails...the time to implement the project will increase significantly. A more reasonable...ten years...to achieve...standards.

RESPONSE: Toxicity of ammonia is a separate issue from the ammonia limitations in the TMDL recommendations due to the low dissolved oxygen in the Chehalis River. Ammonia is acutely toxic to freshwater organisms, especially fish. In accordance with WAC 173-220-140 and 173-201A-160(4), Ecology is required to establish in the permit a schedule for compliance with water quality standards in the shortest, reasonable period of time to achieve the specified requirement. Therefore, Ecology has combined the compliance schedules for toxic ammonia and final effluent limitations in the permit, as per EPA's requirement (see Response to EPA Comment above). The schedule for compliance with the final limitations is based on previous compliance schedules administered by Ecology on similar projects. The scheduled items and compliance dates have been clarified to agree with the permit issuance date and WAC 173-220.

The issue here is the ammonia toxicity limitations that the WWTP effluent cannot meet. The City is required to address this issue through a planning, design, and construction process. The TMDL issue needs to be addressed at the same time. The TMDL issue in this case may supersede the ammonia toxicity issue if there are overriding issue, such as a relocated facility or regional treatment. A revised schedule for meeting ammonia toxicity limitations would be handled in an Administrative Order. However, at this time Ecology does not have enough information to make that decision. The compliance schedule in the permit for ammonia and the compliance schedule in the Order for the TMDL recommendations should give the City time to make that decision and for Ecology to consider any additional information that becomes available.

Ecology agrees that the best approach is a comprehensive approach (i.e., regional treatment). This approach has always been supported by Ecology. The requirements for meeting water quality criteria in the receiving waters is dependent on a local or regional approach to eliminating pollutants of concern which includes both point and non-point sources. It is the intent of the proposed permit and Administrative Order to implement all reasonable controls along the way to achieving compliance with water quality standards in the receiving waters and to ensure that all

possible methods to achieve this goal are in place. These reasonable controls may include monitoring, interim limits, compliance orders and schedules, final limits, local ordinances, and structural changes.

S2. TESTING SCHEDULE

Ecology has acted outside both its own guidance and federal regulations in imposing unnecessary and highly expensive testing. Ecology seeks to significantly increase the testing schedule for many of the constituents of the existing permit. In addition, Ecology has added testing requirements for a number of additional constituents. Some of these additional testing requirements are far in excess...federal regulations...Permit Writer' Manual. Taken as a whole... will impose an onerous burden...

A. Wastewater Treatment Plant

- COMMENT: The words "and sludge" in the first sentence should be deleted. The testing schedule for sludge is set forth in condition S2.B.

  RESPONSE: Agree, the words "and sludge" will be deleted in Condition S2.A.

- COMMENT: Under the City's current permit, sampling frequency for BOD5, TSS an Fecal Coliform is twice per week. Under the terms of the draft permit, ...increase the testing frequency...three times per week. Because the draft Fact Sheet offers on justification...should remain at twice per week.

  RESPONSE: See guidance for establishing minimum monitoring schedules in Ecology's Permit Writer's Manual (updated January 8, 1996). Reference to Table XIII-1D in the Ecology's Permit Writer's Manual (Publication No. 92-109) for trickling filter plants that discharge in excess of 2.0 MGD average design flow (maximum month). The limits and monitoring strategies for POTWs are standardized and based on Best Conventional Treatment for pollutants generally associated with municipal sewage treatment plants.

- COMMENT: Ecology seeks to double the sampling frequency of ammonia-nitrogen from once per week to twice per week and to require such testing for influent as well as effluent. Because...does not offer any justification...should remain the same as in the existing...once per week.

  RESPONSE: Final effluent monitoring is required for ammonia-nitrogen in the proposed permit. Influent monitoring for ammonia is not required. Reference Ecology's Permit Writer's Manual Table XIII-2I for all Trickling Filter Plants > 2.0 MGD and Administrative Orders. The important criteria to remember is that the receiving water (Chehalis River) is identified in the state's 303d list as an impaired water body. Therefore, it is imperative that at least a minimum monitoring schedules be maintained. The sampling frequency is minimal for a facility classified as a NPDES major by EPA. This schedule was actually reduced to twice per week instead of daily as recommended in the referenced table because the interim ammonia limits are based on WWTP performance.

B. Sludge Treatment

COMMENT: The draft permit requires quarterly testing....recommended testing frequency for these constituents is annually for facilities that produce less than 290 metric tons of dry sludge per year. The City of Centralia facility...producing less than 60-70 dry tons per year. Additional testing should be eliminated entirely...for PCBs, priority pollutant metals and cyanide and priority pollutant organics are very expensive. Unnecessary testing...unnecessary burden.

RESPONSE: Agree with recommended change to permit for sludge monitoring frequency to yearly for nitrogen and for sludge weight and % total solids, metals, pathogen reduction, and vector attraction reduction. This was an oversight due to inadequate information on total weight (tons) of sludge that is land applied during the development of the permit.

Agree with deleting the permit requirement for testing for PCBs, priority pollutant metals and cyanide and priority pollutant organics. However, a requirement for two sludge priority pollutant scans, one during the last summer and one during the last winter, will replace that requirement in permit condition S2.B.

S4. PREVENTION OF FACILITY OVERLOADING

D. Infiltration and Reduction Program and
E. Annual Assessment

COMMENT D: The language of this section is confusing and does not clearly enough convey what Ecology seeks to require and why. Regardless, the City of Centralia recommends that the infiltration and reduction program be included as part of the comprehensive regional plan set forth above. Additionally, annual reports should be eliminated except to report on construction progress.

COMMENT E: Ecology has the authority to waive the requirement for an annual assessment. Because the City of Centralia has been providing annual assessments to Ecology for a number of years, and because those annual assessments have not indicated a need for continuing review on an annual basis, we request that this condition be deleted. Alternatively, the City should be required to conduct only one such assessment, to be submitted to Ecology no later than 180 days prior to the expiration of the permit.

RESPONSE TO COMMENTS D. and E.: These permit conditions are standard language for all existing and new permits for municipal wastewater facilities. These permit conditions are used for tracking on-going changes to the WWTP influent flows and loadings and to the condition of the wastewater collection system. WAC 173-220-150(1)(g) requires "The permittee shall at all times properly operate and maintain their WWTP to achieve compliance with the terms and conditions of the permit. Where design criteria have been established, the permittee shall not allow flows or waste loadings to exceed approved design criteria, or revisions thereto."

This information is needed by Ecology to assess if and when the influent flows and loadings are exceeding 85 percent of the design values as required in S4.B. "Plans for Maintaining Adequate Capacity." When 85 percent of design influent flows and loadings are being exceeded, the permittee is then required to submit a report to Ecology to describe how the WWTP facility will continue to meet permit limits with increasing flows and loadings. If the flows and/or loadings are projected to increase beyond the design capacity of the facility within the permit term and cause the WWTP to violate the permit limits, the permittee shall describe in the report their process to maintain the treatment capacity of the facility. This requirement is also used to track the condition of the collection system in regards to inflow and infiltration (I/I). Collection

systems will deteriorate due to age and flows will increase due to I/I. Therefore, it is important to track this on a yearly bases.

S5. OPERATION AND MAINTENANCE OF MUNICIPAL FACILITIES

C. O & M Program

COMMENT: Because the City of Chehalis has already instituted an O & M program, this condition should be revised to state: "The Permittees shall *maintain* an adequate..."

RESPONSE: Agree. The first sentence of Special Condition S5.C. O & M Program shall be changed to read "The permittee shall maintain an adequate operation and maintenance program for their sewage system." The rest of the section contains standard permit language to maintain records and to have records available for Ecology inspection.

F. Prevent Connection of Inflow

COMMENT: This condition is unnecessary as inflow has already been fully addressed in condition S4.D. In addition, the words "strictly enforce" is subject to varying interpretations and could subject the City of Chehalis to unintentional legal liability. Therefore, this condition should be deleted in its entirety.

RESPONSE: This condition not only refers to existing inflow connections but to future inflow connections. Condition S4.D does not fully address the problem with the approval of future inflow sources. The reference here is to remove existing and to prevent new connections of rainfall (or groundwater) induced flows directly into the sewage system. These inflow connections are classified as illegal by EPA; therefore, the sewer use ordinance shall specify removal of existing connections (when located) and shall not allow any new connections of inflow sources. The legal liability already exists and should be addressed in the permittees ordinances and be enforced.

S8. PRETREATMENT

C. General Prohibitions

COMMENT: The final sentence of this condition is vague and an unnecessary new condition to the permit. 40 C.F.R. § 403.5(a) does not place affirmative obligation on the Permittee to disallow discharges that cause pass through or interference. The other provisions of condition S8 provide more than adequate protection against nondomestic dischargers who might introduce pollutant(s) that cause pass through or interference. Because this language is vague and unnecessary, it should be deleted.

RESPONSE: The authority for this sentence in the General prohibitions are identified in WAC 173-216-060(2)(b)(i) that requires dischargers restrictions and prohibitions for "Waste materials that pass through the treatment works untreated or interfere with its operation or performance." This general prohibition is also included in 40 CFR Part 403, Pretreatment Regulations, that are administered by Ecology.

D. Specific Prohibitions

COMMENT: **S8.D.6.** The word "oil" is missing and should be inserted between the words "mineral" and "origin."

RESPONSE: Agree. This suggested change will be made in Condition S8.D.6 of the permit.

E. Notification of Industrial User Violations

COMMENT: To clarify this condition, the following replacement language is suggested: "The Permittees shall notify the Department upon the discovery that any non-domestic user has violated the prohibitions listed in S8.C and S8.D above."

RESPONSE: Agree. The suggested sentence shall replace Condition S8.E in the proposed permit.

F. Pretreatment Support Tasks

COMMENT: The first paragraph of this condition is confusing and should be deleted. The following paragraph is a suggested replacement, based on our belief regarding the intent of this confusing paragraph:

> "In addition to immediate notification of new significant industrial users, the Permittees will, on an annual basis, survey all non-domestic dischargers in accordance with Department guidance for such surveys. No later than 180 days prior to the expiration of this permit, the Permittees shall send a copy of the most recent annual survey to the Department."

RESPONSE: Agree. This paragraph will be substituted for first paragraph in Condition S8.F. of the boilerplate language in the permit.

COMMENT: This language...existing permit. Establishing local limits requires significant time and effort. Any implementation period would also require a time delay to take into account the budget process. Six months may not be enough time for the City to address the budget and staffing issues that accompany this requirement. The City is currently in the process of revising City Ordinance 1708 (addressing controls on dischargers to the POTW). Given the efforts being undertaken to track and control industrial users, an expanded pretreatment program is premature.

RESPONSE: No change is necessary. The language in the last two paragraphs does not require the City to adopt a pretreatment ordinance with local limits at this time. The language is a notification that if and when an industrial discharged pollutant is identified and will cause pass through water quality problems or interferes with treatment, the permittee will then begin to develop appropriate local limits in accordance with Ecology's guidance. This may require one to two years of influent and effluent monitoring to determine removal rates and effluent concentrations for that pollutant. After establishment of the local limits the Permittee then is required to codify these limits into the City's ordinance.

S9. PRIORITY POLLUTANT SCANS

B. Monitoring Requirements

➧ **S9.B.3.**

COMMENT: The last sentence of this condition states: "Continue testing all detects with the same schedule in section S11.B above." there is no section S11.B. either above or below.

RESPONSE: This sentence was inadvertently left in the permit. Therefore, the sentence will be deleted from the permit. The procedures for collecting and analysis of sludge will also be added to this Section as per Response to Comment S2.B "Sludge Treatment," page 22.

S10. OUTFALL EVALUATION

COMMENT: To be consistent with the language of other provisions and to provide certainty as to the permit's actual start and end dates, the second sentence should read: "An inspection report shall be submitted to the Department no later than 180 days prior to the permit expiration." The reference to the permit application seems necessary.

RESPONSE: Agree. This paragraph will be revised in the permit to include a date that will be based on 180 days from the actual issuance date of the permit.

III.2.b. Comments Received on City of Centralia NPDES Permit Fact Sheet

DESCRIPTION OF THE FACILITY

Treatment Process

COMMENT: The description of the emergency alarm system is no longer accurate. The following language is suggested as a statement: "The emergency alarm system for the plant and pump stations is tied to an Aquatrol telemetry system and incorporates an answering service to notify the on-call operator in the event of an alarm activation."

RESPONSE: The suggested language for the alarm system will replace the 4th sentence of the 3rd paragraph.

COMMENT: The City has undertaken all modification recommendations set forth in the Pump Station Engineering Report and is compliance with Ecology's Criteria for Sewage Works Design.

RESPONSE: The reference to the Pump Station Engineering Report in the 3rd sentence of the 4th paragraph will be changed to reflect completion of the recommendations. However, the City should submit to Ecology a letter identifying the recommendations, action taken and date of completion as per Section S4.F of the proposed permit.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

COMMENT: The fecal coliform parameter should probably be described as "colonies" rather than "organisms."

RESPONSE: The technology criteria in WAC 173-221-040 refers to "organisms"; therefore, the word "colonies" will be changed to "organisms" in the fact sheet. However, WAC 173-201A, Water Quality Standard -- Surface Waters, Section 030 require fecal coliform to be reported as "colonies" per 100 ml. The fact is, when the number of fecal coliform are counted, it is more accurate to say that "colonies" are counted than "organisms."

COMMENT: The fact sheet gives no bases for its selection of 80% removal of BOD during the months of November through April. As noted above, the City of Centralia has proposed alternative interim limits.

RESPONSE: The fact sheet is revised to include this description of the performance based Interim Permit Limitation of 80 percent removal of BOD5. "The percent removal was calculated using DMR data from January 1991 through December 1994. The data was analyzed by the EPA TSD, Appendix E method as described in Ecology's Permit Writer's Manual and required for all permits with interim effluent limits. Since the permit interim limits were initially established, one year of additional DMR data was available for analysis. This data supports the percent removals as listed in the responses to comments for Permit Condition S1:A Effluent Limitations.

WATER QUALITY-BASED EFFLUENT LIMITATIONS

COMMENT: As noted earlier, the City of Centralia disputes any data or calculations utilizing or based on the TMDL recommendations. In addition, the City of Centralia is confused by and concerned with what appears to be the use of inconsistent numbers for the 7Q10 numbers for mixing zone authorization. The fact sheet sets forth at least two different 7Q10 numbers, both of which are different from the 7Q10 number set forth in the disputed TMDL Study.[3]

[3] In addition, Appendix C sets forth 7Q20 numbers. Ecology's use of 7Q20 numbers is, at best, inconsistent with the 7Q10 number used in the TMDL.

RESPONSE: Table I.1 in Appendix I of the TMDL document was developed using a yearly 7Q10 flow regime: however, the permit was developed for seasonal limits. To achieve the same level of probability equivalent to the 7Q10 of one exceedance in three years, the 7Q20 flows must be used for the seasonal limit calculations. The attached memo from Paul Pickett to Jerry Anderson (no date) calculated these flows for the Chehalis River at Centralia (below the WWTP outfall) as: May through October flow of 68.1 CFS; November through April flow of 218.6 cfs. The dry weather flows in the Chehalis River upstream of the WWTP outfall were based on a WWTP dry weather flow of 1.81 MGD (2.8 cfs) and a wet weather (design) flow of 4.3 MGD (6.65 cfs) for 7Q20 flows of 65.3 cfs and 211.85 cfs, respectively.

Water Quality-Based Limits for Numeric Criteria

COMMENT: **Flow, Temperature, pH, and Toxic Pollutants**: Ecology has set forth a wholly confusing array of numbers used in its calculations to set limits for these parameters. For example, several different numbers for both the acute and chronic dilution factors are employed in calculating the critical condition. Why were no seasonal differences listed for ammonia and total chlorine residual? How were the limits for these parameters for the months of November through April calculated? Ecology did not reference its source of information on temperature, pH and background ammonia. Nor did Ecology provide any information on the recurrence level. In sum, the City of Centralia is concerned about the integrity of the numbers and methods used to calculate these parameters and effluent limits based on these parameters.

RESPONSE: The following response replaces Appendix C of the Fact Sheet. The flow assumptions for critical low flow are discussed on page 9 (Response to Comment 1.a). Upstream ammonia was derived from TMDL model results. The May through October temperature and pH values for Chehalis correspond to the 90th percentile of data from the TMDL study. The Centralia values do not correspond to the 90th percentile of TMDL data; the appropriate May

through October temperature and pH values from the TMDL data would be 24.5 ^{o}C and pH 7.4. The TMDL study had no data from the November through April period.

References: Ecology's Permit Writer's Manual Chapter VI, Table VI-1 for requirements to determine different receiving water and WWTP flows for calculating acute and chronic dilution factors; WAC 173-201A-100 for the acute and chronic dilution zone descriptions and the corresponding flow restrictions; and the above Response to Comments for the 7Q20 flow descriptions for the two seasonal periods (May through October and November through April). Critical design conditions for acute and chronic mixing zones are defined as follows:

Acute Mixing Zone

Acute plant effluent flow -- The highest daily maximum plant effluent flow for the past three years during the period when the critical flow or condition is likely to occur. For seasonal limits, there are two critical periods, May through October (1.81 MGD) and November through April (5.3 MGD).

Acute receiving water flow -- Design river flow is defined as 2.5 % of the 7Q10 river flow. However, for seasonal limits the design river flow is 2.5% of the 7Q20 flow for each season, May through October (65.3 x 2.5% = 1.63 cfs, 1.06 MGD) and November through April (218.6 x 2.5% = 5.46 cfs, 3.53 MGD).

Chronic Mixing Zone

Chronic plant effluent flow -- The average design flow for the maximum monthly during the period when the critical flow or condition is likely to occur. For seasonal limits, there are two critical periods, May through October (2.0 MGD) and November through April (4.3 MGD).

Chronic receiving water flow -- Design river flow is defined as 25 % of the 7Q10 river flow. Therefore, for seasonal limits the design river flow is 25% of the 7Q20 flow for each season, May through October (65.3 x 25% = 16.32 cfs, 10.55 MGD) and November through April (218.6 x 25% = 54.65 cfs, 35.32 MGD).

However, the Centralia WWTP effluent mixing study, for the May through October critical condition, showed that the measured dilution factor (4.0) was less than that calculated from critical effluent flow and 25% of the 7Q20 receiving water flow (1 + (10.55/2) = 6.28 > 4.0).

This may be confusing to the untrained person who reviews a permit; however, the permit writer's procedures are clear and are based on EPA guidance and existing regulations. Each critical period, May through October and November through April for each mixing zone, acute and chronic, will have a dilution ratio calculated as follows:

Chronic Zone Dilution factors -- Dilution Factors -- May through October = 4.0; November through April = 1 + (35.32/4.3) = 9.2 *

Acute Zone Dilution Factors -- May through October = 1 + (1.06/1.81) = 1.60; November through April = 1 + (3.53/5.3) = 1.67

*Effluent limits for ammonia and chlorine that are calculated for the Nov/Apr period are limited by the acute dilution factor not by the chronic dilution factor; therefore, even if the chronic dilution factor was lower (6.8:1), the limits would not change.

Schedule for Meeting Final Ammonia Effluent Limits

COMMENT: As discussed above, final ammonia effluent limits should be replaced with the interim limits proposed by the City of Centralia. Compliance with the schedule proposed in the draft fact sheet is not feasible, and this schedule conflicts with the schedule set forth in the draft permit.

RESPONSE: Agree, the final ammonia effluent limits and schedule for compliance will be moved to the Administrative Order to allow for flexibility in timing of required items and submittal dates. Therefore, this section of the fact sheet will be deleted.

III.2.c. Comments Received by Letter Dated February 7, 1996

A letter dated February 7, 1996, was received from Preston Gates & Ellis, Attorneys, regarding the Upper Chehalis Basin TMDL study that was submitted to EPA on January 8, 1996. The letter did no address any comments on the permits for the City of Chehalis, City of Centralia, and Darigold.

COMMENT: The comments received were reiterated (word for word) by the cities and Darigold in their comments on the TMDL in their letters dated February 12, 1996.

RESPONSE: See responses to comments on the TMDL in section titled **II.4.b. Total Maximum Daily Load (TMDL) Study**, above.

III.3. DARIGOLD (Letter from Darigold dated February 12, 1996)

III.3.a. Comments Received on Darigold NPDES Permit

COMMENT: The proposed permit lowers the monthly average limit on BOD_5, contrary to the expectations of Darigold. This reduction from 75 to 60 lbs/day may be based upon the fact that Darigold submitted one document stating the level of future production, then proceeded to go to a lower level of production without notifying Ecology.

RESPONSE: The original limits were set based on information submitted by Darigold. When it was discovered that the original information was unrealistic for the midterm, the limit was set to reflect actual conditions.

The permit will be modified in two places. One, the current monthly average BOD_5 permit limit will continue in the new permit. Two, the reapplication provisions of General Condition G7 will be modified to require a new application when wastewater pollutant loads are substantially increased or reduced.

COMMENT: The permit limits for ammonia have been arbitrarily lowered to an impossible level. The current permit limits of 3 mg/L monthly average and 6 mg/L daily maximum have been reduced to 2 mg/L and 5 mg/L respectively.

RESPONSE: The permit limit was revised downward to duplicate the limits proposed by the City of Chehalis for the Chehalis Wastewater Treatment Plant.

Since that time, the ammonia limits have been revised for the City of Chehalis. The ammonia limits for Darigold have been revised to retain those of the original permit, 3 mg/L monthly average and 6 mg/L daily maximum.

III.3.B. **FACT SHEET COMMENTS**

1. COMMENT: The permit writer has confused the City of Centralia and City of Chehalis Treatment Plants.

   RESPONSE: This error is acknowledged; the permit has been corrected.

2. COMMENT: Interstate 10 is described.

   RESPONSE: This error is acknowledged; Interstate 10 will be corrected to read Interstate 5.

3. COMMENT: The table on page 6 shows the entry "TNTC" under the TSS column on 7/92 should be under the fecal coliform column.

   RESPONSE: This error is acknowledged; the text has been corrected.

4. COMMENT: On page 8 the BOD_5 Input is 33,258. This number should be 332,579.

   RESPONSE: The error is acknowledged; the text has been corrected.

III.3.C. **MISCELLANEOUS COMMENTS**

Preface

It is difficult to reply to a comment that does not address the draft permit directly. Whatever events may have transpired in the past, they do not alter the law as currently written. An attempt will, however, be made to reply to this historical narrative.

Comments on the TMDL study are covered in II(4)(b) above. Comments peripheral to the TMDL study not contained in the City of Centralia comments or the City of Chehalis comments will be answered here.

1. COMMENT: Darigold assumed that the 1987 permit requirements would not change for a very long time in the future.

   RESPONSE: By law, permits are written for a maximum period of five years. The 1987 permit has been in place for nine years. The draft permit allows a continuation of the present limits until July 1, 2003, and a study period before any construction begins until July 1, 2001. This comment does not specify what period of time Darigold thought the 1987 permit was good for, but the expectation that the permit limits would remain static for longer than 16 years (1987-2003) was unrealistic. Sixteen years is a very long time when the regulation time is five years.

   COMMENT: The Permittee does not understand what zero means.

   RESPONSE: The zero discharge final limits for BOD_5 and ammonia mean there is no authorization to release these pollutants to the Chehalis River during the seasonal period May 1 through October 31. These requirements implement the approved TMDL report. A partial list of the local dischargers who have achieved zero discharge to surface waters or to the local municipal treatment plants are: C.W. Nielsen Mfg., Inc.; Quali-Cast Foundry Inc.; John H. Harland Inc. (two permits); and the National Frozen Food Production Facility.

3. COMMENT: Is there any proof that zero discharge would make a significant difference in the Chehalis River?

   RESPONSE: The regulations assume that if you cease to discharge a pollutant to a body of water, the body of water is improved in quality. Nothing in the regulations therefore require that proof of significant improvement be shown before requirements are set.

4. COMMENT: The requirement of zero discharge is arbitrary.

   RESPONSE: The requirement of zero discharge was arrived at by conducting a thorough total maximum daily load study. It is solidly grounded in law and science.

5. COMMENT: Imposing a zero standard prohibits innovative technology.

RESPONSE: Many options exist to cease discharge to the Chehalis River; most of which are innovative. The list of zero dischargers above is a list of dischargers who have adapted innovative technologies. The pilot plant projects listed in the response includes one zero discharge option (evaporation).