STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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Publication # 94-10-202

September 9, 1994

Mr. Charles Findley, Director
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, WA 98101

Dear Mr. Findley:

In accordance with 40 CFR 130.7 and Section 303(d)(1) of the Clean Water Act, the Department of Ecology submits, for review and approval, the Total Maximum Daily Loads (TMDLs) for biochemical oxygen demand and ammonia-nitrogen for numerous streams in the Puyallup River basin. Enclosed are the TMDL fact sheet and applicable supporting documentation for these TMDLs.
If you have any questions or if we can clarify any of the information enclosed, please contact Steve Butkus of my staff at (206) 407-6482.

Sincerely,
for MTL

Michael T. Llewelyn
Program Manager
Water Quality Program

MTL:SB:lb
Enclosure

cc: Lynn Singleton
Bill Backous

**TOTAL MAXIMUM DAILY LOAD**
**FACT SHEET**

Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Developed pursuant to 40 CFR 130.7 and the Federal Clean Water Act

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**WATERBODY SEGMENTS:**

Twenty-three waterbody segments in the Puyallup River basin have been assigned wasteload allocations (WLA) and/or load allocations (LA). These segments are described in Table 1.

| **TMDL PARAMETERS:** | **APPLICABLE RULES:** |
|---|---|
| Biochemical Oxygen Demand | WAC 173-201A-030(2)(c)(ii)(A)<br>WAC 173-201A-030(3)(c)(ii)(A) |
| Ammonia-N | WAC 173-201A-030(2)(c)(ii)(A)<br>WAC 173-201A-030(3)(c)(ii)(A)<br>WAC 173-201A-040(3) |

**SOURCE ALLOCATIONS AND LOADING CAPACITIES:**

All allocations shown in the accompanying tables for 5-day BOD (Table 2) and Ammonia-N (Table 3) apply during the critical season period of May through October.

**TECHNICAL DOCUMENTS:**

Pelletier, G. 1990. Puyallup River Waste Load Allocations - Scope of Work. Washington Department of Ecology, February 28, 1990.

Pelletier, G. 1993. Puyallup River Total Maximum Daily Load for Biochemical Oxygen Demand, Ammonia, and Residual Chlorine. Washington Department of Ecology, June 1993.

Pelletier, G. 1994. Design conditions for seasonal permits for selected NPDES dischargers in the Puyallup River basin. Memorandum to Kathy Cupps dated February 14, 1994. Department of Ecology.

Pelletier, G. 1994. Addendum to the 1993 Puyallup River TMDL Report. Memorandum to Bill Backous dated July 22, 1994. Department of Ecology.

**PUBLIC PARTICIPATION:**

Two informational meetings were held prior to completion of the study. A public meeting was held on July 9, 1990, to inform interested and affected parties about the initiation of the TMDL study. Approximately 85 individuals were invited to the meeting. On December 15, 1992, a presentation of the on-going study was given to the Pierce County Conservation District.

On September 23, 1993, the study report with the recommended TMDL allocation strategy, was presented at a public meeting. Comments from the public were accepted for a 5-week period. A responsiveness summary was prepared for all comments received. The TMDL was modified based on these comments and changes are reflected in an addendum to the original reports and in the NPDES permits.

The proposed wasteload allocations were incorporated as effluent limitation conditions in NPDES permits. Public notices were published in the legal section of the local newspaper announcing the availability of the draft permits for review. Comments on all draft permits were accepted for a 30-day comment period after notification.

**TMDL IMPLEMENTATION:**

The WLAs will be implemented through effluent limitation conditions in NPDES permits. The LAs will be maintained through Ecology's voluntary compliance program for nonpoint source pollution control. Pollution sources not under NPDES authority can be controlled through an administrative order if voluntary compliance fails.

**MONITORING TMDL EFFECTIVENESS:**

Monitoring data will be collected during 1996 and 1997 as part of the next assessment cycle of Ecology's Watershed approach. Permits will be modified and other corrective actions will be initiated during 1999 to assure the TMDL remains effective at attainment of water quality standards.

## Table 1. Waterbody Segment Descriptions

| SEGMENT NUMBER | SEGMENT NAME | SEGMENT BOUNDARY DESCRIPTION |
|---|---|---|
| WA-10-1010 | Puyallup River | Mouth to RM 1.0 |
| WA-10-1020 | Puyallup River | RM 1.0 to White River (RM 10.4) |
| WA-10-1021 | Clear Creek | Mouth at Puyallup RM 3.9 to headwaters |
| WA-10-1022 | Swan Creek | Mouth at Clear Creek RM 0.2 to headwaters |
| WA-10-1025 | Clarks Creek | Mouth at Puyallup RM 5.8 to headwaters |
| WA-10-1027 | Diru Creek | Mouth at Clarks Creek RM 1.5 to headwaters |
| WA-10-1030 | White River | Mouth at Puyallup RM 10.4 to Mud Mountain Dam (RM 29.6) |
| WA-10-1031 | Unnamed Creek S | Mouth at White RM 1.3 to headwaters |
| WA-10-1032 | Boise Creek | Mouth at White RM 23.3 to headwaters |
| WA-10-1033 | Strawberry (Salmon) Creek | Mouth at White RM 2.1 to headwaters |
| WA-10-1035 | Lake Tapps Outflow Canal | Mouth at White RM 3.5 to headwaters |
| WA-10-1036 | Bowman Creek | Mouth at White RM 7.65 to headwaters |
| WA-10-1038 | Unnamed Creek T | Mouth at White RM 15.4 to headwaters |
| WA-10-1050 | Puyallup River | White River to Fennel Creek (RM 15.6) |
| WA-10-1055 | Unnamed Creek R | Mouth at Puyallup RM 13.1 to headwaters |
| WA-10-1060 | Puyallup River | Fennel Creek to Kings Creek (RM 31.6) |
| WA-10-1061 | Fennel Creek | Mouth at Puyallup RM 15.5 to headwaters |
| WA-10-1062 | Canyonfalls Creek | Mouth at Puyallup RM 16.2 to headwaters |
| WA-10-1080 | Carbon River | Mouth at Puyallup RM 17.9 to headwaters |
| WA-10-1081 | Voight Creek | Mouth at Carbon RM 4.0 to headwaters |
| WA-10-1085 | South Prarie Creek | Mouth at Carbon RM 5.9 to headwaters |
| WA-10-1087 | Wilkenson Creek | Mouth at South Prarie Creek RM 6.7 to headwaters |
| WA-10-1090 | Lily Creek | Mouth at Carbon RM 11.3 to headwaters |

Table 2. Total Maximum Daily Load for Biochemical Oxygen Demand by Waterbody Segment

| SEGMENT NUMBER | ALLOCATION TYPE | SOURCE DESCRIPTION | 5-day BOD (lbs/day) |
|---|---|---|---|
| WA-10-1020 | WLA | City of Puyallup WTP | 2085.0 |
| | WLA | Matsushita Semiconductor | 175.0 |
| WA-10-1021 | WLA | Troutco, Inc. | 273.4 |
| WA-10-1022 | LA | Swan Creek at Mouth | 12.8 |
| WA-10-1025 | WLA | Puyallup Trout Hatchery (WDFW) | 213.2 |
| | LA | Clarks Creek above Hatchery | 408.2 |
| WA-10-1027 | WLA | Puyallup Tribe Hatchery | 15.3 |
| | LA | Diru Creek above Hatchery | 1.2 |
| WA-10-1030 | WLA | City of Sumner WTP | 1284.0 |
| | WLA | City of Buckley WTP | 280.0 |
| | WLA | Town of Enumclaw WTP | 504.0 |
| | WLA | Rainier State School WTP | 61.0 |
| | WLA | Fleischmann's Yeast | 35.0 |
| | WLA | Sononco Products | 673.0 |
| | WLA | Beatrice Cheese | 42.0 |
| | WLA | Muckelshoot Tribe Hatchery | 84.4 |
| | LA | White River at RM 25.2 | 2609.5 |
| WA-10-1031 | LA | Unnamed Creek S at Mouth | 23.5 |
| WA-10-1032 | LA | Boise Creek at RM 0.1 | 42.2 |
| WA-10-1033 | LA | Strawberry Creek at Mouth | 61.9 |
| WA-10-1035 | LA | Lake Tapps Outflow Canal at Mouth | 2294.1 |
| WA-10-1036 | LA | Bowman Creek at Mouth | 3.3 |
| WA-10-1038 | LA | Unnamed Creek T at Mouth | 9.2 |
| WA-10-1055 | LA | Unnamed Creek R at Mouth | 34.9 |
| WA-10-1060 | LA | Puyallup River at RM 18.0 | 2299.0 |
| WA-10-1061 | LA | Fennel Creek at Mouth | 68.7 |

Table 2. Total Maximum Daily Load for Biochemical Oxygen Demand by Waterbody Segment - continued.

| | | | |
|---|---|---|---|
| WA-10-1062 | WLA | Trout Spring, Inc. | 389.3 |
| WA-10-1080 | WLA | Town of Orting WTP | 221.0 |
| | WLA | Town of Carbonado WTP | 38.0 |
| | LA | Carbon River at RM 16.1 | 1598.0 |
| WA-10-1081 | WLA | Puyallup Fish Hatchery (WDFW) | 364.8 |
| WA-10-1085 | WLA | South Prairie WTP | 9.5 |
| | LA | South Prairie Creek at RM 7.4 | 280.3 |
| WA-10-1087 | WLA | Town of Wilkeson WTP | 26.0 |
| | LA | Wilkeson Creek at RM 4.0 | 111.6 |
| WA-10-1090 | LA | Lily Creek at Mouth | 19.8 |
| Reserved Load For Growth | | | 3,669.9 |
| Total of Allocations | | | 20,322.0 |
| Loading Capacity | | | 20,322.0 |

Table 3. Total Maximum Daily Load for Ammonia Nitrogen by Waterbody Segment

| SEGMENT NUMBER | ALLOCATION TYPE | SOURCE DESCRIPTION | Total Ammonia N (lbsN/day) |
|---|---|---|---|
| WA-10-1020 | WLA | City of Puyallup WTP | 880.0 |
| | WLA | Matsushita Semiconductor | 240.0 |
| WA-10-1021 | WLA | Troutco, Inc. | 38.0 |
| WA-10-1022 | LA | Swan Creek at Mouth | 0.7 |
| WA-10-1025 | WLA | Puyallup Trout Hatchery (WDFW) | 26.0 |
| | LA | Clarks Creek above Hatchery | 2.5 |
| WA-10-1027 | WLA | Puyallup Tribe Hatchery | 2.0 |
| | LA | Diru Creek above Hatchery | 0.03 |
| WA-10-1030 | WLA | City of Sumner WTP | 213.0 |
| | WLA | City of Buckley WTP | 62.0 |
| | WLA | Town of Enumclaw WTP | 99.0 |
| | WLA | Rainier State School WTP | 33.0 |
| | WLA | Fleischmann's Yeast | 21.3 |
| | WLA | Sononco Products | 1.1 |
| | WLA | Beatrice Cheese | 21.0 |
| | WLA | Muckelshoot Tribe Hatchery | 4.0 |
| | LA | White River at RM 25.2 | 75.2 |
| WA-10-1031 | LA | Unnamed Creek S at Mouth | 1.3 |
| WA-10-1032 | LA | Boise Creek at RM 0.1 | 1.2 |
| WA-10-1033 | LA | Strawberry Creek at Mouth | 1.2 |
| WA-10-1035 | LA | Lake Tapps Outflow Canal at Mouth | 66.1 |
| WA-10-1036 | LA | Bowman Creek at Mouth | 0.1 |
| WA-10-1038 | LA | Unnamed Creek T at Mouth | 0.1 |
| WA-10-1055 | LA | Unnamed Creek R at Mouth | 1.4 |
| WA-10-1060 | LA | Puyallup River at RM 18.0 | 27.6 |
| WA-10-1061 | LA | Fennel Creek at Mouth | 0.8 |

Table 3. Total Maximum Daily Load for Ammonia Nitrogen by Waterbody Segment - continued.

| | | | |
|---|---|---|---|
| WA-10-1062 | WLA | Trout Spring, Inc. | 74.0 |
| WA-10-1080 | WLA | Town of Orting WTP | 186.5 |
| | WLA | Town of Carbonado WTP | 21.0 |
| | LA | Carbon River at RM 16.1 | 14.1 |
| WA-10-1081 | WLA | Puyallup Fish Hatchery (WDFW) | 13.0 |
| WA-10-1085 | WLA | South Prairie WTP | 8.0 |
| | LA | South Prairie Creek at RM 7.4 | 2.8 |
| WA-10-1087 | WLA | Town of Wilkeson WTP | 6.5 |
| | LA | Wilkeson Creek at RM 4.0 | 1.0 |
| WA-10-1090 | LA | Lily Creek at Mouth | 0.3 |
| Reserved Load For Growth | | | 1,200.0 |
| Total of Allocations | | | 3,350.0 |
| Loading Capacity | | | 3,350.0 |