TOTAL MAXIMUM DAILY LOAD

WATER QUALITY MANAGEMENT PLAN COMPONENT

Department of Environmental Quality
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Telephone: (503) 229-5696

Developed pursuant to ORS 468.730 and The Federal Clean Water Act

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WATER QUALITY LIMITED SEGMENT:

Garrison Lake

RECEIVING SYSTEM INFORMATION:

Basin: South Coast
Subbasin: Sixes / Elk
County: Curry

WQ STANDARD NOT ATTAINED:

Aesthetics
Algal Growth

APPLICABLE RULES:

OAR 340-41-322
OAR 340-41-325

TMDL PARAMETER:

Total Phosphorus

OAR 340-41-006
OAR 340-41-150

SOURCES COVERED BY THIS TMDL:

Source Number	Allocation Type	Source Description
001	LA	Garrison Lake tributaries
002	WLA	Port Orford STP

WATER QUALITY MANAGEMENT ACTIVITIES AND IMPLEMENTATION

Until this TMDL is modified, point source permits will be reissued as they are re-opened or expire to include limits for complying with the established waste loads. Where reduced loads are needed, compliance schedules will be specified for reaching those loads. Nonpoint sources will be addressed through specified schedules for developing and implementing needed control programs. All requirements, limitations, and conditions are set forth in the attached sections as follows:

SECTION A

Pollutant Discharge Loads not to be Exceeded

1. Pollutant Discharge Loads not to be Exceeded After TMDL Issuance (Interim Loads based on existing conditions prior to implementation of controls).

Source Number	Source Description	ANNUAL AVERAGE TOTAL PHOSPHORUS LOAD (pounds per year)
001	Garrison Lake tributaries	576
002	Port Orford STP	1224
	TMDL (Interim)	1800
	Loading Capacity	576

a. The loading capacity of Garrison Lake is based on attaining a monthly median concentration of total phosphorus equal to 25 ug/L.

2. Pollutant Discharge Limitations not to be Exceeded After Attainment of Operational Level as Required by Section C of this TMDL (Final Loads).

Source Number	Source Description	ANNUAL AVERAGE TOTAL PHOSPHORUS LOAD (pounds per year)
001	Garrison Lake tributaries	576
002	Port Orford STP	0
	TMDL	576
	Loading Capacity	576

SECTION B

Minimum Monitoring and Reporting Requirements
(unless otherwise approved in writing by the Department)

1. Ambient Monitoring. The Department and the Coos Curry Council of Governments (CCCOG) shall operate a receiving water monitoring program in conjunction with the Garrison Lake Clean Lakes study. The monitoring information will be used to evaluate the effectiveness of the TMDL and to guide development of any additional control strategies. The ambient monitoring program shall consist of the following:

Stream	Agency	Parameter	Minimum Frequency *	Type of Sample
Garrison Lake	DEQ/CCCOG	Basic/1 & Solids/2	Monthly	Grab
(deepest point	"	Nutrients/3	Monthly	Grab
of upper lake)	"	Chloro. a	Monthly	Grab
Garrison Lake	DEQ/CCCOG	Basic/1 & Solids/2	Monthly	Grab
(center of	"	Nutrients/3	Monthly	Grab
lower lake)	"	Chloro. a	Monthly	Grab
Mill Creek	DEQ/CCCOG	Basic/1 & Solids/2	Monthly	Grab
	"	Nutrients/3	Monthly	Grab
	"	Chloro. a	Monthly	Grab

Notes:

* May 1 - November 15, unless otherwise noted.

1. Basic: Water temperature, dissolved oxygen, conductivity, pH
2. Solids: Total solids, total suspended solids
3. Nutrients: NH_3-N, NO_2+NO_3-N, Total Kjeldahl Nitrogen, Total Phosphorus Ortho Phosphorus

2. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless other test procedures have been approved by the Department.

3. Reporting Procedures. Monitoring results shall be reported on approved forms. The reporting period is the calendar month. Reports must be submitted to the Department by the 15th day of the following month.

SECTION C

Compliance Conditions and Schedules

1. The City of Port Orford is required to relocate the existing waste discharge out of Garrison Lake and to make facilities improvements to comply with Environmental Quality Commission policies. After December 1, 1990, the City of Port Orford will no longer be allowed to discharge STP effluent to Garrison Lake.

2. The Department will, upon completion of the Garrison Lake Phase I Clean Lakes grant, develop the final strategy for achieving the phosphorus load and incorporate the strategy into a revision of the South Coast Water Quality Management Plan.

SECTION D

Special Conditions

1. A final report of the Phase I Diagnostic / Feasibility Clean Lakes Study will be prepared by the CCCOG which recommends an implementation program for restoring Garrison Lake and identifies a Phase II monitoring program.

2. The Department will use the Phase I assessment report and other information from the monitoring program to continually evaluate the effectiveness of this TMDL. If the data indicates adjustments are needed, the TMDL will be reopened. Load allocations may be refined and additional load allocations specified, but in no case will the final TMDL exceed the loading capacity defined for the lake.

3. The Port Orford STP is not permitted to accept septic tank pumpings in the collection system or wastewater treatment plant.

4. Until the existing outfall into Garrison Lake is relocated, sewer connections into the sanitary sewer will be approved by the Department on a case-by-case basis only.

SECTION E

General Conditions

1. Definitions:

Loading Capacity (LC): The greatest amount of loading that a water can receive without violating water quality standards.

Load Allocation (LA): The portion of a receiving water's loading capacity that is attributed either to one of its existing or future non-point sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting loading. Wherever possible, natural and nonpoint source loads should be distinguished.

Wasteload Allocation (WLA): The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation.

Total Maximum Daily Load (TMDL): The sum of the individual WLAs for point sources and LAs for nonpoint sources and background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. If Best Management Practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations practicable, then wasteload allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs.