

TMDL:	Presque Isle Stream
Location:	1-mile segment at mouth in Presque Isle before confluence with the Aroostook River.
Effective Date:	After issuance of state or federal permits

Supporting Documentation: Presque Isle Stream Waste Load Allocation, MDEP, Dec 1995

Presque Isle Stream Waste Load Allocation Supplemental Report, MDEP, April 1997

Presque Isle Sewer District Review of Waste Load Allocation Report, Wright-Pierce Engineers, Dec 1997

Response to PISD Review and Final License Recommendations, DEP Memorandum Paul Mitnik to Nick Archer, March 11, 1998.

Presque Isle Sewer District TMDL comment letters of June 29, 2000 and July 6, 2000.

DEP response to PISD comment letters (July 25, 2000).

1. Description of waterbody, pollutants of concern, pollutant sources and priority ranking.

- For a description of Presque Isle Stream see page 1, WLA Report.
- Pollutants of concern are BOD, ammonia, and phosphorus. Excess BOD, ammonia and phosphorus are responsible for dissolved oxygen non-attainment and restrictions in ammonia are also needed to meet toxic numeric criteria for ammonia
- The Presque Isle Sewer District discharge is only diluted 3.3:1 at 7Q10 flow conditions and is the primary source of the listed pollutants.
- Presque Isle Stream has a high priority ranking and the project completion date goal of 2000 is specified on Maine's section 303d list.

2. Description of the Applicable Water Quality Standards and Numeric Water Quality Target.

Dissolved Oxygen

Presque Isle Stream is class B. The dissolved oxygen content of class B waters shall not be less than 7 parts per million or 75% of saturation, whichever is higher.

Phosphorus

There are no numeric criteria for phosphorus. Phosphorus is limited by its affect upon bottom attached algae, which lowers ambient dissolved oxygen through respiration.

Ammonia

Summer – PISD mass summer NH₃-N load of 9.6 lb/day criteria is linked to maintaining numeric dissolved oxygen criteria.

Nonsummer – Chronic toxic NH₃ criteria is 2.7 ppm (2.2 ppm NH₃-N) at 10 °C ; pH 7.

Designated Uses

Class B waters shall be of such quality that they are suitable for the designated uses of drinking water after treatment, fishing, recreation in and on the water, industrial process and cooling water supply, hydroelectric power generation except as prohibited under title 12, section 403, and navigation; and as habitat for fish and other aquatic life.

3. Loading Capacity – Linking Water Quality and Pollutant Sources

The loading capacity of Presque Isle Stream is summarized in the attached table under the “total” row. The scientific analysis and modeling in the cited documentation form the basis of the TMDL.

4. / 5. Load Allocations and Waste Load Allocations

Many treatment alternatives and combinations of the listed pollutant parameters were considered in the cited documentation. See attached table for final recommendations.

6. / 7. Margin of Safety and Seasonal Variation

See pages 1 to 2 of Supplemental WLA Report. In addition, daily maximum license concentration limits for ammonia and BOD₅ are recommended as an additional MOS.

8. Monitoring Plan for TMDL Developed Under the Phased Approach.

A complete monitoring plan is discussed on page 7 of the Supplemental WLA Report. It is possible that the sample station requirements could be reduced from nine ambient stations to the four locations on Presque Isle Stream. The submittal of a work plan by PISD for Department approval and the actual sampling will be requirements of the waste discharge license. DEP will assist in this effort as time permits.

9. Implementation Plan

The TMDL will be implemented through state and federal NPDES licensing.

10. Reasonable Assurances

The PISD is a very well operated and maintained plant and there is reasonable assurance that they can meet the specified stringent limits.

11. Public Participation

The documentation included in the submittal indicates that Wright-Pierce Engineers has already reviewed both of the DEP reports and DEP has responded to W-P comment's.

The TMDL was also be advertised in the local paper and telephone conversions between the DEP and PISD resulted in a tentative agreement of licensed limits.

12. Submittal Letter

A letter has previously been submitted. Another submittal with this new information is forthcoming, after the comment period for the TMDL has ended.