



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
1 Congress Street, Suite 1100
BOSTON, MA 02114-2023

August 30, 2005

Andrew Fisk
Maine Department of Environmental Protection
#17 State House Station
Augusta, Maine 04333-0017

SUBJECT: Notification of Approval of Fish Brook TMDL

Dear Mr. Fisk:

Thank you for Maine's submittal of the Fish Brook Total Maximum Daily Load (TMDL) for total phosphorus, total nitrogen, and sediment. This waterbody is included on Maine's 2004 303(d) list. The purpose of the TMDL is to address aquatic life impairment and depressed dissolved oxygen levels due to excessive nutrient and sediment loading from nonpoint source pollution.

The U.S. Environmental Protection Agency (EPA) hereby approves Maine's June 22, 2005 Fish Brook TMDL. EPA has determined that this TMDL meets the requirements of §303(d) of the Clean Water Act (CWA), and of EPA's implementing regulations (40 CFR Part 130). Attached is a copy of our approval documentation.

We are very pleased with the quality of your TMDL submittal. Your staff have done an excellent job of site investigation and use of a relatively new modeling tool (GWLF) for Maine NPS-impaired streams, resulting in a comprehensive and informative TMDL report. My staff and I look forward to continued cooperation with the ME DEP in exercising our shared responsibility of implementing the requirements under Section 303(d) of the CWA.

Sincerely,

Linda M. Murphy, Director
Office of Ecosystem Protection

cc (electronic):
David Courtemanch, ME DEP
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EPA NEW ENGLAND'S TMDL REVIEW

TMDL: **Fish Brook**, Somerset County, Maine
HUC: ME 0103000310; ME ID# 322R01 located in Fairfield, ME
2004 303(d) list: aquatic life use impairment; 2004 TMDL development.

STATUS: Final

IMPAIRMENT/POLLUTANT: Aquatic life use impairment measured by aquatic life criteria (macroinvertebrates), likely due to low dissolved oxygen, and nutrient enrichment; potential sources include agricultural nonpoint source and habitat degradation. TMDLs are calculated for **phosphorus**, **nitrogen**, and **sediment**.

BACKGROUND: The Maine Department of Environmental Protection (ME DEP) submitted to EPA New England the final *Fish Brook TMDL* with a transmittal letter dated June 22, 2005, and was received by EPA on June 30, 2005. All of EPA's April 25, 2005 comments (on the March 17, 2005 draft TMDL) were taken into account in the final submission.

The following review explains how the TMDL submission meets the statutory and regulatory requirements of TMDLs in accordance with § 303(d) of the Clean Water Act, and EPA's implementing regulations in 40 CFR Part 130.

REVIEWERS: Jennie Bridge (617-918-1685) e-mail: bridge.jennie@epa.gov

REVIEW ELEMENTS OF TMDLs

Section 303(d) of the Clean Water Act (CWA) and EPA's implementing regulations at 40 C.F.R. § 130 describe the statutory and regulatory requirements for approvable TMDLs. The following information is generally necessary for EPA to determine if a submitted TMDL fulfills the legal requirements for approval under Section 303(d) and EPA regulations, and should be included in the submittal package. Use of the verb "must" below denotes information that is required to be submitted because it relates to elements of the TMDL required by the CWA and by regulation.

1. Description of Waterbody, Pollutant of Concern, Pollutant Sources and Priority Ranking

*The TMDL analytical document must identify the waterbody as it appears on the State/Tribe's 303(d) list, the pollutant of concern and the priority ranking of the waterbody. The TMDL submittal must include a description of the point and nonpoint sources of the pollutant of concern, including the magnitude and location of the sources. Where it is possible to separate natural background from nonpoint sources, a description of the natural background must be provided, including the magnitude and location of the source(s). Such information is necessary for EPA's review of the load and wasteload allocations which are required by regulation. The TMDL submittal should also contain a description of any important assumptions made in developing the TMDL, such as: (1) the assumed distribution of land use in the watershed; (2) population characteristics, wildlife resources, and other relevant information affecting the characterization of the pollutant of concern and its allocation to sources; (3) present and future growth trends, if taken into consideration in preparing the TMDL; and, (4) explanation and analytical basis for expressing the TMDL through surrogate measures, if applicable. Surrogate measures are parameters such as percent fines and turbidity for sediment impairments, or chlorophyll *a* and phosphorus loadings for excess algae.*

Fish Brook in Fairfield, ME is currently included on Maine's 2004 §303(d) list for non-attainment of Class B aquatic life standards (macroinvertebrates). The TMDL describes the waterbody, the causes of impairment (aquatic life criteria) to the 4.9 mile stretch of stream, and potential sources (agricultural nonpoint source (NPS) and habitat degradation), as identified in the 2004 303(d) list. Observed dissolved oxygen (DO) violations and habitat degradation are the likely cause of aquatic life violations. The document describes the primary pollutants of concern (**total phosphorus, total nitrogen, and sediment**) (page 12, TMDL report). Total phosphorus and total nitrogen are assumed to be appropriate surrogates for the DO impairment (Page 16, TMDL report); sediment is assumed to be an appropriate surrogate for habitat degradation and aquatic life impairment.

ME DEP also identifies the magnitude and location of nonpoint sources (in terms of land use distribution in the watershed). Though forested land cover dominates the watershed, agriculture operations dominate the land directly adjacent to the brook and are the greatest contributors of silt and nutrient enrichment. Five major animal production operations (cows, dairy, and pigs) are significant sources of polluted runoff and an aerial photo of the watershed identifies the location of nonpoint source problems (page 4-6 page 6 TMDL report). Coincidental to a decline in its brook trout fishery in the early 1980's, algae blooms and evidence of siltation in the brook's larger pools were documented in the 1984 ME DEP diagnostic study of Fish Brook. "DEP found that total phosphorus levels in the brook are sufficient to cause algae blooms and there is evidence of nitrogen enrichment." Nutrient loadings from nonpoint sources (eroded soils, fertilizer, organic materials associated with anthropogenic activities) are the primary contributor to dissolved oxygen impairment measured by DEP during 2002. Nutrient enrichment and algae growth are also indicated by a 2 ppm or greater swing in DO, with the greatest effects accumulating at the downstream site. ME DEP explains that it was not possible to separate natural background from the total NPS load, and there were no upstream reaches found that consistently attain Class B standards (the stream periodically dries up at one road crossing, leaving stagnant pools that exceed water quality standards). (Pages 4-13 TMDL report)

ME DEP provides an explanation and analytical basis for assessing the TMDL for aquatic life impairment through the use of surrogate pollutants, a watershed model (GWLF) to simulate nonpoint source pollutant loading, and reference stream approach to develop numeric endpoints. (See also section 2 below which documents ME's water quality standards.)

Assessment: EPA New England concludes that the ME DEP has done an admirable job of describing the TMDL waterbody segment, pollutants of concern, and identifying and characterizing sources of impairment.

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

The TMDL submittal must include a description of the applicable State/Tribe water quality standard, including the designated use(s) of the waterbody, the applicable numeric or narrative water quality criterion, and the antidegradation policy. Such information is necessary for EPA's review of the load and wasteload allocations which are required by regulation. A numeric water quality target for the TMDL (a quantitative value used to measure whether or not the applicable water quality standard is attained) must be identified. If the TMDL is based on a target other than a numeric water quality criterion, then a numeric expression, usually site specific, must be developed from a narrative criterion and a description of the process used to derive the target must be included in the submittal.

The Fish Brook TMDL report describes the applicable water quality standards for aquatic life use (narrative and numeric), dissolved oxygen (numeric), designated uses (including habitat for fish and aquatic life), and antidegradation policy standards (see pages 10, and 13-14 TMDL report). Maine's water quality standards specify that discharges to Maine Class B waters "shall be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community." "Habitat shall be characterized as unimpaired." [page 13 TMDL report; 38 MRSA 465(3)(A) and (C)] Furthermore, ME DEP uses a linear discriminant model and macroinvertebrate samples to determine water quality attainment status of four classifications of freshwater. (The bio-metrics involve 20 years of data from river, stream and wetland sampling locations.)

Maine DEP used three pollutants of concern as surrogate measures of nonpoint source impacts resulting in violation of the State's biocriteria. Phosphorus, nitrogen, and sediments were the pollutants of concern that Maine chose as causal variables in relation to the stream's measured response variable of aquatic life impairment.

Since Maine does not have numeric standards for the surrogate pollutants of concern, numeric targets were set using two unimpaired watersheds. The reference stream approach used to develop these TMDLs involved two class B streams which supported healthy benthic communities and were documented to attain Class B standards *or better* for aquatic life (page 14, and 25-30 TMDL report). The two unimpaired streams had watersheds selected for their similarities in land use (forested and agricultural) and soil characteristics shared with the impaired Fish Brook watershed. The dominant land use in all three watersheds was forested; the primary distinction between Fish Brook

watershed and the two reference watersheds was the percentage of grassland / field (31% in Fish Brook; 13 and 14% in Allen Stream and Footman Brook watersheds).

Assessment: EPA New England concludes that ME DEP has properly presented its water quality standards and has made a reasonable interpretation of the narrative water quality criteria in the standards when setting the numeric water quality targets by using unimpaired or reference watersheds. EPA has reviewed the modeling report in appendix 1 and believes that ME DEP's selection of reference watersheds is based on reasonable and appropriate technical criteria.

3. Loading Capacity - Linking Water Quality and Pollutant Sources

As described in EPA guidance, a TMDL identifies the loading capacity of a waterbody for a particular pollutant. EPA regulations define loading capacity as the greatest amount of loading that a water can receive without violating water quality standards (40 C.F.R. § 130.2(f)). The loadings are required to be expressed as either mass-per-time, toxicity or other appropriate measure (40 C.F.R. § 130.2(i)). The TMDL submittal must identify the waterbody's loading capacity for the applicable pollutant and describe the rationale for the method used to establish the cause-and-effect relationship between the numeric target and the identified pollutant sources. In most instances, this method will be a water quality model. Supporting documentation for the TMDL analysis must also be contained in the submittal, including the basis for assumptions, strengths and weaknesses in the analytical process, results from water quality modeling, etc. Such information is necessary for EPA's review of the load and wasteload allocations which are required by regulation.

In many circumstances, a critical condition must be described and related to physical conditions in the waterbody as part of the analysis of loading capacity (40 C.F.R. § 130.7(c)(1)). The critical condition can be thought of as the "worst case" scenario of environmental conditions in the waterbody in which the loading expressed in the TMDL for the pollutant of concern will continue to meet water quality standards. Critical conditions are the combination of environmental factors (e.g., flow, temperature, etc.) that results in attaining and maintaining the water quality criterion and has an acceptably low frequency of occurrence. Critical conditions are important because they describe the factors that combine to cause a violation of water quality standards and will help in identifying the actions that may have to be undertaken to meet water quality standards.

The loading capacities for Fish Brook are set at numeric target levels using the two reference streams. The following targets for each pollutant represents an average of the unit area loads for the two reference streams because the loading results were so similar for both watersheds: **total phosphorus** (0.31 lb/acre/year), **total nitrogen** (2.9 lb/acre/year) and **sediment** (0.057 ton/acre/year). The loading capacities are expressed as annual unit area loads rather than daily loads in order to "normalize the spatial and temporal variation associated with instream nonpoint source pollutant concentrations." (page 14 TMDL report) (See Table 6, page 17 TMDL report).

The loading capacities for Fish Brook are set to protect water quality and support uses during critical conditions, which are defined as environmental conditions that induce a stress response in aquatic life. These stressful conditions may occur throughout the year, at various flows, and depend on the biological requirements of the life stage of resident aquatic organisms. Complexities of critical conditions in flowing water impaired by NPS runoff is a major consideration in expressing the TMDL in terms of annual loads.

The Generalized Watershed Loading Function (GWLf) model is used to estimate pollutant loadings of phosphorus, nitrogen, and sediment to Fish Brook and each of the two unimpaired reference streams. For each pollutant of concern, the difference between the impaired and reference watershed average is the reduction needed to achieve water quality criteria for all nonpoint source pollutants of concern (pages 14-15, 30-39 TMDL report).

The GWLF model is an established midrange modeling tool that uses land use runoff coefficients, the universal soil loss equations, and rainfall inputs to compute flow and pollutant loads. The model was run for all three watersheds for a 12 year period to capture a wide range of hydrologic conditions to account for variations in nutrient and sediment loading over time (page 15 TMDL report). Although the time-variable GWLF results were not calibrated to monitoring data (insufficient data), the results were consistent with the water quality monitoring data available. (page 36 TMDL report). ME DEP explains the assumptions, strength and weaknesses of the analytical process involving the GWLF model and reference stream approach to evaluating loading capacities (pages 15-16, 30-39 TMDL report). These analytical methods are widely recognized as appropriate for NPS-impaired stream TMDL assessment.

Assessment: EPA New England concludes that the loading capacities have been appropriately set at levels necessary to attain and maintain applicable water quality standards. The TMDLs are based on a reasonable and widely accepted approach for establishing the relationship between pollutant loading and water quality in nonpoint source-impaired streams. EPA New England concurs with expressing the TMDLs as annual loads based on the reasons provided by ME DEP (critical conditions occurring at various flows and pollutant loads throughout the year).

4. Load Allocations (LAs)

EPA regulations require that a TMDL include LAs, which identify the portion of the loading capacity allocated to existing and future nonpoint sources and to natural background (40 C.F.R. § 130.2(g)). Load allocations may range from reasonably accurate estimates to gross allotments (40 C.F.R. § 130.2(g)). Where it is possible to separate natural background from nonpoint sources, load allocations should be described separately for background and for nonpoint sources.

If the TMDL concludes that there are no nonpoint sources and/or natural background, or the TMDL recommends a zero load allocation, the LA must be expressed as zero. If the TMDL recommends a zero LA after considering all pollutant sources, there must be a discussion of the reasoning behind this decision, since a zero LA implies an allocation only to point sources will result in attainment of the applicable water quality standard, and all nonpoint and background sources will be removed.

ME DEP allocates all of each of the loading capacities for Fish Brook as the “load allocation”, a single categorical (gross) allotment, to existing and future nonpoint sources and to natural background (page 18, Table 7 page 19 TMDL report): **phosphorus** (0.31 lb/acre/year), **nitrogen** (2.9 lb/acre/year) and **sediment** (0.057 ton/acre/year). Calculation of necessary reductions are also provided (38% TP, 28% TN, 50% sediment) (Table 6, page 17 TMDL report).

Assessment: EPA New England concludes that the load allocations for total phosphorus, total nitrogen, and sediment are adequately specified in the TMDL at levels necessary to attain and maintain water quality standards. The degrees of load reductions necessary to achieve the in-stream phosphorus, nitrogen and sediment levels are based on estimates of current loadings.

5. Wasteload Allocations (WLAs)

EPA regulations require that a TMDL include WLAs, which identify the portion of the loading capacity allocated to existing and future point sources (40 C.F.R. § 130.2(h)). If no point sources are present or if the TMDL recommends a zero WLA for point sources, the WLA must be expressed as zero. If the TMDL recommends a zero WLA after considering all pollutant sources, there must be a discussion of the reasoning behind this decision, since a zero WLA implies an allocation only to nonpoint sources and background will result in attainment of the applicable water quality standard, and all point sources will be removed.

In preparing the wasteload allocations, it is not necessary that each individual point source be assigned a portion of the allocation of pollutant loading capacity. When the source is a minor discharger of the pollutant of concern or if the source is contained within an aggregated general permit, an aggregated WLA can be assigned to the group of facilities. But it is necessary to allocate the loading capacity among individual point sources as necessary to meet the water quality standard.

The TMDL submittal should also discuss whether a point source is given a less stringent wasteload allocation based on an assumption that nonpoint source load reductions will occur. In such cases, the State/Tribe will need to demonstrate reasonable assurance that the nonpoint source reductions will occur within a reasonable time.

ME DEP sets the waste load allocations for total phosphorus, total nitrogen, and sediment at 0 (zero) for all the pollutants of concern in the runoff”, and explains that “No portion of the Fish Brook watershed is regulated under Maine’s National Pollution discharge Elimination System (NPDES)” (page 18, TMDL report).

Assessment: EPA New England concurs that the WLA component of the TMDLs is appropriately set equal to zero based on ME DEP’s determination that there are no existing point sources discharges, including regulated stormwater, subject to NPDES permit requirements in the watershed.

6. Margin of Safety

The statute and regulations require that a TMDL include a margin of safety to account for any lack of knowledge concerning the relationship between load and wasteload allocations and water quality (CWA § 303(d)(1)(C), 40 C.F.R. § 130.7(c)(1)). EPA guidance explains that the MOS may be implicit, i.e., incorporated into the TMDL through conservative assumptions in the analysis, or explicit, i.e., expressed in the TMDL as loadings set aside for the MOS. If the MOS is implicit, the conservative assumptions in the analysis that account for the MOS must be described. If the MOS is explicit, the loading set aside for the MOS must be identified.

The Fish Brook TMDL includes an implicit margin of safety (MOS) based on a conservative selection of numeric water quality targets which were based on reference streams which actually attained Class A aquatic life criteria (better than Class B) during two years sampling events.

Assessment: EPA New England concludes that adequate MOS is provided. EPA believes a significant implicit MOS is provided in the modeling used to establish the numeric water quality targets, and the adequacy of this MOS is supported by in-stream data.

7. Seasonal Variation

The statute and regulations require that a TMDL be established with consideration of seasonal variations. The method chosen for including seasonal variations in the TMDL must be described (CWA § 303(d)(1)(C), 40 C.F.R. § 130.7(c)(1)).

“Seasonal variation is considered in the allowable annual loads of nutrients and sediment which protect macroinvertebrates and other aquatic life under the influence of seasonal fluctuations in environmental conditions such as flow, rainfall, and runoff.” (Page 19, TMDL report.)

Assessment: EPA New England concludes that seasonal variation has been adequately accounted for in the TMDL because the TMDL was developed to be protective year round. Seasonal fluctuations in flow, and varying contributions of nutrients and sediment from snow and rainfall runoff are taken into account. In addition, nutrient and sediment controls are expected to be in place through the year so that these controls will reduce pollution whenever sources are active.

8. Monitoring Plan for TMDLs Developed Under the Phased Approach

EPA’s 1991 document, Guidance for Water Quality-Based Decisions: The TMDL Process (EPA 440/4-91-001), recommends a monitoring plan when a TMDL is developed under the phased approach. The guidance recommends that a TMDL developed under the phased approach also should provide assurances that nonpoint source controls will achieve expected load reductions. The phased approach is appropriate when a TMDL involves both point and nonpoint sources and the point source is given a less stringent wasteload allocation based on an assumption that nonpoint source load reductions will occur. EPA’s guidance provides that a TMDL developed under the phased approach should include a monitoring plan that describes the additional data to be collected to determine if the load reductions required by the TMDL lead to attainment of water quality standards.

ME DEP explains that more detailed assessments will be needed to develop site-specific best management practices (BMPs). ME DEP recommends stream monitoring be conducted as part of the pre- and post-application assessments, and to gauge effectiveness of any BMPs or engineered design solutions. “As restoration plans proceed, ME DEP will check on progress towards attainment of Maine’s Class B water quality standards with both aqueous samples and biological monitoring evaluations.” (Page 20, TMDL report.) Future biological monitoring will be conducted according to the Department’s rotating basin sampling schedule.

Assessment: EPA New England concludes that the anticipated monitoring in cooperation with and by ME DEP is sufficient to evaluate the adequacy of the TMDL.

9. Implementation Plans

On August 8, 1997, Bob Perciasepe (EPA Assistant Administrator for the Office of Water) issued a memorandum, "New Policies for Establishing and Implementing Total Maximum Daily Loads (TMDLs)," that directs Regions to work in partnership with States/Tribes to achieve nonpoint source load allocations established for 303(d)-listed waters impaired solely or primarily by nonpoint sources. To this end, the memorandum asks that Regions assist States/Tribes in developing implementation plans that include reasonable assurances that the nonpoint source load allocations established in TMDLs for waters impaired solely or primarily by nonpoint sources will in fact be achieved. The memorandum also includes a discussion of renewed focus on the public participation process and recognition of other relevant watershed management processes used in the TMDL process. Although implementation plans are not approved by EPA, they help establish the basis for EPA's approval of TMDLs.

The Fish Brook TMDL load reductions are intended to "provide a guide for restoration plans and engineered solutions that will lower the content of nutrient and sediment in the runoff reaching the stream." (Page 20-21, TMDL report.) The DEP explains the importance of reducing sediment and nutrient inputs as an important step towards improving dissolved oxygen regimes in Fish Brook and calls for restoration of a sustainable and functional aquatic community requiring a step beyond implementation of standard agricultural BMPs (such as removing cows from the stream). Reversing long term degradation on a watershed basis will require planning and effort that include local stewardship, instream restoration, and attention to small chronic problems.

Specific recommendations include: installation of agricultural BMPs, identification of other nonpoint sources, a geomorphological assessment to identify instream restoration opportunities, evaluation of the feasibility of removing impoundments (not related to human safety) which increase stream temperatures and generates algae, and creation of an active watershed organization.

Assessment: Addressed, though not required.

10. Reasonable Assurances

EPA guidance calls for reasonable assurances when TMDLs are developed for waters impaired by both point and nonpoint sources. In a water impaired by both point and nonpoint sources, where a point source is given a less stringent wasteload allocation based on an assumption that nonpoint source load reductions will occur, reasonable assurance that the nonpoint source reductions will happen must be explained in order for the TMDL to be approvable. This information is necessary for EPA to determine that the load and wasteload allocations will achieve water quality standards.

In a water impaired solely by nonpoint sources, reasonable assurances that load reductions will be achieved are not required in order for a TMDL to be approvable. However, for such nonpoint source-only waters, States/Tribes are strongly encouraged to provide reasonable assurances regarding achievement of load allocations in the implementation plans described in section 9, above. As described in the August 8, 1997 Perciasepe memorandum, such reasonable assurances should be included in State/Tribe

implementation plans and “may be non-regulatory, regulatory, or incentive-based, consistent with applicable laws and programs.”

ME DEP addresses reasonable assurances that NPS reductions will occur by providing information on current work in the watershed which points to relatively recent commitments to improving water quality in Fish Brook since 2000 (page 20, TMDL report). The report documents active agricultural restoration projects and watershed surveys to identify sediment and erosion, with funding from CWA +319 and agricultural EQIP grant monies for BMP implementation. Agencies providing funding and technical assistance include the ME DEP, Somerset Country Soil and Water Conservation District, Kennebec Country SWCD, and Natural Resource Conservation Service (NRCS).

Assessment: Addressed, though not required, since this TMDL does not establish less stringent WLAs in reliance on greater load reductions from nonpoint sources.

11. Public Participation

EPA policy is that there must be full and meaningful public participation in the TMDL development process. Each State/Tribe must, therefore, provide for public participation consistent with its own continuing planning process and public participation requirements (40 C.F.R. § 130.7(c)(1)(ii)). In guidance, EPA has explained that final TMDLs submitted to EPA for review and approval must describe the State/Tribe’s public participation process, including a summary of significant comments and the State/Tribe’s responses to those comments. When EPA establishes a TMDL, EPA regulations require EPA to publish a notice seeking public comment (40 C.F.R. § 130.7(d)(2)).

Inadequate public participation could be a basis for disapproving a TMDL; however, where EPA determines that a State/Tribe has not provided adequate public participation, EPA may defer its approval action until adequate public participation has been provided for, either by the State/Tribe or by EPA.

The public participation process for Fish Brook TMDLs is described on pages 22-23 of the TMDL report. Copies of a preliminary draft TMDL were provided to watershed stakeholders (including Town officials, Soil & Water Conservation Districts, planning and environmental organizations). Electronic copies of the public review draft report were made available March 17, 2005, on ME DEP’s Internet web site. Paper copies were also made available, and notices of availability were placed in three local newspapers on March 19 and 26. The public comment deadline was April 19, 2005. No comments outside of ME DEP and EPA were received.

Assessment: EPA New England concludes that ME DEP has done a sufficient job of involving the public during the development of the TMDL, has provided adequate opportunities for the public to comment on the TMDL, and has fully addressed comments received from EPA.

Data for entry in EPA's National TMDL Tracking System

TMDL Name	Fish Brook
Number of TMDLs*	3
Lead State/Towns*	Maine (ME) / Fairfield
TMDL Status	Final
Pollutant ID	515 (total phosphorus) 511 (total nitrogen) 457 sediment
TMDL End Point	0.31 lb/acre/year TP 2.90 lb/acre/year TN 0.057 ton/acre/year Sediment
TMDL Type	Nonpoint Source
List ID (from system)	
Impairment ID (from system)	94 Aquatic Life
Cycle (list date)	2002 (until 2004 list is in the system)
Establishment Date (approval)	August 30, 2005
EPA Developed	No

* Data needed for EPA Region 1 "Approved TMDLs" web page

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