

knowledge about the universe of potentially regulated facilities.

One EPA source says that the "original schedule was extremely ambitious," adding that effluent guidelines "normally get three to four years; we got two years" to produce rules for AFOs. The source also explains that the staff assigned to this guideline had "limited agriculture experience" when they began work on the guideline.

EPA will report to the court in October about the progress of its talks with USDA, and how the agreement will affect the agency's schedule for developing the effluent guidelines required by the Clean Water Act.

STATES, DISCHARGERS QUESTION LEGALITY OF EPA IMPAIRED WATERS PLANS

Dischargers and some states are charging that EPA has exceeded its Clean Water Act (CWA) authority to impose stringent new pollution controls to regulate nonpoint sources under the agency's recently proposed rules to clean up impaired waters.

Stakeholders are raising these concerns over EPA's proposed total maximum daily load (TMDL) rules, which were published in the Aug. 23 *Federal Register*. *These proposed rules are available on our online document service, IWP Extra. See page 2 for details.* TMDLs set pollution caps on all sources that contribute to the impairment of a water body. States are required by CWA Section 303(d) to identify impaired waters and develop TMDLs to clean them up. The rules are the central part of EPA's effort to overhaul the TMDL program, which has been hammered by more than 30 lawsuits from environmental groups across the country. These groups claim, in many cases, that states have failed to meet 303(d) requirements and EPA has not met its statutory obligation to step in when states do not fulfill the TMDL mandates of the law.

One of the proposed rules sets out broad new requirements which states must meet in their management of the TMDL process. The other proposal sets out requirements for how states must implement TMDLs to ensure that pollution reductions are achieved. Among the most important of these requirements is a provision that would prohibit states from issuing National Pollutant Discharge Elimination System (NPDES) permits for new or significantly expanded discharges unless the permit applicant provides an offset that would remove one and a half times as much pollution as the discharge would contribute to an impaired water body.

Some dischargers believe EPA may be exceeding its CWA authority by requiring NPDES permit applicants to provide these offsets. An industry source says the CWA does not include any provisions that allow offsets, which some EPA sources have described as an approach akin to the Clean Air Act's new source review program for citing new pollution sources in areas where emissions standards are not being attained. Furthermore, this source says EPA's proposed ratio for the offset — 1.5:1 — is arbitrary. An EPA source says the agency had to propose an offset of some type to allow growth while improving water quality.

Several state sources agree with this interpretation of the law. "The law only allows us to require each discharger to meet standards [by each discharger] and EPA's offset goes beyond meeting standards," one state water quality regulator says.

A municipal official says the proposal would place the responsibility of cleaning up the nation's water squarely on large municipal and industrial point sources without holding nonpoint sources — a major contributor to water quality problems — accountable under TMDLs. "This approach would place the burden of TMDLs squarely on the back of large point sources," a municipal representative says.

A state source that participated in an Aug. 16 conference call with EPA about the proposal says the CWA does not allow the agency to regulate nonpoint sources under the NPDES program the same way point sources are regulated. Consequently, states, many of which run the federal water quality program, are ill-equipped to address nonpoint source pollution. Although the EPA proposals cite an Environmental Law Institute study that concludes that many states have enacted their own laws to address nonpoint sources, the state water quality regulator claims few state laws allow mandatory controls. "The bottom line in all of this is that we can't get where EPA wants to go without land use controls and nobody has the authority to that," this source says.

State water quality regulators continue to be concerned that the cost of developing TMDLs will be exorbitant. According to one source, EPA's response is "We've seen TMDLs cost \$500 million and \$500." The EPA source says the agency plans to get more cost information, but points out that states are supposed to have a "base program" of monitoring and other activities to support TMDLs.

Although many state sources have criticized the proposal, at least three states — Oregon, Maryland, and Wisconsin — are supporting the agency's efforts. The states told EPA Assistant Administrator for Water Chuck Fox in separate letters issued just before EPA released the proposed TMDL rules that they generally support the plans, but may have some specific concerns.

Stakeholders will have until Oct. 22 to comment on the proposed rules. An EPA source says a deadline extension is unlikely.



WESTERN

September 3, 1999
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Water Policy Subcommittee 9/22/99

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ENVIRONMENTAL
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THE WEEKLY NEWSLETTER OF THE WESTERN STATES WATER COUNCIL

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Chairman - Jeff Fassett; Executive Director - Craig Bell; Editor - Tony Willardson; Subscriptions - Julie Stam

ORGANIZATIONS/WATER QUALITY

ASIWPCA Annual Meeting

No issue was more important than the draft Total Maximum Daily Load (TMDL) rules at the recent annual meeting of the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA), which was held August 29-31, in Kennebunkport, Maine. Geoff Grubbs and Don Brady, with EPA's Wetlands, Oceans and Watersheds Office, addressed the purposes for new regulations and guidance. After substantial discussion, ASIWPCA declared its continuing support for the Clean Water Act (CWA) goals, but added that the requirements and expectations placed on the states should be consistent over time with legislative mandates and with the level of available resources. With this prelude, an ASIWPCA position statement urges EPA to extend the comment period on the proposed TMDL regulations for 180 days, due to their complexity and far reaching nature. Earlier, Mr. Grubbs had stated that the comment period would not likely be extended. Also, ASIWPCA asked that after promulgation of the new rules, the next Section 303(d) list identifying impaired waterbodies requiring TMDL plans not be due for at least two years.

ASIWPCA also took issue with the proposed rules' requirement that states establish and submit to EPA schedules for establishing TMDLs with no longer than a fifteen year time frame for all waterbody and pollutant combinations. There are no statutory deadlines, and "there are many vagaries states will likely encounter in trying to develop TMDLs in the absence of specific federal statutory mandates that require non-point source abatement." Therefore, the position statement goes on to recommend that there be provisions in the proposed rules allowing time extensions where states have made substantial progress toward developing TMDLs and they can provide reasonable assurance that further progress is likely in the foreseeable future.

The ASIWPCA position statement concludes that the states are challenged on two levels in developing TMDLs for waterbodies impacted largely from non-point sources. First, "There is the lack of a clear federal statutory requirement to control non-point sources contributing to the impairment of a waterbody. Second, it is often impossible with the resources available and within the time frames envisioned to quantify the pollutant loading from discrete areas generating non-point source runoff." ASIWPCA therefore urges EPA to embrace the concept of state approved watershed restoration plans that would be set forth in a phased manner with measurable milestones toward the goal of meeting water quality standards.

According to the position statement, the proposed regulations exceed federal statutory authority by requiring the submission of TMDL implementation plans for EPA's approval. While agreeing that TMDLs should be accompanied by an implementation plan supported by reasonable assurances that it will be achieved, since plans are not required by statute, ASIWPCA goes on to recommend that this requirement be dropped from the proposed regulations. Finally, the position statement notes that several areas will be considered for future comment by the Association.

ASIWPCA also adopted a position on "functional equivalency" urging that states, upon their initiative and at their option, be allowed and encouraged to utilize alternative approaches to achieving the environmental objectives of the Clean Water Act and EPA regulations. ASIWPCA also urged EPA to delay release of its guidance to states on application of antidegradation methods to protect high quality waters from polluted runoff. Noting the recent release of the controversial TMDL regulations, ASIWPCA concluded that it was not a strategic time "to add another significant dimension to what is anticipated to be controversial rules for non-point sources of pollution."

The Association also adopted a position setting forth basic principles regarding ground water protection and another urging that, when reauthorized, the Safe Drinking Water Act should eliminate the sunset provision in Title II, Section 302, which allows the transfer of funds between the Clean Water State Revolving Fund (SRF) and the Drinking Water SRF.

Near the conclusion of the meetings, David Holm, Director of the Colorado Water Quality Control Division and a WSWC member, was elected as ASIWPCA President for the upcoming year. The conference concluded with a meeting of the new Board of Directors and an informal state-federal roundtable.

WATER QUALITY/WATER RESOURCES **TMDLs/Water Quality-Quantity Interrelationships**

The Western Governors' Association (WGA) and Western States Water Council will sponsor the third in a series of forums on Total Maximum Daily Loads (TMDLs) on September 22-23, at the Yarrow Hotel in Park City, Utah. The focus on Wednesday will be EPA's recently released proposed TMDL rule (WSW #1319). Officials from EPA headquarters in Washington D.C. will review the rule with participants during the morning session and will be available for questions. Besides discussing the implications of the proposed rules, the forum is intended to help participants prepare, focus and submit their comments by October 22, 1999.

Wednesday afternoon, sessions will involve several state, environmental, industrial and local government representatives in a discussion of the effect of the proposed rules on state listing requirements and TMDL development and implementation. At the end of the day, a room has also been reserved for federal agencies to answer questions regarding the Unified Federal Policy for Watershed Management on Federal Lands.

On Thursday, the focus of the forum's second day will be on the integration of water quality and quantity considerations, particularly within the context of state watershed strategies (including TMDL programs), noting any institutional frameworks which may have helped or hindered implementation of the state's strategy. Case studies will be used to examine the interrelationship between development and implementation of water quality protection measures, changes in water use, and accommodating changes under state water rights laws. Three panels will examine the Synderville Basin, surrounding Park City, the Klamath River Basin in Oregon, and the Upper Clark Fork Basin in Montana. A facilitated roundtable discussion will follow the panels, and remarks will be recorded and used in the meeting summary. Registration information is available from WGA at (303) 623-9378, or from the Council offices

WESTERN GOVERNORS/WATER RESOURCES **Mexico/United States Border/Drought**

The International Boundary Waters Commission (IBWC), Mexico's Comisión Internacional de Límites y Aguas (CILA), U.S. Bureau of Reclamation and WGA are sponsoring a meeting on drought effects, planning and response along the U.S./Mexican border in El Paso, Texas on October 12-13, at the Camino Real Hotel, 101 S. El Paso Street; (915) 534-3000. Invitations are being sent to border state governors and state agriculture, emergency management, environmental, game and fish, and water agency directors, the U.S. Natural Resources Conservation Service, Bureau of Land Management, and Environmental Protection Agency (EPA), and other federal, state and local interests in both countries.

The goal of the meeting is to share information and problemsolving approaches and improve communication among various diverse parties along the border. The specific objectives include: (1) identifying practices used during drought to conserve water, address human health and environmental issues, and comply with various laws and treaties; (2) examining current border-related water problems and policies, and barriers to reducing the impacts of drought; and (3) considering possible future cooperative actions. Some questions to be addressed are: Do officials have and are they sharing data and information needed to improve decisionmaking related to water management/drought? What communications systems currently exist? Are they working? Can they be improved? Are there statutes, policies and practices that limit governments on both sides of the border from successfully managing water during a drought? Broader drought/water management issues may also be raised.

A draft agenda begins at 8:30 a.m. with remarks by: IBWC Commissioner John Bernal; CILA Commissioner Arturo Herrera; John Baker, Texas Natural Resources Conservation Commissioner and a WSWC member and WGA representative; and U.S. Bureau of Reclamation Commissioner Eluid Martinez. After previewing key border water issues given present and future drought conditions and reviewing past and proposed initiatives, regional panels of officials will address specific topics in the Rio Grande and Colorado River Basins. Each panel will cover current drought conditions, drought-related planning and management practices, and successful efforts or obstacles to action. After lunch there will be an overview of long-term weather forecasting, modeling and trend analysis. Later, two facilitated break-out sessions, again focused by basin, will encourage dialog among participants and develop a list of issues. On Wednesday, the break-out groups will report their findings on issues in a plenary session, before meeting to identify, develop and prioritize potential actions. The meetings will conclude with a summary session and adjourn shortly after noon. For information, contact the WGA offices at (303) 623-9378.

The WESTERN STATES WATER COUNCIL is an organization of representatives appointed by the Governors of member states - Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Texas, Washington, and Wyoming - and associate member state Alaska.



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Van Jamison, Division Administrator
Planning, Prevention and Assistance Division
Montana Department of Environmental Quality
1520 East Sixth Avenue
P.O. Box 200901
Helena, Montana 59620-0901

Re: TMDL Approvals
Elk Creek

Dear Mr. Jamison:

We have completed our review of the total maximum daily loads (TMDLs) as submitted by your office for the waterbodies listed on the attachment to this letter. In accordance with the Clean Water Act (33 U.S.C. 1251 et. seq.), we approve all aspects of the TMDLs as developed for water quality limited waterbodies as described in Section 303(d)(1). We acknowledge that this particular TMDL for Elk Creek is based on primarily on a voluntary and incentive-based approach to implementation.

Based on our review, we feel the separate elements of the TMDLs listed in the attached table adequately address the pollutants of concern as given in the table, taking into consideration seasonal variation and a margin of safety.

Thank you for your submittal. If you have any questions concerning this approval, feel free to contact Bruce Zander of my staff at 303/312-6846.

Sincerely,

Max H. Dodson
Assistant Regional Administrator
Office of Ecosystems Protection and
Remediation

Enclosures

cc: John Wardell, MOO



APPROVED TMDLS

Waterbody Name*	TMDL Parameter/ Pollutant	Water Quality Goal/Endpoint	TMDL	Section 303(d)1 or Section 303(d)3 TMDL	Supporting Documentation
Elk Creek* (HUC 17010213 MT76N0036)	sediment	restoration of native trout	50% reduction in annual sediment load at the mouth of Elk Creek	§303(d)(1)	Green Mountain Watershed Project Implementation Plan (February 1997) Elk Creek Watershed Council letter and maps to R. Lincoln (MDEQ) from M. Miller (ECWC) (July 3, 1998) "Elk Creek Near Heron: WC Level 2.5 Stream Survey; Reach Health Assessment Management and Rehabilitation Recommendations" (June 12, 1997)

* An asterisk indicates the waterbody has been included on the State's Section 303(d) list of waterbodies in need of TMDLs.

■ **TMDL Checklist** ■
EPA Region VIII

State/Tribe: Montana Waterbody Name: Elk Creek Point Source-control TMDL: Nonpoint Source-control TMDL: X (check one or both) Date Received: May 11, 1998 and July 17, 1998 Date Review completed: September 4, 1998		
Review Criteria (All criteria must be met for approval.)	Approved (check if yes)	Comments
■ TMDLs result in maintaining and attaining water quality standards	X	Control practices were developed to meet the use classification of Cold Water Fishery - Trout for Elk Creek. The target for restoration includes habitat improvements and application of sediment control practices to restore the designated use of the waterbody.
■ TMDLs have a quantified target or endpoint	X	There are no numeric criteria directly in available for sediment. Rather, the indicator used for the TMDL endpoint is a straight measure of the fishery population. Metrics include trend data for species composition, age class, and numbers.
■ TMDLs include a quantified pollutant reduction target, but this target can be expressed in any appropriate manner	X	The TMDL for sediment (the pollutant of concern) is a reduction in annual sediment loading by 50% at the mouth of Elk Creek.
■ TMDLs must consider all significant sources of the stressor of concern	X	Significant sources include sediment from erosive stream banks and unstable stream channels. Control practices address specific in-channel and bank/riparian conditions that result in accelerated erosion and excessive sediment delivery.
■ TMDLs are supported by an appropriate level of technical analysis	X	Analysis is made using Rosgen-type approach to stream assessment. This is an appropriate level of technical analysis for these pollutants and for the discharge type.
■ TMDLs must contain a margin of safety and consider seasonality	X	An appropriate margin of safety is included by thorough identification of sources and detailed segment-by-segment analysis of stream and bank conditions. Seasonality was adequately considered by 1) evaluating a biological baseline during appropriate seasons and 2) evaluating the cumulative sediment loading over all seasons.
■ TMDLs apportion loads or responsibility for taking actions	X	The water quality endpoint and TMDL can be achieved with controls only on nonpoint sources. Allocation of the TMDL % reduction is made back to specific locations in the stream (focusing on locations in the East Fork and mainstem of Elk Creek.) See maps included in documentation for a detailed accounting of where each control practice will be implemented.
■ TMDLs involve some level of public involvement or review	X	The Elk Creek Watershed Council has sponsored stakeholder meetings as well as educational efforts within the watershed. The number of cooperating organizations and roles are included in the TMDL documentation.

See EPA Region VIII's Elk Creek TMDL Review (November 13, 1998) for further details regarding the various elements of this TMDL.

Elk Creek TMDL Review

US EPA; Region VIII

November 13, 1998

Waterbody

Elk Creek (MT76N0036; USGS HUC 17010213)

This waterbody is included on Montana's 1998 Clean Water Act Section 303(d) list of waters in need of TMDLs

Pollutant of Concern

Sediment and other habitat factors

Date Submitted to EPA

May 11, 1998 with additional information on July 15, 1998

Date Review Completed

September 4, 1998

Supporting Information

Elk Creek Watershed Council (1998); correspondence from Mike Miller, Chair, Elk Creek Watershed Council to Roxann Lincoln, Montana DEQ (July 3, 1998)

Green Mountain Watershed Project Implementation Plan (1997);

Montana DEQ (1998a); correspondence from Van Jamison, Montana DEQ, to Max Dodson, US EPA (May 11, 1998)

Montana DEQ (1998b); correspondence from Roxann Lincoln, Montana DEQ, to Bruce Zander, US EPA (July 15, 1998)

Rosgen, Dave; Applied River Morphology, Wildlife Hydrology (1996)

Watershed Consulting; Report prepared for the Elk Creek Watershed Council: "Elk Creek Near Heron: WC Level 2.5 Stream Survey; Reach Health Assessment Management and Rehabilitation Recommendations" (June 12, 1997)

US EPA (1997); correspondence from Geoffrey H. Grubbs, Director, Assessment and Watershed Protection Division to FACA Workgroup on Section 303(d) listing Criteria (May 23, 1997)

Introduction

Elk Creek is a fourth order stream found in the northwest part of the State flowing into the Clark Fork River (Cabinet Gorge Reservoir segment) close to the Idaho border. Elk Creek watershed covers 55 square miles and contains 32 miles of streams. Approximately 72% of the watershed is managed by the National Forest Service, although most of the restoration efforts associated with this TMDL are within the riparian corridor not on Forest Service land.

Elk Creek is on Montana's Clean Water Act Section 303(d) list of waters in need of TMDLs. The focus of the Elk Creek TMDL is on the aquatic life impairments caused by sediment and other habitat factors. Native cutthroat trout are present but considered depleted, and native bull trout have not been found in the past decade. The stated goal of this TMDL is to restore the quality of the Creek to the degree that will improve its ability to support native aquatic life populations.

The State of Montana Department of Environmental Quality initially provided to EPA a copy of the Elk Creek TMDL elements in correspondence dated May 11, 1998 (see Montana DEQ, 1998a). Additional information was sent to EPA at its request pertaining to the Elk Creek TMDL to aid in its review (see Montana DEQ, 1998b). EPA evaluated further information

TMDL Review Elements

The following elements were used as review criteria in evaluating the sufficiency of the State submittal as a TMDL under the Clean Water Act. For a submittal to be approved as a TMDL, the following elements need to be addressed in some manner relevant to the water quality issue. For Elk Creek the cause of the water quality concern falls under the category of nonpoint source pollution in contrast with water quality concerns related to point source discharges of pollutants. It has been determined by EPA that the development of TMDLs to address nonpoint sources is appropriate (see US EPA, 1997).

- Stream Classification and Standards
- Water Quality Standards Target
- TMDL
- Significant Sources
- Technical Analysis
- Margin of Safety & Seasonality
- Allocation
- Public Participation

Elk Creek TMDL Review

■ Stream Classification and Standards

The overall purpose of TMDLs is to attain and maintain water quality standards established by a state or tribe. A particular TMDL will address issues related to waterbody use impairments or threats due to a specific pollutant or a number of pollutants.

The State of Montana has classified Elk Creek as a B-1 which means it is suitable for growth and propagation of salmonid fishes and associated aquatic life, waterfowl, and furbearers; agricultural and industrial water supply, drinking, culinary and food processing purposes, after conventional treatment; and bathing, swimming and recreation. Although there are no numeric standards established by the State to address the pollutant of concern (e.g. sediment) or other aspects of degradation in Elk Creek (e.g. lack of large woody debris for aquatic life habitat), this TMDL will be focused on restoring the health of Elk Creek to a condition that supports the aquatic life use as designated in State standards.

■ Water Quality Standards Target

A TMDL should have a target which is quantifiable, relates to achieving the water quality standard, and can be used as a measure of success for restoration and protection efforts.

The target defined in this TMDL is simply the restoration of Elk Creek as a cold water trout fishery with emphasis on the return of native salmonid species (e.g. western cutthroat trout and bull trout). The success of this TMDL will be gauged through fish population and census monitoring.

■ TMDL

A TMDL should be expressed in a manner that relates to the pollutant of concern and is linked to achieving the water quality standards target. In the case of Elk Creek, a reduction in sediment yield is linked to restoring the channel stability and habitat needed to restoring the native fisheries population.

A TMDL can be expressed in many different ways as appropriate to the pollution problem, the water quality standards target, the type of control practices needed to achieve the goals of the TMDL, the type of data and information available to support the TMDL, and other factors. The TMDL for Elk Creek is a reduction in annual sediment loading by 50% as observed at the mouth of Elk Creek as it enters into the Clark Fork River. This 50% reduction is based on best professional judgment as provides a provisional goal for the restoration activities in the watershed. The TMDL will be adjusted, as needed, to best

achieve the water quality standards target. The 50% reduction is expected to result after application of the control practices. Likewise, the 50% reduction is expected to result in restoration of aquatic life habitat and an appropriate sediment load. These linkages are based, in part, on the length, height, and field-estimated lateral erosion distance of the various reaches of Elk Creek.

There are no point sources of pollutants that are of concern in this TMDL, therefore the “wasteload allocation” component of the TMDL is considered a zero value. The TMDL is considered wholly included in the “load allocation” component of the TMDL.

■ Significant Sources

A TMDL should identify the sources and causes related to the pollutant of concern. All significant sources should be considered in establishing the TMDL and developing control practices.

The significant sources as well as causes of impairment to aquatic life in Elk Creek include the following:

- . alterations to flow due to land management practices
- . unstable stream banks due to poor riparian conditions
- . road building
- . poor aquatic life physical habitat (e.g low pool frequency, insufficient amounts of large woody debris)

The reaches of Elk Creek that had been degraded over time were further impacted and suffered accelerated erosion as a result of a significant flooding event in 1996. This TMDL addresses the concerns associated with Elk Creek that resulted in past land management practices as well as those brought upon by the 1996 flood.

■ Technical Analysis

A TMDL should be supported by an appropriate level of technical analysis. The appropriate level of analysis is often dependent upon the complexity of the water quality problem, the certainty needed prior to embarking on control measures, and the data and information available to support TMDL development.

Much of the Elk Creek TMDL is based on stream assessment work that was performed in November 1996 and May 1997 with emphasis on the mainstem and East Fork of Elk Creek (Watershed Consulting; 1997). A modified Rosgen approach was performed as a framework

for the field assessment (see Rosgen, 1996). As part of that assessment, the following parameters were measured or estimated for each of 16 stream reaches:

- . bankfull width and depth
- . entrenchment (channel width/valley width ratio)
- . channel gradient
- . bed substrate size class estimate (sand, gravel, cobble, boulder, bedrock)
- . Rosgen stream type
- . surrounding lithology
- . number of channels
- . confinement (terrain limits to lateral meandering)
- . type of depositional features (bars)
- . type of flow regime (perennial or intermittent)
- . type of bed features (cascade, step/pool, glide, pool/riffle)
- . channel vertical stability (aggradation, degradation)
- . type of stratigraphy of landforms adjacent to the stream
- . sediment type and supply
- . existing riparian cover and estimated potential riparian type as related to individual landforms
- . angle and height above bankfull of bank-forming landforms
- . large woody debris loading per reach (anything longer than 1/3 bankfull width and over 4 inches in diameter in 4 - 12 inch and 12 - 20 inch categories)
- . trends in long-term channel stability (departures of stream geometry and pattern parameters from stable natural range)

The reaches were delineated based on changes in Rosgen stream type or the presence of major degradation over a length 30 bankfull widths (approximately 600 feet). Figure 1 provides a schematic that shows the reaches associated with the field assessment. In addition to assessing current conditions and identifying trends on a reach-by-reach basis, prescriptions for rehabilitation and management were identified for each reach and the additional survey and monitoring needs for each reach were identified.

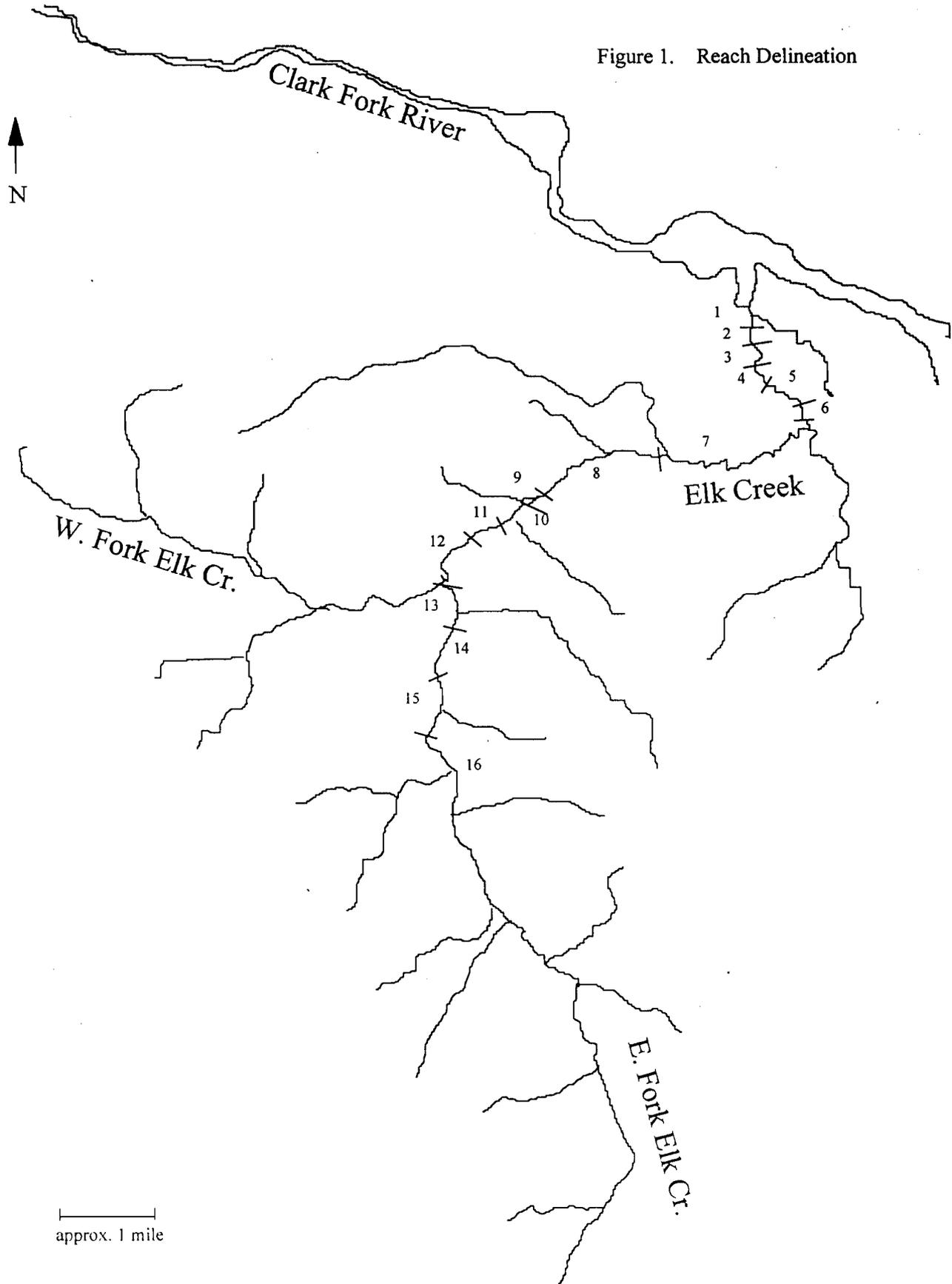
Out of the 16 reaches, nine were found to be relatively healthy whereas three of the 16 were found to be particular problem spots regarding channel condition and function and four reaches were heavily degraded in their function as fish habitat as well as sources of sediment. Further, it was concluded that the degradation of normal channel functions was mostly linked to the lack of woody riparian vegetation and subsequent bank destabilization.

“Off the shelf” mathematical models and methods are generally unavailable for TMDLs which address sediment and aquatic life habitat. Because of this, the ability to make quantitative linkages between the control practices, the TMDL, and the water quality goal cannot be accomplished. Rather, such as in the case of Elk Creek, the basis of a TMDL relies on the judgement of a team of scientists and landowners. Further, the TMDL is based on a phased

Elk Creek TMDL

Schematic Map

Figure 1. Reach Delineation



approach that is founded on a commitment to continued monitoring in the watershed as well as adaptive management over time.

Post-implementation monitoring is a component of this TMDL to detect the effectiveness of the applied control practices as well as improve the understanding of Elk Creek's flow regime, annual sediment budget, and aquatic life. What the Elk Creek analysis provides at this time is a basis to determine reasonable cause/effect relationships and what controls are needed (at least in an initial sense) to achieve the water quality goals established for Elk Creek. Further landscape analysis should also be done to evaluate what residual sediment problems might exist that are associated with upland practices such as road building and other developments.

■ Margin of Safety and Seasonality

The Clean Water Act requires that each TMDL take into consideration a margin of safety to address uncertainty within the TMDL as well as consider seasonality.

. Margin of safety is a part of the Elk Creek TMDL in that both the assessment and development of rehabilitation/management measures were developed in a high level of detail, on a reach-by-reach basis. Further, the Elk Creek TMDL effort includes future monitoring to assure that water quality and aquatic life goals are met, with adjustments are made in the management practices, if needed. Future monitoring includes additional flow monitoring, monitoring of permanent stream cross-sections, bedload characterization, suspended sediment budget, water temperature monitoring, fish population sampling, macroinvertebrate sampling, monitoring of revegetation success, and expanded stream assessments into West Fork Elk Creek. Individual survey and monitoring recommendations were made on a reach-by-reach basis for Elk Creek. See Figure 2 for the location of some of the fish and macroinvertebrate sampling sites.

. Seasonality was inherent in the Elk Creek TMDL since the stream assessment method evaluated the cumulative impacts of the various season on the waterbody. Stream assessments were performed in different seasons (i.e., winter and spring) and some of the rehabilitation practices are seasonal in nature (e.g. season livestock exclusion in riparian areas).

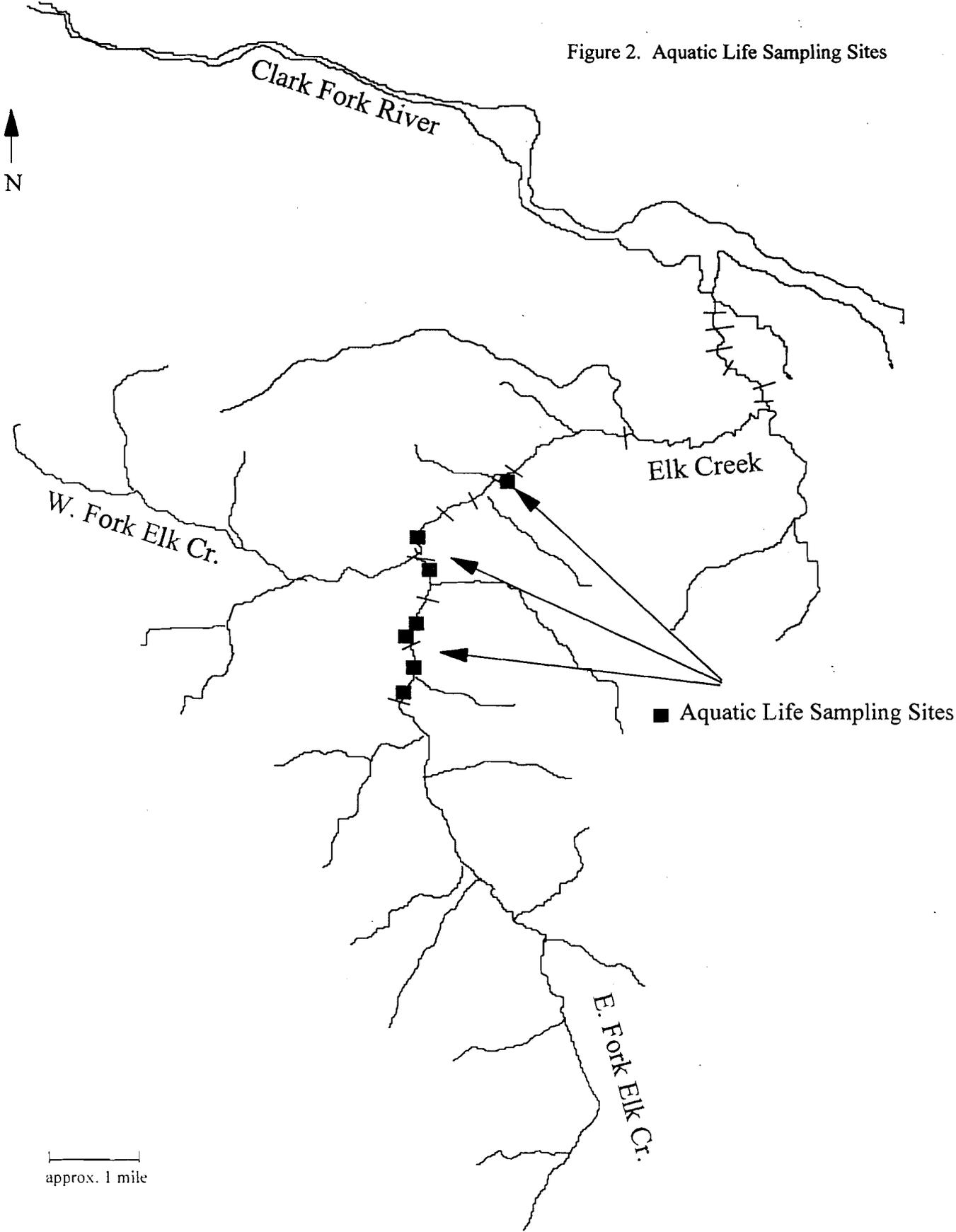
■ Allocation

Individual allocations of loads or management practices should be developed to address the sources and causes that need to be controlled to achieve the TMDL. This allocation can be done by pollutant source category, on a subwatershed level, or, as in the Elk Creek TMDL, on a stream reach-by-reach basis.

Elk Creek TMDL

Schematic Map

Figure 2. Aquatic Life Sampling Sites



Achieving the TMDL (i.e. 50% reduction in annual sediment loading) will be done by applying control practices on a reach-specific basis throughout Elk Creek as well as applying watershed-wide management recommendations. Allocation in this case involves prescribing rehabilitation and management practices to certain segments along Elk Creek in such a manner that, cumulatively, the TMDL is achieved. The TMDL may be modified in the future after control practices are put in place and the appropriate time for response has elapsed. See Figures 3 and 4 for the location of the major reach-specific restoration sites in Elk Creek.

The following allocation scheme is based on professional evaluation of stream conditions and the identification of causes of channel instability. Stream assessment and subsequent rehabilitation/management practices utilized a modified Rosgen approach as a basis.

The recommended rehabilitation and management practices associated with Elk Creek include:

Stream Reach-specific Practices

. These include a variety of practices tailored to specific reaches within the Elk Creek watershed. These practices include such practices as bank stabilization, riparian revegetation, stream channel reconstruction, and livestock exclusion. Figures 2 - 4 provide a schematic view of where these practices will be applied.

Watershed-wide Management Recommendations

. Riparian buffer restoration and maintenance: This recommendation targets the need to improve and maintain a riparian woody vegetation buffer for Elk Creek. A wide riparian woody buffer provides, among other things, stability for the stream banks, floodplain and terraces during large floods, and a source of large woody debris. Specific-specific recommendations are made regarding the types of plantings for the different riparian areas.

. Livestock management: This recommendation addresses the general practice of excluding livestock from riparian banks during spring and late summer/fall for protecting bank and riparian stability.

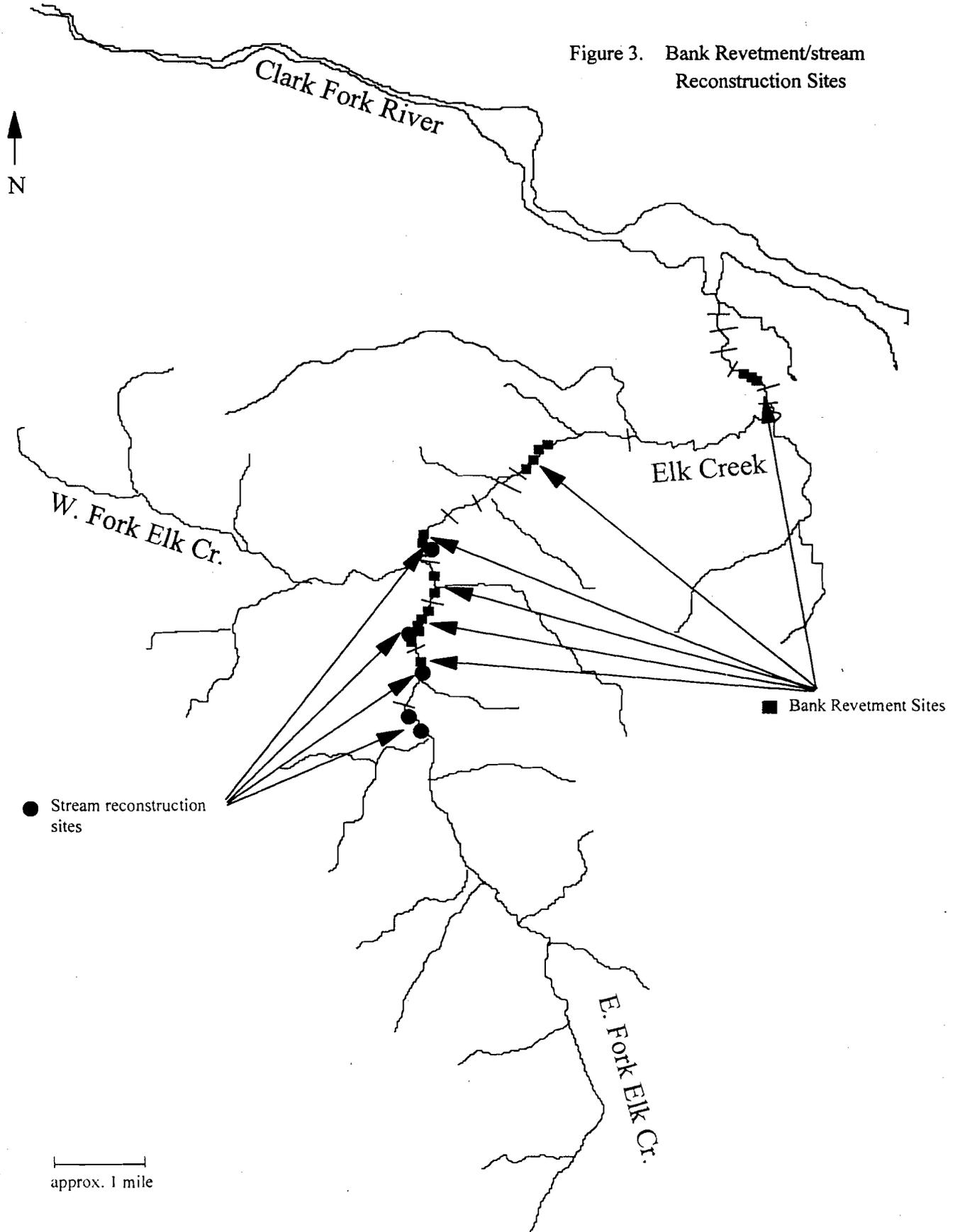
The practices and recommendations mentioned above are further detailed in the Green Mountain Watershed Project Implementation Plan developed as the Green Mountain Conservation District as the lead sponsor (see Green Mountain Watershed Project Implementation Plan (1997)). As given in this Plan, the following practices are listed:

- . installation of 2,000 linear feet of bank fencing
- . development of off-stream stock watering holes
- . planting of 4,000 linear feet of native riparian vegetation

Elk Creek TMDL

Schematic Map

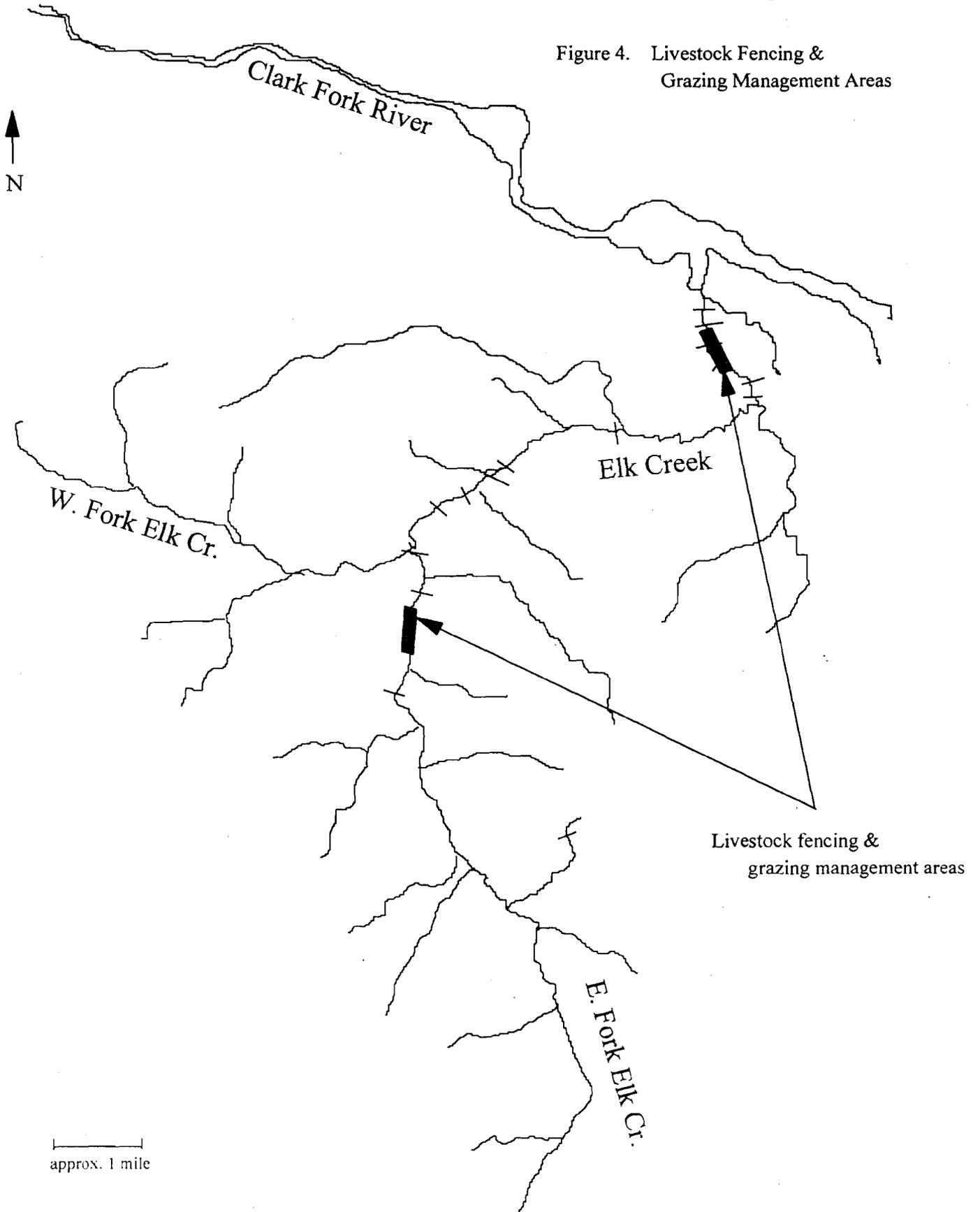
Figure 3. Bank Revetment/stream Reconstruction Sites



Elk Creek TMDL

Schematic Map

Figure 4. Livestock Fencing & Grazing Management Areas



- . stream bank stabilization and riparian improvements on 3,000 feet of severely eroded bank
- . reconstruction of 1,000 linear feet of creek

■ Public Involvement

The public should be informed of the TMDL efforts and be given an opportunity to be involved and to review the TMDL and its recommendations.

The local sponsor of the Elk Creek watershed restoration efforts is the Green Mountain Conservation District. Further, the Elk Creek Watershed Council provides continued leadership and citizen involvement in the planning and monitoring of restoration efforts. The Elk Creek Watershed Council conducted monthly meetings over a period of time starting in 1996. Also, information on watershed restoration efforts was disseminated through libraries and schools within the area. A number of other entities have also contributed to the Elk Creek effort as well as efforts throughout the basin including the following:

- . Sanders County
- . Natural Resource Conservation Service, USDA
- . Adopt-A-Stream Project
- . Montana Department of Fish, Wildlife and Parks
- . Montana Department of Environmental Quality
- . US Forest Service (USDA)
- . Washington Water Power
- . Montana State Library, Natural Resource Information Service
- . Local libraries in Thompson Falls High School, Noxon High School, Thompson Falls, Heron
- . Tri-State Implementation Council
- . State bull Trout Restoration Team/Clark Fork Relicensing Team
- . Montana Watercourse (Montana State University, Bozeman)

TMDL Implementation

Implementation of the Elk Creek TMDL is being performed through the local sponsorship of the Green Mountain Conservation District working closely with the Elk Creek Watershed Council. Various sources of funding have and will assist in implementation of the control practices. A prominent funding source for TMDL implementation is the Clean Water Act Section 319 nonpoint source funds as managed through the Montana Department of Environmental Quality. For more information on the timing and the costs associated with implementation efforts, one can review the project implementation plan associated with the 319 grant(s) for this watershed.

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Draft Summary:
Proposed EPA TMDL Rules in Comparison with Montana's Program

September 20, 1999

Introduction and Disclaimer

The U.S. Environmental Protection Agency (EPA) has published proposed rules related to the Total Maximum Daily Load (TMDL) program. *The deadline for comments on the rules is October 22, 1999.*

Environmental Quality Council (EQC) staff have prepared this draft summary of major elements of the proposed EPA rules in comparison with Montana's current approach. EPA's proposal is fairly comprehensive and complex. Therefore, this draft summary is not a thorough analysis and comparison with Montana's current approach. Furthermore, DEQ staff and interested parties are still reviewing the proposed rules; this document would benefit from more perspectives and expertise.

EPA has also proposed related revisions to the NPDES (National Pollutant Discharge Elimination System) and water quality standards regulations. EPA summaries of these proposed changes are attached.

Overall

The EPA's proposal is comprehensive and complex. Analyzing the proposal within a two-month comment period presents a challenge. The Association of State and Interstate Water Pollution Control Administrators has adopted a position statement urging EPA to extend the comment period on the proposed regulations for 180 days, due to their complexity and far reaching nature.

Montana is approximately two years into implementation of its new TMDL law. A significant effort has gone into developing the program and educating local watershed groups and others about TMDLs. If the EPA proposal were to be adopted as proposed, some aspects of Montana's program would have to change. Other states that have moved forward with TMDL programs are in a similar situation. If the EQC prefers Montana's current program, one option the EQC could consider would be to suggest that EPA allow states more flexibility in tailoring programs to meet their needs rather than requiring each state to follow the same approach as required by the EPA proposal. States that pass TMDL laws and establish TMDL programs could submit those programs to EPA for approval. Alternatively, the EQC could simply comment on specific elements in the EPA's proposal as they apply to all states.

Scope of the 303 (d) List

EPA Proposal: Requires listing of: water bodies impaired or threatened by point source only, a combination of point and nonpoint sources, and nonpoint sources only, including atmospheric deposition. Requires listing of water bodies impaired or threatened by an individual pollutant, multiple pollutants or pollution from any source, including atmospheric deposition. Requires listing of "Tier 3" (outstanding resources waters) if there is a decline in the quality of those waters.

- Other Options:** EPA considered and is seeking comment on the following options:
- Limit the list to impaired water bodies; don't include threatened water bodies.
 - Do not require listing of water bodies impaired or threatened by nonpoint sources.
 - Do not require listing of water bodies impaired or threatened by atmospheric deposition.
 - Require TMDLs for all water bodies impaired or threatened by atmospheric deposition.

[EPA concluded that each of these options was not consistent with the Clean Water Act. Any comments in favor of any of these options probably should state why they are consistent with the goals of the Clean Water Act.]

Montana's Approach: Montana's current approach is basically consistent with this proposal except that a decline in quality of outstanding resource waters is not defined as an impairment.

Required Components of the List

EPA Proposal: The list must be organized into four categories:

1. Waters impaired or threatened by pollutants or by unknown causes.
2. Waters impaired or threatened by pollution.
3. Waters for which TMDLs have been completed, but water quality standards have not yet been attained.
4. Waters expected to meet water quality standards by the next listing cycle as a result of the use of other enforceable pollution controls.

TMDLs would only be required to be established for waters in the first category. However, EPA explains that if the state believes a pollutant is the cause of the impairment or threat, but does not know the specific identity of the pollutant, the water body must be included in category 1 and scheduled for the establishment of a TMDL.

- Other Options:** EPA considered and is seeking comment on the following options that were not proposed:
- Identification of specific situations where the proper technical conditions for establishment of a TMDL are not met.
 - Include a category for water bodies for which there is some evidence of threat or impairment, but which would not be immediately scheduled for

establishment of TMDLs. Water bodies could have been placed in this category if the state committed to collect additional data and information or conduct additional monitoring.

- Continue to allow states not to list water bodies that fail to meet water quality standards, but for which other pollution control requirements or actions are planned or are being implemented that are expected to provide for standards attainment. [Under EPA's proposal, these would be listed, but a TMDL would not be required.]

Montana's Approach:

Consistent with EPA's current guidance, Montana has a single list of water bodies in need of TMDL development. When TMDL's are developed, the water body is removed from the list regardless of whether or not standards are attained. However, Montana law does require monitoring of water bodies with approved TMDLs and measures must be taken if the monitoring program demonstrates, after five years, that the TMDL is not achieving compliance with water quality standards. So Montana "tracks" these water bodies, but does not include them on the 303 (d) list.

Montana includes waters impaired or threatened by pollutants or pollution in its list. If EPA's proposal were to take effect, the impact on Montana's list of water bodies requiring TMDLs is unclear. EPA's proposal narrows the category of water bodies that require TMDLs. However, if the state thinks that a pollutant is the cause of impairment, but does not know what the pollutant is, the water body must be scheduled for TMDL development. This may lead to some debate regarding the cause of impairment.

Assigning Priorities to Listed Water Bodies

EPA Proposal: Much of EPA's proposal is the same as existing regulations/guidance. States must assign a high, medium or low priority to water bodies. States must explain how they considered the severity of the impairment or threat of impairment and the designated use to be made of the water body in assigning priority rankings. States may consider other factors if they identify each factor and explained how it was used in ranking.

New provisions require that water bodies be designated a high priority if either:

1. It is a public drinking water supply and the pollutant for which the water body is listed is contributing to a violation of an MCL (maximum contaminant level established under the Safe Drinking Water Act).

2. Species listed as threatened or endangered under the federal Endangered Species Act are present -- unless the state shows that the impairment does not affect the listed species.

Other Options: EPA considered and is seeking comment on the following issues as well as options that were considered and not proposed:

- Specifying standards that states have to consider in ranking.
- Leave ranking up to the states entirely. Don't require high, medium or low ranking.
- Don't require high priority designation for public water supplies where there is a violation of an MCL.
- Don't require high priority designation when a threatened or endangered species is present.
- Make human health and species concerns one factor, but not a determining factor, in deciding whether to rank a water body in the "high" category.
- Different priority ranking requirements for impairments or threats resulting from "extremely difficult to solve" problems (e.g., contaminated sediments that were deposited a long time ago).
- Types of impairments, if any, that should be considered difficult to solve and whether these types of impairments should be prioritized differently.
- Alternatives for ensuring that human health and aquatic species concerns be given appropriate weight in listing decisions.
- Whether to authorize states to consider factors in addition to the statutory factors in establishing priority rankings.

Montana's approach: The DEQ, in consultation with the Statewide TMDL advisory group, designates high, medium and low priority watersheds.

State law specifies factors that must be considered in setting priorities:

- (a) the beneficial uses established for a water body;*
- (b) the extent that natural factors over which humans have no control are contributing to any impairment;*
- (c) the impacts to human health and aquatic life;*
- (d) the degree of public interest and support;*
- (e) the character of the pollutant and the severity and magnitude of water quality standard noncompliance;*
- (f) whether the water body is an important high-quality resource in an early stage of degradation;*
- (g) the size of the water body not achieving standards;*
- (h) immediate programmatic needs such as waste load allocations*

for new permits or permit renewals and load allocations for new nonpoint sources;
(i) court orders and decisions relating to water quality;
(j) state policies and priorities, including the protection and restoration of native fish when appropriate;
(k) the availability of technology and resources to correct the problems;
(l) whether actions or voluntary programs that are likely to correct the impairment of a particular water body are currently in place;
and
(m) the recreational, economic, and aesthetic importance of a particular water body. (75-5-702 (7), MCA)

Public water supplies where there is a violation of an MCL and impaired water bodies with listed species are not automatically designated a high priority. Protection and restoration of native fish is one criterion under Montana law. The proposed EPA requirement to automatically assign a high priority to impaired waters with threatened or endangered species could significantly affect Montana's prioritization. For example, all impaired waters with bull trout would be high priorities unless the state shows that the impairment does not affect bull trout.

The factors designated in subsections (b)(k) and (l) (above) do not seem to be included in EPA's factors. If the EQC prefers to retain the factors used under Montana's current law, the EQC could consider proposing that these factors be added or that states be given more discretion in identifying factors.

Schedule for TMDL Development

EPA Proposal: Eliminates the current requirement that states identify those water bodies for which TMDLs will be established over the next two years in their priority ranking. States must schedule establishment of TMDLs as expeditiously as practicable, but no later than 15 years from the date of initial listing. TMDLs should be established in accordance with the priority rankings (high priority water bodies first). EPA will not disapprove a TMDL because it is not developed in priority order. However, EPA may decide to step in and establish a TMDL for high priority waters if the state is focusing on low and medium priority TMDLs. EPA recommends that TMDLs for high priority water bodies be established within five years. EPA will not approve or disapprove the state's schedule. The schedule may consider other factors, including the factors to be considered in prioritization decisions.

- Other options:** EPA considered and is seeking comments on the following issues or options:
- How to integrate the statutory requirement for priority rankings with the watershed approach. [According to the text of the federal register notice, states may schedule groups of TMDLs on a watershed basis for the later years of the schedule. This is not clear in the text of the proposed rule.]
 - Continue the requirement that states only identify water bodies for which TMDLs will be developed over the next two years.

Montana's approach: Under Montana law, DEQ is required to establish a schedule for completing all TMDLS for water bodies listed on May 5, 1997 by May 5, 2007 (10 years). DEQ is required to provide a reasonable timeframe for development of TMDLS for water bodies listed after May 5, 1997. The DEQ is required to provide guidance for TMDL development and review proposed TMDLs regardless of the ranking of the water body if the necessary funding and resources from sources outside the DEQ are available to develop the TMDL and to monitor the effectiveness of implementation efforts.

The DEQ tries to take advantage of opportunities to address several problems at one time by working with watershed groups to address an entire watershed. Different stream segments and different pollutants may be assigned different priorities but could be addressed at the same time so that a more efficient watershed approach may be utilized. The EPA requirement to address high priority water bodies first may conflict with this practical approach. As noted above, EPA recognizes this issue and has invited suggestions.

Submission of Lists, Priority Rankings, Listing Methodologies and Schedules to EPA

EPA Proposal: States would continue to be required to submit lists of impaired and threatened water bodies and the methodology for developing the lists to EPA. EPA proposes changing the deadline for submittal of the list from April to October. The methodology would have to be submitted 9 months earlier. Schedules for TMDL development would be required to be submitted with the list. EPA is proposing to change the next deadline from April 2000 to October 2000. EPA is inviting comments on several options presented in the next section.

- Options:** EPA is inviting comment on these issues:
- Whether to require submittal of lists and schedules every two, four, or five years.
 - Whether EPA should approve or disapprove schedules.
 - Whether schedules should be submitted with lists.

Montana's Approach: State law does not address compliance with EPA submittal requirements. DEQ is operating under current EPA regulations. Montana law does require DEQ to review and revise the list by October 1, 1999. If EPA's proposed new list requirements were to become effective before October 1, 2000, DEQ would have to submit Montana's list again before October 1, 2000.

Minimum Elements of a TMDL

EPA Proposal: TMDLS must contain the following 10 elements:

1. The name and geographic location of the impaired or threatened water body for which the TMDL is being established.
2. Identification of the pollutant and quantification of the pollutant load that may be present in the water body and still allow attainment and maintenance of water quality standards.
3. Identification of the amount or degree by which the pollutant load in the water body deviates from the load representing attainment or maintenance of water quality standards.
4. Identification of source categories, source subcategories or individual sources of the pollutant for which wasteload and load allocations are being established.
5. Wasteload allocations for pollutants from point sources.
6. Load allocations for pollutants from nonpoint sources.
7. A margin of safety.
8. Consideration of seasonal variation.
9. An allowance for future growth which accounts for reasonably foreseeable increases in pollutant loads.
10. An implementation plan.

Furthermore, there are eight required elements of an implementation plan:

1. A description of the control actions and/or management measures which will be implemented to achieve the wasteload allocations and load allocations, and a demonstration that the control actions and/or management measures are expected to achieve the required pollutant loads.
2. A timeline, including interim milestones, for implementing the control actions and/or management measures, including when source-specific activities will be undertaken for categories and subcategories of individual sources and a schedule for revising NPDES permits.
3. A discussion of the state's reasonable assurances that wasteload allocations

- and load allocations will be implemented.
4. A description of the legal authority under which the control actions will be carried out.
 5. An estimate of the time required to attain and maintain water quality standards and discussion of the basis for that estimate.
 6. A monitoring and/or modeling plan designed to determine the effectiveness of the control actions and/ or management measures and whether allocations are being met.
 7. A description of measurable, incremental milestones for the pollutant for which the TMDL is being established for determining whether the control actions and/or management measures are being implemented and whether water quality standards are being attained.
 8. A description of the state's process for revising TMDLs if the milestones are not being met and projected progress toward attaining water quality standards is not demonstrated.

Several excerpts from the Federal Register are included below to clarify the EPA's proposal regarding "reasonable assurance."

For nonpoint sources, reasonable assurance means that nonpoint source controls are specific to the pollutant of concern, implemented according to an expeditious schedule and supported by reliable delivery mechanisms and adequate funding. Examples of reasonable assurance include State, Territorial or authorized Tribal regulations or local ordinances, performance bonds, memoranda of understanding, contracts, or similar agreements.

Voluntary and incentive-based actions may also be acceptable measures of reasonable assurance. . . voluntary and incentive-based actions must be specific to the pollutant of concern, implemented according to an expeditious schedule, and be supported by adequate funding.

Voluntary participation by landowners in agricultural or forestry water quality protection or conservation programs . . . is acceptable during the establishments of the initial TMDL, subject to the conditions established in the regulation. However, if monitoring shows that voluntary measures are not resulting in the progress towards attainment and maintenance of water quality standards . . . the State . . . may need to establish a regulatory approach. (Federal Register, Vol. 64, No. 162, pp. 46034-46035)

EPA provides the following examples of voluntary and incentive-based

programs: state programs to audit the implementation of agricultural or forestry best management practices; and memorandums of understanding between states and organizations representing categories of sources; and state-approved programs for categories or subcategories of sources to ensure effectiveness of best management practices.

Options:

Issues that EPA is seeking comment on include:

- The reasonable assurance requirement that nonpoint source controls are supported by adequate funding.
- The minimum elements of TMDLs -- should any elements be deleted or added?
- The proposal to require implementation plans.
- Whether implementation plans should be required as an element of a TMDL (proposed), as a required submission accompanying the TMDL, or as an update to a water quality management plan submitted at the same time as the TMDL.

Montana's approach:

DEQ and EPA have approved Montana TMDLs that emphasize indicators such as fish populations and conditions of spawning riffles rather than calculations of loads. The use of indicators must be supported by technical analysis. Although EPA's proposed guidance discusses the use of surrogate indicators that are tied to the designated use (e.g., fish populations), the EPA proposal seems to place a greater emphasis on quantifying pollutant loads (see items 2 and 3 under "Minimum Elements of a TMDL." Montana TMDLs emphasize implementation and monitoring. If EPA requires quantification of the pollutant load, Montana may have to place more emphasis on modeling and technical analysis.

Although an implementation plan is not now required by EPA, Montana law does require some elements of an implementation plan. Section 75-5-703, MCA requires monitoring of water bodies with approved TMDLs. If the monitoring program demonstrates that the TMDL is not achieving compliance with water quality standards after five years, the DEQ is required to evaluate progress in restoring water quality and reasonable land, soil and water conservation practice implementation to determine if: the implementation of a new or improved phase of voluntary practice implementation is necessary; water quality is improving but a specified time is needed for compliance with water quality standards; or revisions to the TMDL are necessary to achieve applicable water quality standards.

In practice, some type of implementation plan is typically part of a TMDL. A key question is what will qualify as an implementation plan. It is not clear what measures will satisfy the reasonable assurance requirement. Although some of the examples of reasonable assurance provided may be applicable in some watersheds, DEQ generally does not have the authority to require the types of assurances described in the Federal Register notice for nonpoint sources.

With respect to the reasonable assurance requirements, Montana relies heavily on federal funding for implementation of nonpoint source controls.

Jurisdiction Issues

EPA Proposal: EPA may establish TMDLs if: the state (or an authorized Tribe) asks EPA to do so; if EPA determines that the state has not, or is not likely to establish TMDLs consistent with the schedule; or if EPA determines that it should establish TMDLs for interstate or boundary water bodies.

Allows Indian Tribes to apply to EPA for authority to establish lists of impaired waters and TMDLs under section 303 (d). States, Tribes and other federal entities contiguous to the reservation will be notified and given an opportunity to comment prior to EPA action on the tribe's application.

Other Options: EPA is requesting comments on these options:

- Require states, territories and authorized tribes to consult with each other before listing as impaired a water body which forms part of the boundary between them and before they begin developing a TMDL for the water body.
- Require states, territories and authorized tribes with jurisdiction over a listed water body to jointly develop any TMDL for that water body in lieu of EPA exercising its discretionary authority to develop a TMDL itself.
- For water bodies that share an international border or flow from another country: should reductions be allocated to sources within and outside the U.S.; or should the U.S. assume the status quo in terms of load from outside of the U.S. and allocate reductions only within the U.S.

Montana's Approach: The DEQ is cooperating with tribes on several TMDLs.

Public Participation

EPA Proposal: 30-day comment required on list of impaired or threatened water bodies, priority rankings, schedule, and TMDLs.. States must provide for public participation in development of listing methodology. States must consider comments from the EPA, U.S. Fish and Wildlife Service or National Marine Fisheries Service and document their consideration.

Montana's Approach: Montana law requires 60-day public comment period on list. There are no specific notice requirements in Montana law for the priority rankings, schedule or TMDLs. Public notice and comment period is standard practice for TMDLs in order to meet current EPA approval requirements. Law provides for public comment on methodology through documentation of STAG meetings.

Public Petition

EPA Proposal: Any person or organization may petition the EPA to carry out a state's duties under the Clean Water Act, section 303 (d). In its review of the petition, EPA will consider: the state's schedule for establishing TMDLs; progress the state has made in identifying waters needing TMDLs; progress the state has made in establishing TMDLs; and resources the state has committed for administering its TMDL program.

Transitional TMDLs

EPA proposal: EPA will approve any TMDL submitted to it for review within 12 months of the effective date of the final rule if the TMDL meets either the old or the new requirements.



Total Maximum Daily Load (TMDL) Program

United States
Environmental Protection
Agency

Office of Water
4101
www.epa.gov/water/

EPA 800-F-99-002
August 1999

Proposed Regulatory Revisions to the Total Maximum Daily Load Program and Associated Proposed Regulatory Revisions to the National Pollutant Discharge Elimination System and the Water Quality Standards Programs

The U.S. Environmental Protection Agency (EPA) is proposing revisions to the Total Maximum Daily Load (TMDL) regulations (40 CFR Part 130) for implementing state, territorial, authorized tribal, and EPA responsibilities under Section 303(d) of the Clean Water Act. This action also includes revisions to the National Pollutant Discharge Elimination System (NPDES) and Water Quality Standards regulations to facilitate implementation of TMDLs.

States and territories have identified over 20,000 individual river segments, lakes, and estuaries across America as polluted. These polluted waters include approximately 300,000 miles of river and shoreline and approximately 5 million acres of lakes -- polluted mostly by sedimentation, nutrients, and harmful microorganisms. With the overwhelming majority of the population living within 10 miles of these polluted waters, these proposed regulatory revisions will have a profound impact on the environment and health of communities across the country.

These proposed regulatory revisions address issues of fundamental importance to cleaning up our Nation's polluted waters. Listing impaired and threatened waters and establishing TMDLs are fundamental tools for identifying remaining sources of water pollution and achieving water quality goals. Clean-up plans developed under this regulatory proposal will help to restore the health of thousands of miles of river and shoreline and make millions of lake acres safe for fishing, swimming and other activities.

Overview

Under Section 303(d), states, territories, and authorized tribes (collectively referred to as "states") are required to develop lists of impaired waters. These are waters that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. States must establish priority rankings for waters on the lists and develop TMDLs for listed waters. A TMDL specifies the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and allocates pollutant loadings among point and nonpoint pollutant sources. EPA must approve or disapprove state lists and TMDLs. If a state submission is inadequate, EPA must establish the list or the TMDL.

In 1996, the Office of Water determined that there was a need for a comprehensive evaluation of EPA's and the states' implementation of their Section 303(d) responsibilities. EPA convened a committee under the Federal Advisory Committee Act (TMDL FACA committee) to undertake such an evaluation and make recommendations for improving such implementation, including recommended changes to the TMDL regulations and guidance. The TMDL FACA committee was comprised of 20 individuals with diverse backgrounds, including agriculture, forestry, environmental advocacy, industry, and State, local, and Tribal governments. On July 28, 1998, the committee submitted its final report to EPA containing more than 100 consensus recommendations, a subset of which would require regulatory changes. The TMDL FACA committee recommendations helped to guide the development of the proposed revisions to the TMDL, NPDES and water quality standards regulations.

Proposed Revisions to the TMDL Regulations

The purpose of the proposed revisions to the TMDL regulations is to provide states with clear, consistent, and balanced direction for listing waters and developing TMDLs, resulting in restoration of waterbodies not meeting water quality standards. The proposed regulations would accomplish this goal by clarifying and revising the existing regulations to:

- Ensure that state 303(d) listing methodologies are more specific, subject to public review, and submitted to EPA for review eight months prior to submission of the list. (EPA is seeking comment on how frequently states should submit methodologies and lists.)
- Establish a new format for the state 303(d) lists that will create a more comprehensive list of waterbodies impaired and threatened by pollution and pollutants. This new format would organize the lists into four categories:
 - waters impaired or threatened by pollutants or by unknown causes,
 - waters impaired or threatened by pollution,
 - waters for which TMDLs have been completed, but water quality standards have not yet been attained, and
 - waters expected to meet water quality standards by the next listing cycle as a result of the use of other enforceable pollution controls.

Under this new format, TMDLs would only be established for waters in the first category. In addition, impaired waters would remain listed until water quality standards are achieved;

- Include a new requirement that states establish and submit to EPA schedules for establishing TMDLs with no longer than a 15 year timeframe for all waterbody and pollutant combinations;
- Ensure that states establish TMDLs for high priority waterbodies before they do so for medium and low priority waterbodies, and also encourage states to schedule high priority waterbodies for TMDL establishment no later than five years from listing;
- Include a new requirement that states assign a high priority to waterbody and pollutant combinations which are designated as public drinking water supplies and which cause a violation of the maximum contaminant level, and/or for pollutants causing an impairment or threat for species listed as

endangered or threatened under section 4 of the Endangered Species Act;

- Clarify that a TMDL must contain the following 10 specific elements:
 - Name and location of the impaired or threatened waterbody;
 - Identification of the pollutant and the amount of the pollutant that the waterbody can receive and still meet water quality standards;
 - Identification of the amount by which the pollutant must be reduced for the waterbody to meet water quality standards;
 - Identification of the source or sources of the pollutant;
 - Determination of the amount of the pollutant that may come from point sources;
 - Determination of the amount of the pollutant that may come from nonpoint sources;
 - A margin of safety;
 - Consideration of seasonal variations;
 - Limited allowance for future growth and reasonably foreseeable increases in pollutant loads; and
 - An implementation plan.
- Include a new requirement that an approvable TMDL must have an implementation plan consisting of eight elements, including:
 - A list of actions needed to reduce pollutant loadings;
 - Timeline describing when these actions will occur;
 - Reasonable assurances that the wasteload allocations for point sources and the load allocations for nonpoint sources will be implemented;
 - Legal authorities to be used;
 - Estimate of the time it will take to meet water quality standards;
 - Monitoring or modeling plan to determine if reductions are being achieved;
 - Milestones for measuring progress; and
 - Plans for revising the TMDL if progress is not being made.
- Clarify that TMDLs may be expressed in terms appropriate to the desired condition of the waterbody or the characteristics of the pollutant load;
- Ensure that the public will be notified and have the opportunity to comment on lists, priority rankings, schedules, and TMDLs prior to submission to EPA; and
- Allow the public to petition EPA to establish TMDLs where a state has substantially failed to do so consistent with the state's schedule.

Proposed Revisions to the NPDES and Water Quality Standards Regulations

The purpose of the proposed revisions to the NPDES and water quality standards regulations is to achieve reasonable further progress toward attainment of water quality standards in impaired waterbodies after listing and pending TMDL establishment, and to provide reasonable assurance that TMDLs, once completed, will be adequately implemented. EPA may also, in the future, promulgate federal water quality standards for states, pursuant to section 303(c)(2)(B), to ensure consistent, nationwide application of the new requirements in the period between listing and TMDL establishment.

The proposed regulations would accomplish this goal by clarifying and revising the existing regulations to:

- Include a new requirement that large new or significantly expanding dischargers obtain an offset of one-and-a-half times their proposed

discharge before beginning to discharge, unless the Director (i.e. the EPA Regional Administrator or the State Director in a state that is authorized to administer the NPDES program) determines either: (1) that an offset other than 1.5:1, but more than 1:1, is sufficient to achieve reasonable further progress, or (2) that any offset would result in further degradation of water quality, in which case the Director need not require an offset. These proposed offset requirements would be in addition to current Clean Water Act provisions requiring discharge limits to protect water quality standards;

- Define a significant expansion of an existing discharger as a 20 percent or greater increase in pollutant loadings above current permitted pollutant loads;
- Provide EPA the authority to object to, and ultimately reissue, expired and administratively-continued permits for discharges to impaired waterbodies in NPDES-authorized states where reissuance is necessary to ensure reasonable further progress towards meeting water quality standards while a TMDL is being established or where it is necessary to ensure that a completed TMDL is adequately implemented; and
- Provide EPA the authority to designate certain operations such as Concentrated Animal Feeding Operations, Concentrated Aquatic Animal Production Facilities, and certain silviculture operations as point sources and require them to obtain NPDES permits after completion of a TMDL in cases where EPA is required to establish the TMDL.

Opportunities for Public Comment on the Proposal

The proposed regulatory revisions will be published in the Federal Register for a 60 day comment period. A copy of the proposal will also be available at: <http://www.epa.gov/owow/tmdl/> on the Internet.

Written comments on the proposed regulatory revisions to the TMDL program should be sent to:

*Comment Clerk for the TMDL Rule
Water Docket (W-98-31)
U.S. Environmental Protection Agency
401 M Street, S.W., Washington, D.C. 20460*

Written comments on the proposed regulatory revisions to the NPDES and water quality standards programs should be sent to:

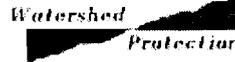
*Comment Clerk for the TMDL Rule
Water Docket (W-99-04)
U.S. Environmental Protection Agency
401 M Street, S.W., Washington, D.C. 20460*

Comments will also be accepted electronically at the following Internet address: <ow-docket@epa.gov>.

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Total Maximum Daily Load (TMDL) Program

Improving Water Quality in Impaired Waterbodies Pending the Establishment of a TMDL Listing Impaired Waterbodies and Establishing TMDLs

States and Territories identify impaired waterbodies, those not meeting water quality standards. Lists of these waterbodies are provided to the public and EPA every two years. States then establish TMDLs for waterbodies on the list. TMDLs specify the reductions needed to meet water quality standards and allocate those reductions among the sources in the watershed. TMDLs can take up to 15 years to establish.

The National Discharge Elimination System (NPDES) Program

The NPDES program protects public health and the environment through the issuance of permits to dischargers of pollutants from a point source into waters of the United States. These permits contain enforceable limitations and requirements that ensure that water quality standards will be met.

The Relationship Between Water Quality Standards, the TMDL Program and the NPDES Program

Water Quality Standards and TMDLs are in part, implemented through NPDES permits. While TMDLs are being established, NPDES permits may be issued to dischargers provided the discharge will not cause or contribute to a violation of water quality standards. After TMDLs are established, NPDES permits may be issued to new dischargers and reissued to existing dischargers provided the limitations and requirements within such permits are consistent with the TMDL.

How Can Water Quality Be Improved in Impaired Waterbodies As TMDLs are Being Established?

Proposed Revisions to the NPDES and WQS Regulations:

Offsets

EPA is proposing to require certain dischargers seeking to add new pollutant loads to an impaired waterbody to offset their proposed discharge.. These dischargers will need to offset any increase in a pollutant(s) for which the waterbody is impaired by a specified amount.

What is an Offset?

An offset is a reduction in pollutant loads of a particular pollutant(s). These reductions can be obtained from an existing point source(s) and/or an existing nonpoint source(s).

Who must obtain an offset?

Dischargers who will be required to obtain these offsets are large new dischargers and large existing dischargers undergoing a significant expansion.

When must these offsets be obtained and for how long must they be maintained?

Offsets must be obtained before the discharger begins discharging. Offsets must be maintained until TMDLs are established and implemented.

Reissuing Expired Permits in Impaired Waterbodies

States with approved NPDES programs issue permits to point sources within their jurisdiction. When these permits expire, the State typically issues the permittee a new permit. In some instances, these permits expire and the permittee operates under an expired permit. Some of these expired permits are inconsistent with water quality standards. Authorizing discharges under these permits frustrates the goals of the Clean Water Act by delaying the implementation of needed water quality-based effluent limitations. In these instances and when the State fails to act, EPA is proposing to allow the Regional Administrator to reissue these permits consistent with water quality standards.

[Back to TMDL Homepage](#)

[OWOW Front Page](#) | [Watershed Approach Front Page](#)

[[EPA Home](#) | [Search](#) | [Browse](#) | [What's New](#) | [Comments](#)]
<http://www.epa.gov/OWOW/tmdl/improving.html>
This page last updated August 12, 1999



Total Maximum Daily Load (TMDL) Program

Ensuring That TMDLs are Implemented Reasonable Assurance

When establishing a TMDL, States allocate reductions of a particular pollutant among the pollutant sources in the waterbody. These sources may include both point sources and nonpoint sources. In allocating reductions to nonpoint sources, States must provide reasonable assurance that those nonpoint sources will meet their allocated amount of reductions. There are a variety of ways in which a State can provide reasonable assurance such as, through the implementation of pollution control measures, developing and implementing nonpoint source control plans and if available, other State regulations and policies governing such facilities.

Satisfying Reasonable Assurance Through the Issuance of an NPDES Permit

States may not be able to provide reasonable assurance that certain nonpoint sources will meet their allocated amount of reductions. In these instances, States authorized to administer the NPDES program may designate these sources as point sources and require that they obtain an NPDES permit. Reasonable assurance is satisfied by designating these sources as point sources and issuing them an NPDES permit.

A State may choose not to designate these sources as point sources. By not designating these sources, EPA may find that the State failed to provide reasonable assurance. Because reasonable assurance is a required element of a TMDL, EPA may then disapprove that State's TMDL. If EPA disapproves a TMDL, EPA must establish the TMDL.

How Can We Ensure That TMDLs, Once Established, Will Be Implemented?

Proposed revisions to the NPDES regulations:

Designation Authority for Animal Feeding Operations and Aquatic Animal Production Facilities

Authority to designate Animal Feeding Operations (AFOs) and Aquatic Animal Production Facilities (AAPFs) currently lies with the NPDES permitting authority. The permitting authority may be the State (where that State is authorized to administer the NPDES program) or the EPA Regional Administrator (in States that do not have the authority to administer the NPDES program) as the context requires.

EPA is proposing to allow the Regional Administrator to designate these sources even when it is not the permitting authority. This authority will be limited to instances where it is necessary to provide reasonable assurance that these sources will meet their allocated amount of reductions when EPA

establishes a TMDL. The Agency believes that this authority is necessary because reasonable assurance is a required element of a TMDL.

Designation Authority for Discharges From Silviculture Operations

EPA is proposing to allow both States and the Regional Administrator to designate certain discharges from silviculture activities. EPA's authority to designate these sources will be limited to instances where it is necessary to provide reasonable assurance that these sources will meet their allocated amount of reductions when EPA establishes a TMDL. The Agency believes that this authority is necessary because reasonable assurance is a required element of a TMDL

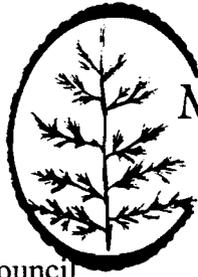
Reissuing Expired Permits in Impaired Waterbodies

States with approved NPDES programs issue permits to point sources within their jurisdiction. When these permits expire, the State typically issues the permittee a new permit. In some instances, these permits expire and the permittee operates under an expired permit. Some of these expired permits are inconsistent with applicable TMDLs. Authorizing discharges under these permits frustrates the goals of the Clean Water Act by delaying the implementation of TMDLs. In these instances and when the State fails to act, EPA is proposing to allow the Regional Administrator to reissue these permits consistent with the applicable TMDL.

[Back to TMDL Homepage](#)

[OWOW Front Page](#) | [Watershed Approach Front Page](#)

[[EPA Home](#) | [Search](#) | [Browse](#) | [What's New](#) | [Comments](#)]
<http://www.epa.gov/OWOW/tmdl/ensure.html>
This page last updated August 14, 1999



MONTANA
LOGGING
ASSOCIATION

Environmental Quality Council
P.O. Box 201704
Helena, MT 59620-1704

September 15, 1999

Exhibit 5
Water Policy Subcommittee 9/22/99

Dear EQC Members:

I am writing this letter to you on behalf of the membership of the Montana Logging Association. We are very concerned about two new proposed Federal Rules that will profoundly affect TMDL implementation in Montana and the rest of the Nation. We believe that these new rules, if implemented, would change the face of agricultural and forestry land use and would further cripple these beleaguered industries. Your leadership is well known with respect to this issue and includes the sponsorship and passage of HB 546 in 1997 and HB 392 in 1999. We will be sending a similar letter to the Montana Congressional Delegation, but feel that it is vitally important for the Montana Legislature to weigh-in regarding this Federal rulemaking and to use the EQC to help make it's voice heard on this important matter.

After careful review of the proposed rules, it seems clear to us that if implemented; these changes would completely negate the considerable progress made regarding TMDL's in Montana. While there are some helpful changes contained in the proposed rules, for the most part, this Federal rulemaking is a giant leap backwards for Montana's TMDL efforts. We are especially concerned regarding the proposed rule re-designating silvicultural activities as point sources requiring permitting under the NPDES storm water discharge system. This action would remove all incentive for the implementation of forestry BMP's as the improvement of any forest road drainage using BMP's would require engaging in a lengthy permitting process that would also trigger Section 7 ESA Consultation with the USFWS in Bull trout watersheds. Forest landowners would simply choose to leave their road system as is rather than enter into the murky world of NPDES permits Endangered Species Consultation and the inevitable delay and bureaucratic red tape.

Montana's Forestry BMP program has been acknowledged as a great success, receiving the EPA's Non-Point Pollution Prevention Award in 1991. We are continually improving application and effectiveness of Forestry BMP's through special training programs, technical practice modification and practice and application on the ground. Implementation monitoring is conducted biennially and affirms the effectiveness of these practices. There is absolutely no sensible motive for turning this program into an expensive, regulatory, permit-based system, unless the goal is to eliminate forest management in threatened and impaired watersheds.

There are other troubling new rules, including the new requirement for an implementation plan to be submitted with each TMDL, which will cause interminable

delay. It will be challenging enough, given the required time frames of the Clean Water Act that are already being litigated, to address watershed plans (TMDL's) for Threatened and Impaired waters, let alone attempt to draw-up implementation plans involving hundreds and thousands of independent landowners in any one TMDL. Another onerous rule will require load allocations for atmospheric deposition – even though this pollution may come from other countries and other continents! It is our considered opinion that these new rules, if adopted, would shoot the Montana TMDL program squarely in both feet. EPA is requiring that comments on these new rules are received or postmarked by October 22, 1999. This does not leave enough time for effective analysis and comment regarding these complicated proposals.

We are asking you to help Montana landowners, ranchers, loggers and log haulers, forest products companies and their workers and all related support industries who have already made the commitment to improve water quality as part of conducting their business. The EPA must be informed from the grass roots that these proposed rules concerning the addition of an implementation plan, the calculation of load allocations for atmospheric deposition, the re-designation of some non-point sources as point sources and other onerous elements, will only serve to bring Montana's progress on TMDL's to a screeching halt. At a minimum, we respectfully request that you request the comment period be extended to enable all affected parties to comment substantively on this complicated issue.

I will be attending the Libby EQC meeting next week and will be available for any specific questions you may have regarding the probable effect from our perspective of these new proposed rules.

Sincerely,

A handwritten signature in cursive script, appearing to read "Patrick Heffernan".

Patrick Heffernan, MLA Staff Forester

cc. MLA Board of Directors, Senator Lorents Grosfield, Senator Vicki Cocchiarella, Mark Simonich – MTDEQ, Cary Hegreberg – MWPA, Greg Schildwachter – IFA, Brian Sugden – Plum Creek.