Order Code RL30611

EPA's Total Maximum Daily Load (TMDL) Program: Highlights of the Final Revised Rule

July 18, 2000

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Summary

On July 11, the Administrator of the Environmental Protection Agency (EPA) signed a final rule making revisions to existing EPA regulations that implement a program in the Clean Water Act intended to improve the quality of waterways that have not yet attained applicable standards. The rule requires states to implement plans to clean up these polluted waters. From the August 1999 proposal of this rule through the Administrator's signature, EPA's actions have been controversial. Most recently in Congress, at the end of June, the House and Senate approved a provision in an appropriations bill (H.R. 4425) to prevent EPA from spending any funds in FY2000 or FY2001 to finalize or implement new TMDL rules. The President signed the bill on July 13, in spite of the TMDL provision, which the Administration opposes (P.L. 106-246). By signing the final rule before enactment of H.R. 4425, EPA intended to ensure that the regulation would move forward, despite Congress's action. In order to avoid the FY2001 restriction, the final rule delays the effective date of its regulatory changes until FY2002.

The rule at issue was proposed by EPA in August 1999 regarding the Total Maximum Daily Load (TMDL) program under Section 303(d) of the Clean Water Act (CWA) to revise existing regulations. Section 303(d) requires states to identify waters that have not yet attained water quality standards, develop a "budget" of pollutant reductions needed to achieve standards, and allocate reductions among sources. EPA is required to take these actions if a state fails to do so. According to EPA, a strengthened TMDL program is needed because significant water quality problems persist, more than 25 years after enactment of the Clean Water Act.

This report discusses the final rule and the key modifications of the August 1999 proposal. The final rule builds on the current TMDL regulatory program and adds details, specific requirements, and deadlines. It retains the basic elements of the 1999 proposal for more comprehensive identification of impaired waters, schedules and minimum elements for TMDLs, and new public participation requirements. At the same time, dropped from the final rule are several provisions that were most controversial in the proposal, including some potentially affecting agriculture and forestry, one that would have required pollutant discharge offsets in some circumstances, and one that would have required states to identify waters threatened but not yet impaired by pollution.

While the final resolution of a revised TMDL program may yet occur through political events and/or litigation challenging EPA's actions, several initial points can be made. For example, even while the effective date of the rule is delayed until October 2001, existing TMDL obligations on states remain in effect. These existing requirements could result in the imposition of new pollution control strategies, regardless of actions that could affect the July rule. Costs of the TMDL program, both existing and revised, will continue to be an important issue, especially for states which are directly affected by its requirements. Finally, while EPA attempted to provide specificity in the final rule to resolve questions about how the revised program will be implemented, questions about EPA's role are likely to persist.

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Introduction

On July 11, the Administrator of the Environmental Protection Agency (EPA) signed a final rule making revisions to existing EPA regulations that implement a program in the Clean Water Act intended to improve the quality of waterways that have not yet attained applicable standards. From the August 1999 proposal of this rule through the Administrator's signature, EPA's actions have stimulated controversy among some Members of Congress and the general public. Most recently in Congress, at the end of June, the House and Senate approved a FY2001 Military Construction and emergency supplemental appropriations bill (H.R. 4425, H.Rept. 106-710) that includes a provision to prevent EPA from spending any funds in FY2000 or FY2001 to finalize or implement new TMDL rules. The President signed the bill on July 13, in spite of the TMDL provision, which the Administration opposes (P.L. 106-246). By signing the final rule before enactment of H.R. 4425, EPA intended to ensure that the regulation would move forward, despite Congress's action. However, in order to avoid the FY2001 restriction, the final rule delays the effective date of its regulatory changes until FY2002.

The rule at issue was proposed by EPA in August 1999 regarding the Total Maximum Daily Load (TMDL) program under Section 303(d) of the Clean Water Act (CWA) to revise existing regulations that EPA issued in 1985 and amended in 1992. Section 303(d) requires states to identify surface waters for which wastewater discharge limits on industrial plants and municipal sewage treatment plants are not stringent enough to achieve state-established water quality standards, even after application of required pollution controls. For each of these waterbodies, states are required to set a total maximum daily load of pollutants at a level that ensures that applicable water quality standards can be attained and maintained and to allocate further required pollutant reductions among sources. EPA is required to take these actions if a state fails to do so. Congress enacted Section 303(d) in 1972 (P.L. 92-500), but it had languished for many years until lawsuits were brought in more than 30 states challenging the lack of implementation. EPA's August 1999 proposal was intended to strengthen and clarify the current regulatory program which remains in effect until the revised rules become effective.[1]

According to EPA, a strengthened TMDL program is needed because significant water quality problems persist in the nation's waters, more than 25 years after

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[1] For background information, see CRS Report 97-831, *Clean Water Act and Total Maximum Daily Loads (TMDLs) of Pollutants*. Also see CRS Report RL30422, *EPA's Total Maximum Daily Load (TMDL) Program: Highlights of Proposed Changes and Impacts on Agriculture.*

enactment of the Clean Water Act. The most recent assessments of impaired waters, done by states under the current TMDL program in 1998, identified over 20,000 waterbodies that did not meet water quality standards. State data also report that, in 1998, about 40% of surveyed U.S. streams, lakes, and estuaries that were assessed to determine national water quality conditions were not clean enough to support uses such as fishing and swimming. Runoff from agricultural lands and urban areas are the primary sources of pollutants causing these impairments. EPA and many others believe that implementation of the TMDL program is critical in efforts to address runoff from nonpoint sources such as farms, forests, and city streets. Historically, clean water programs have focused on controlling pollutant discharges from industrial and municipal point sources, while less attention has focused on managing sources of polluted runoff.

EPA's TMDL proposal has had few strong supporters, for varying reasons. States, Territories, and Indian Tribes authorized to administer CWA programs would be directly affected by the proposal and have criticized the burdens that new requirements would place on them. Industry and others potentially affected object to its impacts, as well. Farm groups and others associated with nonpoint discharges question EPA's authority to include nonpoint source pollution in the TMDL program. Environmentalists, who support the need for a stronger and more comprehensive TMDL program, have expressed mixed views. Some support the final rule, but others object to the lengthy time periods that the rule allows before water quality improvements are likely to occur. A number of groups and individuals urged EPA to withdraw the proposal and start over. Conversely, at least a few stakeholders (groups representing municipal wastewater and water treatment agencies) have supported TMDL program revisions to make clear that all sources of water quality impairments, including nonpoint sources, should contribute to solutions, so that the burdens of more stringent pollution controls do not fall inequitably on municipal and industrial sources alone.

Congressional interest in the proposal has been high, and opposition has been bipartisan: by the time the final rule was signed, 12 congressional hearings had been held, and six legislative proposals to modify or delay the proposal (in addition to the language included in H.R. 4425) had been introduced.[2] Since August 1999, EPA has responded to criticism of the proposal, and in the weeks leading up to finalizing the rule, the Agency attempted to signal flexibility on some of the most contentious points,[3] making changes even after the final rule was submitted to the Office of Management and Budget for review on June 19. Even if all interested groups and individuals were now satisfied with the substance of the final rule–which is

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[2] Since October 1999, hearings have been held by the full committee or subcommittees of the House Agriculture Committee, House Transportation and Infrastructure Committee, Senate Agriculture, Nutrition and Forestry Committee, and Senate Environment and Public Works Committee. Legislative proposals include H.R. 3609, H.R. 3625, H.R. 4502, S. 2041, S. 2139, and S. 2417. In addition, on June 21, the House passed EPA's FY2001 funding bill (H.R. 4635) and approved bill and report language barring EPA from developing or implementing final rules to revise the TMDL regulatory program in FY2001.

[3] For information, see CRS Report RL30573, *Changes Recently Announced by EPA to Its Total Maximum Daily Load (TMDL) Proposal.*

unlikely–EPA's action of promulgating the rule before the TMDL rider became law has generated another round of criticism.

This report discusses the final rule and the key modifications of the August 1999 proposal. The final rule builds on the current TMDL regulatory program and adds details, specific requirements, and deadlines. It retains the basic elements of the 1999 proposal for more comprehensive identification of impaired waters, schedules and minimum elements for TMDLs, and new public participation requirements. For some interested parties, what is most of interest is what was not included in the final rule. EPA dropped several provisions that were most controversial in the proposal, including some potentially affecting agriculture and forestry, one that would have required pollutant discharge offsets in some circumstances, and one that would have required states to identify waters threatened but not yet impaired by pollution.

Effect of the TMDL Rider in H.R. 4425

While the revised TMDL rule was undergoing final Administration review, Congress adopted a provision in H.R. 4425, the FY2001 Military Constructions/FY2000 Urgent Supplemental Appropriations Bill, stating that no funds may be used in FY2000 or FY2001 to "make a final determination on or implement any new rule relative to" the August 1999 TMDL proposal. Because the President intended to sign H.R. 4425 into law but opposed the TMDL provision, the Administration accelerated its review, allowing the EPA Administrator to sign it on July 11, before the appropriations bill was signed on July 13 (P.L. 106-246). The text of the final rule was published in the *Federal Register* on July 13.[4]

In the final rule, EPA acknowledged Congress' action in H.R. 4425 and delayed the effective date of the rule's program changes until 30 days after Oct. 1, 2001, or the expiration of the rider, whichever comes first. In the interim, current program requirements under existing regulations and court-sanctioned TMDL schedules remain in place. It is unclear what related activities EPA is allowed to do while the rider is in effect. For example, can Agency officials meet with interest groups to explain the final rule or work on policy guidance to accompany the regulation? The rider does not restrict EPA's ability to implement and enforce the existing TMDL program or to make clean water grants to states to implement the existing program.

Although the final rule details requirements that states are expected to implement over a long period of time (up to 15 years), only one specific element in the final rule is affected by the delayed effective date. That requirement concerns submission to EPA of the methodology that a state uses to identify impaired waters. The many other specific dates and time-related elements of the final rule are not altered by the delayed effective date.

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[4] U.S. Environmental Protection Agency. "Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulation; Final Rules." 65 *Federal Register* No. 135, July 13, 2000, pp. 43586-43670.

The Final Rule is Designated a Major Rule

The Preamble accompanying publication of the final rule includes a section discussing the Administration's determination that the final rule is a "major rule" for purposes of the Congressional Review Act.[5] That Act provides a mechanism by which Congress can review and disapprove federal agency actions. Under the Congressional Review Act, Congress has the opportunity to review an agency's rule and can disapprove the rule by passing a joint resolution, which the President could approve or disapprove, like any other bill presented for his signature. Joint resolutions of disapproval of the TMDL rule were introduced in the Senate (S.J.Res. 50) and in the House (H.J.Res. 104, H.J.Res. 105, and H.J.Res. 106).

Under the Congressional Review Act, Congress has 60 session or legislative days to pass a joint resolution of disapproval. It is apparent that the remaining session or legislative days before adjournment of the 106th Congress will be less than 60 days. In such a case, a joint resolution of disapproval could be re-filed in the 107th Congress, and under the Act, the new Congress would then have 45 days to conduct a review of the rule.

A "major rule" is one that is likely to have an annual effect on the economy of $100 million or more; increase costs or prices for consumers, industries, federal, state or local governments; or have a significant adverse effect on the economy. The TMDL rule was determined to be a "major rule" on the basis of its likely costs to state and local governments. EPA estimates that those costs will be about $22.88 million annually. The designation of a rule as major affects its effective date during Congress' review by delaying the effective date for 60 days following publication in the *Federal Register*. However, in the case of the TMDL rule, EPA's own action to delay it until October 2001 delays it beyond the 60-day period specified under the Congressional Review Act.

Under the procedures in that Act (which are not limited to major rules), if a joint disapproval resolution passed both Houses of Congress and was signed by the President, the rejected rule is deemed not to have had any effect at any time, and current TMDL regulations would remain in effect. The law prevents an agency from promulgating a revised rule in substantially the same form as a rule so disapproved by Congress and requires that Congress specifically authorize such a rule through subsequent legislation.

Also under the Act, if a disapproval resolution is rejected by either House, thereby halting Congress' review, the rule may go into effect immediately (i.e., before the 60-day period ends). Further, if a joint disapproval resolution was passed by both Houses but was vetoed by the President, the rule may go into effect on the earlier of either the date one House fails to override the veto or 30 days after Congress receives the President's veto message. However, neither of these would occur with the final

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[5] The Small Business Regulatory Enforcement Fairness Act (P.L. 104-121), Subtitle E. For background information, see CRS Report RL30116, *Congressional Review of Agency Rulemaking: A Brief Overview and Assessment After Three Years*.

revised TMDL rule, since EPA itself has delayed the effective date until October 2001.

Provisions in the Proposed Rule Not Included in the Final Revised Rule

The final rule dropped a number of elements from EPA's August 1999 proposal, including several that had been at the center of controversies about it.

Agriculture and Forestry. The final rule entirely drops provisions that could have affected some agricultural and forestry activities and could have required some of them to obtain CWA discharge permits if they are contributing to water quality impairments. Much of the criticism of the TMDL proposal had focused on possible impacts on these sources, most of which currently are exempt from the Act's permit and enforcement requirements that apply to discharges from industries and municipalities. These parts of the proposal, especially those potentially affecting forestry, generated vigorous criticism (and, according to EPA, more than one-half of the 34,000 public comments submitted on the TMDL proposal), and much of EPA's response since August 1999 was focused on explaining and clarifying provisions that were, in fact, a small part of the full TMDL proposal.

In 1999, EPA had proposed that some forestry operations, animal feeding operations (AFOs), and aquatic animal production facilities not currently subject to CWA permits could be required by states to do so. EPA justified the proposal on the basis that state water quality data indicate that pollutants from agriculture and forestry are causing water quality problems that prevent waters from meeting standards. The proposal detailed a narrow set of circumstances when this might occur – for example, only where there is an identifiable source of discharge, only where the discharge is causing a water quality impairment, only where the source is determined to be a significant contributor of pollutants to the impaired waterbody, and only where EPA is developing the TMDL in lieu of a state. However, agriculture and forestry groups strongly criticized the possibility that even some part of their activities could be subjected to CWA regulations.

Concerns of the forestry industry included challenging whether forestry's water quality impacts are significant enough to warrant EPA's proposed changes, suspicion that the reach of EPA's program would be broader than the Agency indicated, and a general fear of becoming subject to CWA regulation and enforcement. Before finalizing the revised rules, EPA first indicated that the provisions affecting forestry would be withdrawn for reproposal at a later date. But in the final rule, the Agency indicated that the forestry, AFO, and aquatic animal facilities provisions were dropped and that EPA does not intend to repropose any of them.

However, as discussed later in this report, agriculture and forestry sources are not sheltered from the substance of the TMDL program. As states continue to implement both the current program under existing rules and when they implement the revised program in the future, if agricultural and forestry nonpoint sources are identified as contributing to water quality impairments, states may seek controls or management practices by those sources in order to attain water quality standards.

Moreover, concerning animal feeding operations, other federal activities independent of the TMDL program are underway which could lead to more stringent regulation of some. In March 1999, EPA and the U.S. Department of Agriculture (USDA) announced a Unified Animal Feeding Operation Strategy to achieve improved animal waste management nationwide. One element of the strategy is revision of separate existing CWA regulations that govern discharges from large animal feeding operations, called confined animal feeding operations, or CAFOs. These revisions are expected to expand the regulatory coverage of AFOs which are defined as CAFOs and thus are subject to CWA permitting and enforcement.

Pollutant Discharge Offsets. EPA proposed in 1999 to require all large new discharges and existing discharges undergoing significant expansion that are proposing to discharge pollutant(s) of concern to an impaired waterbody to offset the new or increased discharge by reducing loads of the same pollutant from existing sources discharging into the same waterbody. Neither the CWA nor its regulations currently provide for such pollutant offsets. The new offset requirement would apply to discharges to impaired waters for which there is not yet a TMDL either established or approved by EPA. According to EPA, the proposed requirement for offsets was necessary to ensure that, in the interim before a TMDL is established, steps would be taken to ensure some progress towards water quality improvements and, at a minimum, ensure that additional impairments would not be permitted.

The final rule dropped this element of the 1999 proposal. In doing so, EPA acknowledged concerns expressed by many commenters, including states which had objected to the likely complexity of implementing the proposal. Municipalities also had objected, saying it would have negative impacts on growth and economic development in cities. The requirement would create incentives for industrial dischargers to move to smaller jurisdictions less likely to have impaired waters, in order to avoid compliance with an offset requirement, they said.

Citizen Petitions. EPA had proposed to codify a specific petition process, available under section 555(b) of the Administrative Procedure Act (APA), for citizens to petition EPA directly to perform Section 303(d) duties imposed on states. Under the APA, this petition process has been available but has not been used by citizens who, instead, have brought legal actions in court. EPA believed that having a petition process would streamline one aspect of this current program, since without such a process, citizen groups have pursued lawsuits that are both time-consuming and costly for all parties. The August proposal would allow citizens to present grievances about implementation directly to EPA, rather than the courts. EPA also said the change was intended to increase public awareness of the APA procedure and recognize the importance of the public's role in helping EPA and states implement the TMDL program.

States, however, said that EPA should not encourage or establish a petition process that implicitly encourages citizens to bypass state processes and go directly to EPA. The provision was not included in the final rule since, as EPA noted previously, the petition process remains available under the APA.

Required High Priority for Impaired Drinking Water Supplies or Endangered Species Issues. Current law and regulations require that states assign

a priority ranking to each listed waterbody, based on the severity of pollution and uses of the waterbody, including identification of pollutants and identification of waterbodies targeted for TMDL development before the next listing cycle. EPA's 1999 proposal affirmed the requirement for priority ranking. It required states to assign "high," "medium," or "low" priority for all waters for which TMDLs are to be developed. EPA proposed to require that high priority be assigned to waters used for public drinking water supply where the impairment causes a violation of a drinking water standard or waters in which a threatened or endangered species is present. Some states and others criticized this portion of the proposal, saying that it would mandate that states clean up impaired waters to levels set in drinking water standards. EPA said that this was not the intention. EPA should not mandate priorities for states, critics also said.

In the final rule, EPA modified the proposal in several ways. It dropped the requirement that states rank waters for TMDL development according to high, medium, and low priority but substituted a scheduling process that will require each TMDL to be ranked in priority order by date of development in year blocks. Further, the final rule does not require that an impairment at a public drinking water supply or the presence of threatened or endangered species be an automatic high priority for TMDL establishment. However, the rule provides what EPA characterizes as a rebuttable presumption that states will give priority attention to such waters, unless the state can explain why a lower priority is appropriate.

Identification of Threatened Waters. The Clean Water Act requires identification of waterbodies for which effluent limitations (technology-based pollution controls for point sources) are not stringent enough to attain water quality standards. Current EPA regulations require identification of waterbodies in need of TMDLs, wasteload allocation reductions (from point sources), and load allocation reductions (from nonpoint sources) in order to attain standards. In 1999, EPA proposed to require that states list waterbodies impaired *or threatened* by point sources only, nonpoint sources only, or a combination of point and nonpoint sources. States would be required to list waterbodies whether the cause of impairment or threat is individual pollutants, multiple pollutants, or pollution from any source. Under the proposed rule, "threatened" meant a waterbody that currently meets water quality standards, but adverse declining trends indicate that standards will not be met by the next listing cycle.

This was a key part of EPA's proposal, because the Agency believes that it is more desirable, both environmentally and economically, to protect waterbodies from possible impairment than to wait until they are impaired and then need to be restored. States argued that the difficulty and resource burden of identifying impaired waters under the current program are already significant and that an additional requirement to identify threatened but not-yet-impaired waters would be more so. EPA did not include this provision in the final rule, acknowledging concerns expressed in comments about the technical difficulties inherent in determining when water quality trends are declining.

Major Elements of the Final Rule

The current TMDL process consists of two elements: (1) identifying waterbodies where water quality standards are not being attained and (2) establishing TMDLs, which EPA describes as a budget of pollutant reductions needed in order for the waterbody to achieve and maintain standards. EPA's 1999 proposal to revise existing regulations addressed both elements of this process to clarify and strengthen the TMDL program. The final revised rule builds on the current TMDL regulatory program, adding details, many specific required elements, and deadlines. It retains the basic elements of the 1999 proposal: requiring states to develop a more comprehensive 4-part list of impaired waterbodies; requiring states to develop a more detailed listing methodology; requiring schedules for establishing TMDLs; specifying minimum elements in a TMDL, including an implementation plan; and specifying new public participation requirements. At the same time, the final rule and the Preamble in particular provide greater clarity and explanation about EPA's intent concerning a number of provisions (including those not included in the final rule) that were controversial or unclear in the proposal.

The final rule directly affects states, Territories, and Indian Tribes authorized to administer the CWA (although no Tribes are yet authorized to implement TMDL provisions). Impacts of the rule itself on industrial dischargers, cities, private landowners, sources of nonpoint pollution (including agriculture), or others are indirect and would result from implementation of TMDL requirements by states, Territories, and Tribes, not directly from EPA's rules. Determinations of impairments and required actions to remedy impairments will be site-specific and variable.

Current law and the existing TMDL program require states to identify waterbodies where water quality standards are not being attained and to establish a total maximum daily load of pollutants at a level that will attain water quality standards by allocating further required pollutant reductions among sources. The final revised program rule establishes new requirements for the listing program and requires schedules for completing TMDLs (the current program has no TMDL time schedules). The final rule also establishes 11 minimum requirements for the content and development of TMDLs, including an implementation plan as a required element of a TMDL. Under the CWA, if a state fails to develop the list of impaired waters or develop a TMDL, EPA is required to do so. For states, the revised TMDL rules increase their responsibilities to identify impaired waters in four ways: revising the identification/listing methodology, establishing schedules for TMDL development, increasing public participation, and providing the identification/listing methodology in a new format. In terms of establishing TMDLs, the revised rules increase states' responsibilities in two ways: developing implementation plans, and writing responses to public comments.

Definition of a TMDL. Under current regulations, a TMDL is defined as the sum of wasteload allocations (for point sources) and load allocations (for nonpoint sources) which do not violate the loading capacity of a waterbody, i.e., do not violate water quality standards.

In the final rule, a TMDL is defined as a written quantitative analysis of an impaired waterbody established to ensure that water quality standards will be attained

and maintained in all seasons for a specific waterbody and pollutant. The definition states the 11 minimum elements of a TMDL necessary for EPA approval (see below).

Listing Process–Data for Listing of Impaired Waterbodies. Current law and regulations require states to assemble and evaluate all existing and readily available data and information. Regulations also require a description of the methodology used to develop the 303(d) list,[6] plus the data and information used.

The final revised rule retains these general requirements but identifies sources of data and information specifically (e.g., CWA sec. 305(b) water quality assessment reports, CWA sec. 319 nonpoint source assessments, Safe Drinking Water Act source water assessments). EPA also requires states to detail the methodology or factors used to develop the list and to submit the listing methodology to EPA two years prior to submission of the 303(d) list. EPA will review and comment on the listing methodology but is not authorized to formally approve or disapprove it. However, a state's failure to act on EPA comments on its methodology could subsequently affect whether EPA will find the state's 303(d) list approvable.

Listing Process–Scope of Impaired Waters List. The law requires identification of waterbodies for which effluent limitations (technology-based pollution controls or more stringent for point sources) are not stringent enough to attain water quality standards. Current EPA regulations require identification of waterbodies in need of TMDLs, wasteload allocation reductions (from point sources), and load allocation reductions (from nonpoint sources) in order to attain standards. Existing rules also require identification of pollutants causing or expected to cause water quality standards violations. The statute uses both the broad term "pollution" and narrower term "pollutant" in section 303(d).[7] EPA guidance has been unclear, hence state implementation has been inconsistent, on whether lists should cover impairments due to pollution, pollutants, or both.

EPA's final rule clarifies that states must list waterbodies impaired by point sources only, nonpoint sources only, or a combination of point and nonpoint sources. States must list waterbodies whether the cause of impairment is individual pollutants, multiple pollutants, or pollution from any source. When a state identifies an impairment but lacks information regarding the presence of a specific pollutant, the state must present some biological information to support the impairment finding, such as non-support of an existing habitat use. As noted above, the final rule dropped portions of the proposal that also would have required states to identify "threatened" waters but says that states may voluntarily list such waters.

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[6] The term "list" is used here to refer to the list of impaired waterbodies that states are required to submit to EPA pursuant to CWA sec. 303(d).

[7] Under the Act, "pollution" is defined as "the man made or man-induced alteration of the chemical, physical, biological, or radiological integrity of water." The statutory definition of "pollutant" is narrower and means "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water." (CWA sec. 502)

Listing Process–Components of a List. Existing regulations require that the 303(d) list consist of water quality-limited segments still requiring TMDLs, but the rules recognize that certain impaired or threatened waterbodies do not require TMDLs and therefore those waterbodies need not be listed (e.g., those already attaining or expected to attain water quality standards with application of required pollution controls). No specific format for the list is currently required.

In the final rule, EPA requires states to list all impaired waterbodies, whether or not required pollution controls will attain water quality standards. The list is required to have a specific format, identifying waterbodies in four categories. A TMDL would be required only for waterbodies on Part 1 of a state's list.

- Part 1. Waterbodies impaired by one or more pollutants or unknown cause.
- Part 2. Waterbodies impaired by pollution but not impaired by one or more pollutants.
- Part 3. Waterbodies for which EPA has approved or established a TMDL and water quality standards have not yet been attained.
- Part 4. Waterbodies that are impaired, for which the state demonstrates that standards will be attained by the next listing cycle. If a Part 4 waterbody does not attain standards by the next listing cycle, it should be included in Part 1.

Listing Process–4-year Listing Cycle. Existing regulations require states to submit 303(d) lists on April 1 of even-numbered years. Under current regulations, the most recent state submissions occurred in April 1998, and the next submissions would have been due April 1, 2000.

The final rule increases the cycle for states to submit new 303(d) lists from two years to four years, with the next list due April 1, 2004. The change responds to criticisms from states which had said that a longer time would be more consistent with other state planning activities and would allow states more time to implement TMDLs, rather than develop lists.

Listing Process–Flexibility to Modify Lists within the 4-year Cycle. Existing regulatory requirements do not address when states can remove listed waters, but EPA guidance does, saying waterbodies can be removed if they are expected to attain water quality standards in the next two years, or if the original basis for listing was wrong. In 1999 EPA proposed that waters remain listed until water quality standards are attained, arguing that this approach provides a way to measure progress. A waterbody could be removed only upon attainment or based on information that the original listing was wrong.

States have sought flexibility that would allow them to modify an impaired waters list anytime sufficient new information is available, along with appropriate administrative procedures for prompt EPA decisions on modified lists. They argued that they should not have to meet more burdensome tests for delisting than for initial listing of impaired waters. In the final rule, EPA provides states some flexibility to add or remove listed waters or change the prioritized schedule between formal listing cycles. However, full EPA review and approval, as well as public comment

procedures, would apply to such changes. The basis for modifying a list remains essentially as EPA proposed: a waterbody could be removed only with new information indicating that the waterbody is attaining and maintaining applicable water quality standards.

TMDL–Minimum Elements of a TMDL. Current law and regulations require that TMDLs be established at levels necessary to meet water quality standards with seasonal variation and a margin of safety. In the final rule, as in the 1999 proposal, EPA requires that certain minimum elements be included in a TMDL.

- Waterbody name and geographic location.
- Identification of the pollutant and applicable water quality standard for which the TMDL is being developed.
- Quantification of the pollutant load that may be present in the waterbody and still ensure attainment of standards.
- Quantification of the amount of degree by which the current polutant load deviates from the polutant load needed to attain standards.
- Identification of the source categories, subcategories, or individual sources for which the wasteload allocations and load allocations are being established.
- Waste load allocations for pollutants from point sources.
- Load allocations for pollutants from nonpoint sources, including atmospheric deposition, groundwater, or natural background.
- Margin of safety.
- Seasonal variations.
- Allowance for reasonably foreseeable future loadings.
- Implementation plan.

TMDL–Up to 15 Years to Develop TMDLs. Current law and regulations contain no requirement for submitting a schedule for developing TMDLs for all listed waterbodies, but 1997 EPA policy guidance directed states to establish TMDLs 8-13 years after listing. In the August 1999 proposal, EPA proposed to require that states submit a comprehensive schedule for establishing TMDLs for all Part 1 listed waters "at a reasonable pace" but not later than 15 years.

EPA modified this part of the proposal in the final rule, requiring that in their 303(d) lists states must include a prioritized schedule to develop TMDLs for all Part 1 listed waters. The schedule must provide for establishing TMDLs as expeditiously as practicable, evenly paced over the duration of the schedule, and must identify by year when the state will develop each of the required TMDLs. The schedule is to provide for establishments of TMDLs within 10 years, but a 5-year extension is possible, if the state explains why 10 years is not practicable.

TMDL–Implementation Plan. Currently there is no requirement that states develop a TMDL implementation plan. In the Preamble to the final rule, EPA stated:

> Without implementation, TMDLs are merely paper plans to attain water quality standards. The implementation plan requirement assures that the Nation's remaining water quality problems will actually be addressed by

> appropriate actions identified in the implementation plans submitted as part of the TMDLs.[8]

The final rule, like the proposal, requires states to develop a plan as part of the TMDL. Thus, an implementation plan, like other elements of a TMDL, would be subject to EPA approval and disapproval.

States commented that EPA's proposed implementation plan requirements were overly prescriptive and that the required minimum elements would be rigidly imposed, regardless of the specific nature of a waterbody's impairments. They urged EPA to allow states the flexibility to consider various environmental, economic, social, and legal factors of a waterbody and its impairment. In response, EPA modified the final rule to specify separate implementation plan requirements depending on whether waterbodies are impaired only by point sources subject to CWA permits, by other sources (including nonpoint sources), or both. The clarification will permit states to not include elements unneeded or inappropriate to a particular waterbody or impairment.

Some elements are common to all impaired waterbodies: a schedule for implementation actions; the date by which the implementation plan will attain water quality standards; a modeling and/or monitoring plan; description of interim, measurable criteria to be used to determine progress; and when the TMDL needs to be revised. These were included in the 1999 proposal, and the final rule adds that the implementation plan should include a goal (not a regulatory requirement) of attaining and maintaining water quality standards within 10 years of establishing the TMDL, where practicable. The Clean Water Act has no specific deadlines or goals for attaining water quality standards, making this a new element in water quality programs.

For waterbodies impaired only by point sources subject to CWA permit requirements, the implementation plan will rely primarily on permits to be issued, reissued, or revised, consistent with effluent limits necessary to wasteload allocations in the TMDL. The final rule provides detail on when permits should be issued, reissued, or modified and states that, in the case of expired, administratively continued permits (see discussion below), EPA will ensure that such permits are reissued within two years of the establishment of a TMDL.

For waterbodies impaired only by nonpoint sources, the plan must include a schedule for implementing management measures or other control actions within five years to achieve necessary load reductions. This schedule is to be within five years, if practicable (i.e., it is a goal, not regulatory requirement). Thus, for example, if a TMDL is established in 2003, management measures should be implemented by 2008, if practicable. EPA states that it added the 5-year target in response to comments that there needed to be some target or goal for implementing control actions and/or management measures, since the Agency never intended that achievement of implementation by nonpoint sources would be open ended.

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[8] 65 *Federal Register* 43625.

For waters impaired by a combination of point and nonpoint sources, implementation plans must include all of the elements applicable to these sources. In addition, plans must include a description of the extent to which wasteload allocations (from point sources) reflect the expected achievement of load allocations (from nonpoint sources), that is, tradeoffs between wasteload and load allocations.

The final rule is more detailed than the proposal regarding a requirement that all implementation plans include "reasonable assurance" that the TMDL will be implemented. Reasonable assurance for point sources for which a CWA permit is required means that states must identify procedures to ensure that permits will be issued, reissued, or revised consistent with allocations in the TMDL.

For nonpoint sources, reasonable assurance means the state must demonstrate that management measures or other control actions (regulatory or voluntary) in the plan meet a 4-part test: (1) they specifically apply to the pollutant(s) and waterbody for which the TMDL is established; (2) they will be implemented as expeditiously as practicable; (3) they will be accomplished through reliable and effective delivery mechanisms, and (4) they will be supported by adequate water quality funding. The latter part means that the state has allocated existing water quality funds from any source to implement the TMDL or, if funds are not adequate, an explanation is provided of when funds will be available and will be used. The final rule specifically states that voluntary and incentive-based actions are acceptable to demonstrate "reasonable assurance," if they meet the 4-part test. This 4-part test was not included in the proposed rule, but EPA added this and other specifics about implementation plans in an effort to be clearer about what the revised rule will require of states and what elements must be included in an implementation plan in order for the TMDL to be approvable by EPA.

TMDL–EPA Authority. The law and current regulations require submission of TMDLs for EPA review and approval; if EPA disapproves, EPA is required to establish the TMDL. In the final rule, EPA retains the existing basic review and approval process but adds a provision allowing EPA to establish a TMDL if asked to do so by a state, if the Agency determines that the state will not do so consistent with its schedule, if EPA determines it should do so for interstate or boundary waterbodies, or to implement federal water quality standards.

The final rule provides somewhat more clarification than the 1999 proposal on circumstances when EPA would step in due to a state's failure to make substantial progress in establishing TMDLs. The final rule directs states to specify which TMDLs they intend to establish in each one-year period. If a state has not established the TMDL by the end of the one-year period or is not close to doing so, under the rule, it has not made "substantial progress." At that point, EPA must ensure that the TMDL is established within two years. EPA will publish the TMDL within two years of the date on which the date failed to make substantial progress, unless the state establishes the "missed" TMDL before EPA does so.

EPA Authority to Reissue State-Issued Expired and Administratively-Continued Permits. Under CWA section 402, EPA may review, and has 90 days to object to, state-issued discharge permits that fail to meet guidelines and requirements of the Act. State law often provides that, if a source makes timely reapplication

before the 5-year time when its permit expires, but the state is unable to act, the existing permit terms remain in effect until the state makes a final decision. Called administrative continuance, this protects permittees who have acted on a timely basis. Often because of resource constraints, states (and EPA, which is the permitting authority in 12 states) are unable to reissue permits on a timely basis: an estimated 35% of the 350,000 NPDES permits nationwide are currently backlogged for reissuance. Currently there is no express authority in law or regulations for EPA to object to and veto a permit that is expired or administratively continued.

EPA believes that administrative continuance of expired permits may allow for inappropriate delay in implementing pollutant controls, including those in TMDLs for impaired waterbodies. Thus, EPA proposed in 1999 and has included in the final rule a provision to treat expired permits as equivalent to a state submission of a permit that the state proposes to re-issue, thus allowing the Agency to comment on, object to, or recommend changes. If the state fails to respond, EPA can veto the permit and issue a permit in lieu. EPA states that it would use this discretionary authority only in limited circumstances: (1) if the discharge is subject to a TMDL established or approved by EPA and the expired permit does not reflect the TMDL, or (2) if the permit authorizes discharge of pollutant(s) of concern to an impaired waterbody for which there is no TMDL and other means of working with the state have failed.

TMDL–Transition. EPA's proposal included provisions to address the transition period between the existing and new regulatory program. For TMDLs under development now (by states or EPA) and for 12 months after issuance of final regulations, EPA proposed use of either the old or new TMDL rules, and if the TMDL is approvable according to the applicable rules, EPA would approve it.

The final rule retained the concept of allowing use of either the old or new rules but modified the transition period to last either 18 months from publication of the rule in the *Federal Register* (i.e., Jan. 13, 2002) or nine months from the effective date of the rule (July 30, 2002, under the rider in P.L. 106-246), whichever is later. During the transition, in situations where there is a schedule in a consent decree or settlement agreement, EPA will consider seeking an extension of that schedule in order to integrate the new requirement for implementation plans into the TMDL.

General–Public Participation. Currently there are no specific requirements for public participation, except that regulations do require that calculations to establish TMDLs shall be subject to public review, as defined by a state, and EPA must seek public comment when it disapproves and establishes a list or TMDL.

In the final rule, like the proposal, EPA requires states to provide the public with at least 30 days to review and comment on all aspects of 303(d) lists, listing methodology, schedule of TMDLs, and TMDLs, and to provide EPA with a written summary of public comments.

Discussion

While the final resolution of a revised TMDL program may yet occur through political events and/or litigation challenging EPA's actions, several initial points can be made.

Current Program Regulations Remain in Effect. The final rule signed by the EPA Administrator revises regulations that implement an existing CWA program. Under that existing program, states currently have responsibilities to identify impaired waters and develop TMDLs. Even while the effective date of the revised rule is delayed until October 2001, and even if the revised rule were withdrawn by EPA or possibly through enactment of a congressional joint resolution of disapproval under the Congressional Review Act, existing obligations on states remain in effect. So, too, do court-ordered or court-sanctioned schedules in at least 17 states where lawsuits have compelled states and EPA to implement the TMDL program. In several of those instances, states or EPA have been ordered to develop TMDLs on schedules with shorter timeframes than under the current program or under the up-to-15 years provided in the revised program.[9]

Further, while the final rule eliminated a number of EPA's proposals that generated controversy and criticism from agriculture and forestry groups, the activities of these groups are not sheltered from the TMDL program. As states implement the existing program, nonpoint sources and point sources alike may be directed to utilize additional pollutant controls and/or management measures. Under both the existing and the revised TMDL program, states are responsible for identifying impaired waters and allocating pollutant reductions needed to attain and maintain water quality standards. The revised program adds details, specificity, and deadlines to the existing program, but in either case, where nonpoint sources are associated with water quality impairments, states may assist or direct them to adopt practices or measures that will achieve necessary pollutant load reductions.

Resources and Funding Remain an Issue. Costs of the TMDL program, both existing and revised, are an important issue, especially for states which are directly affected by its requirements. The Administration has recognized the resource problem facing states, and the President's FY2001 budget requested $221 million in additional EPA and USDA grant funds to help meet those and related water quality needs. In comments on the August 1999 proposal, state groups estimated that funding for CWA grant programs would have to triple (from $315 million total in FY2000 to $945 million) to meet increased needs for monitoring, assessment, and TMDL development and implementation. Congress has not taken final action on appropriations bills that could provide the additional funds requested by the President.

Controversy has surrounded EPA's estimate of the cost impact of the TMDL program. EPA estimates that the revisions in the program established in the final rule will impose annual incremental costs on states, Territories, and Indian Tribes totaling $22.88 million, above baseline requirements of the existing program. By that estimate, the rule did not require a detailed analysis of costs, benefits, and alternatives, as is required by the Unfunded Mandates Reform Act of 1995, if a regulation includes

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[9] EPA issued policy guidance in 1997 which directed states to establish TMDLs within 8 to 13 years. Policy guidance is not binding in the manner that regulations are, and since current regulations have no such deadlines, EPA included deadlines in the revised rule, directing states to develop TMDLs in up to 15 years. This is a longer timeframe than is being mandated in many of the TMDL lawsuits. The schedules for TMDLs concluded by consent decrees and settlement agreements range from 4-1/2 years to 12 years.

a federal mandate that would result in expenditure by state and local governments or the private sector of more than $100 million in any one year. A similar directive is imposed on agencies by Executive Order 12866. A previous economic analysis prepared for EPA (but not formally presented in the August 1999 proposal) estimated annualized costs would range from $10.3 million to $24.4 million. States believe that EPA has greatly underestimated costs of the program. Many are critical that in evaluating its proposal to revise the existing program, EPA focused solely on the incremental costs of program revisions. In the Preamble to the final rule, EPA says that the largest part of the incremental costs ($13.7 million annually) will be associated with new requirements affecting content and development of TMDLs. Those incremental costs represent a 9% increase in the baseline costs for developing TMDLs under the current program.[10] Accordingly, the baseline costs for that portion of the existing program are $152.2 million per year. EPA stated in the final rule that it is preparing a supplemental cost and benefit analysis of the current program to be published in the near future.[11]

EPA also was faulted by many for not estimating possible impacts on small governments, small businesses such as farmers and landowners, or larger businesses. Recently, the General Accounting Office criticized EPA for estimating only the costs resulting from new requirements and also for its assessment of costs and benefits of the proposal.[12] EPA explained in the 1999 proposal and in the final rule that, because the rule does not directly apply to any discharger, including small entities, and since impacts on non-government entities are indirect, the Agency did not have to prepare a regulatory flexibility analysis, as would be required by the Regulatory Flexibility Act if the rule imposes substantial economic impact on small entities. Impacts on the private sector and local governments would flow from requirements already established by Section 303(d) and the states' water quality standards, not from the revised TMDL rule.

Implementation Questions Will Continue. In the revised TMDL rule, EPA has attempted to balance a need to provide specificity and clarity about what will be required of states with a need to recognize flexibility of state decisionmaking regarding the thousands of impaired waters for which TMDLs must be developed. During the public comment period on the proposal, some said the rule should be clearer regarding what actions by a state would and would not be approvable by EPA. Responding to that type of comment, for example, EPA included in the final rule the requirement for a 4-part test to determine if a TMDL implementation plan for nonpoint sources provides reasonable assurance that the TMDL will be implemented. On the other hand, other commenters favored much less specificity in the final rule and more of an approach directing states to achieve general performance objectives. According to that view, the more specific EPA's requirements, the more opportunity there is for EPA to intervene in state decisionmaking.

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[10] 65 *Federal Register* 43653-43654.

[11] *Ibid*., p. 43656.

[12] U.S. General Accounting Office. "Clean Water Act: Proposed Revisions to EPA Regulations to Clean Up Polluted Waters." GAO/RCED-00-206R. June 21, 2000.

How one evaluates the final rule depends in part on the prism of that person's approach to federal regulatory authority–EPA, particularly–and it is likely that all interested parties are displeased with some or many parts of the rule. Some, such as environmental groups, favor clearly defined objectives and milestones, in order to be able to assess compliance by the states and EPA. Others with diverse perspectives, ranging from state agencies to agriculture and industry groups, would prefer a TMDL program that is much less directed by EPA. Questions about EPA's role in the TMDL program and its relationship with states are likely to continue up to and well beyond the time when the revised rule becomes effective.