



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
WATER

MEMORANDUM

SUBJECT: Guidance for 1994 Section 303(d) Lists

FROM: Geoffrey H. Grubbs, Director
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TO: Water Management Division Directors
Regional TMDL Coordinators
Regions I - X

This memo discusses minimum requirements for the April, 1994, State lists of waterbodies requiring TMDLs under section 303(d) of the Clean Water Act (CWA). This memorandum provides guidance only and builds on previous guidance and reflects the policies and requirements of section 303(d) and the Water Quality Planning and Management regulation at 40 CFR Part 130. This guidance does not establish or affect legal rights or obligations. Decisions in any particular case will be made by applying the CWA and implementing regulations. This guidance is intended to help States and Regions meet the overriding program goals outlined below. It also addresses specific issues that arose during development of the 1992 lists.

The 1992 listing process was very successful. States and Regions used existing data in a very compressed time frame to develop lists of waterbodies requiring TMDLs. States and Regions worked jointly to assure that all requirements, especially those related to public participation, were complied with properly. Based on these lists, States started establishing TMDLs targeted for development during the 1992-1994 biennium.

Development of 1994 section 303(d) lists should build on this success. The section 303(d) list provides a comprehensive inventory of waterbodies impaired by all sources, including point sources, nonpoint sources, or a combination of both. This inventory is the basis for targeting waterbodies for watershed-based solutions, and the TMDL process provides the analytical framework to develop these solutions. Indeed, the use of TMDLs and the TMDL process is becoming an increasingly vital part of a growing number of State programs. The development of TMDLs and the process used to arrive at a TMDL is the technical backbone of the Watershed Protection Approach. Similarly, as larger numbers of permits are written that incorporate water quality-based effluent limits, the position of TMDLs as a keystone in the point source control



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program is strengthened. Finally, the applicability of the TMDL process to other than chemical stressors, such as degraded habitat and the resulting loss of healthy, balanced ecosystems, is increasingly being realized.

The 1992 listing process was the beginning of a much wider role for TMDLs and the 1994 listing process will continue to improve our ability to integrate solutions to water quality problems on a watershed basis. The three overriding national TMDL program goals for 1994 are:

1. *Develop fully approvable section 303(d) waterbody lists;*
2. *Integrate the section 303(d) listing process more completely into other State program activities, especially as it relates to the Watershed Protection Approach and the targeting of high priority watersheds; and*
3. *Assure consistent application of national §303(d) requirements, especially with regard to public involvement in the 303(d) list development process.*

These goals are discussed below.

1. DEVELOP FULLY APPROVABLE SECTION 303(d) LISTS

Development of fully approvable section 303(d) lists involves a number of considerations including: a) section 303(d) list development requirements; b) availability of data used to develop section 303(d) lists; c) relationship of section 303(d) lists to other CWA assessment and listing requirements; d) unassessed waterbodies; e) timing and content of section 303(d) submissions; and f) EPA review and approval of section 303(d) lists.

Question 1a. *What are the requirements for including waterbodies on the section 303(d) list?*

Section 303(d) requires that States develop a list of waterbodies that need additional work beyond existing controls to achieve or maintain water quality standards. The additional work necessary includes the establishment of TMDLs. The TMDL process provides an analytical framework to identify the relative contributions of each source to the impairment. The TMDL identifies the sources and causes of pollution or stress, e.g., point sources, nonpoint sources, or a combination of both, and establishes allocations for each source of pollution or stress as needed to attain water quality standards.

Waterbodies that do not or are not expected to meet water quality standards after implementing Best Practicable Technology (BPT), Best Available Technology (BAT), secondary treatment, and New Source Performance Standards (NSPS), as described in sections 301 and 306 of the CWA and defined under EPA regulations are water quality-limited. Not all water quality-limited waterbodies, however, must be included on the section 303(d) list. The Water Quality Planning and Management regulation (40 CFR Part 130) provides that waters need not be included on a section 303(d) list if other Federal, State, or local requirements have or are expected to result in the attainment or maintenance of applicable water quality standards.

Regions may choose to advise States to keep waterbodies on the section 303(d) list, notwithstanding establishment of an approvable TMDL, until water quality standards have been met. This approach would keep waterbodies on the section 303(d) list for which TMDLs have been approved but not yet implemented, or approved and implemented, but for which water quality standards have not yet been attained. Some Regions, on the other hand, may choose to advise their States to remove waterbodies from the section 303(d) list once a TMDL has been approved and track and manage TMDL activities and the attainment of water quality standards through other program functions. Under this approach, however, the waterbody should be returned to the section 303(d) list at any time that the approved TMDL and associated controls are found to be inadequate to lead to attainment of water quality standards, or if the controls fail due to incomplete implementation. EPA supports the use of either approach to manage State TMDL activities.

EPA believes that the following general strategy is useful for development of section 303(d) lists.

1. Identify water quality-limited waterbodies, i.e., waterbodies that will not or are not expected to meet water quality standards after the application of technology-based controls required by CWA sections 301(b) and 306.
2. Review water quality-limited waterbodies and eliminate waterbodies from consideration for listing under section 303(d) for which enforceable Federal, State, or local requirements will result in the attainment of applicable water quality standards.
3. Remaining waterbodies constitute the list submitted pursuant to section 303(d).

Several issues arose during the development of 1992 section 303(d) lists that require clarification. A number of States initially failed to list any waterbodies impaired by nonpoint sources. Some States incorrectly asserted that since best management practices (BMPs) or Coastal Zone Act Reauthorization Amendments (CZARA) management measures had not yet been established or implemented, a determination of whether or not the waterbody was water quality-limited could not be made, and waterbodies were omitted from the section 303(d) list.

Lists established under section 303(d) must include all waters for which existing pollution controls or requirements are inadequate to provide for attainment and maintenance of water quality standards. Accordingly, an impaired waterbody cannot be excluded from the section 303(d) list on the basis that required controls have not yet been established. However, if BMPs or CZARA management measures have been established or implemented and water quality standards have been attained or are expected to be attained in the near future, then the waterbody need not be included on the section 303(d) list.

Similarly, a question arose concerning the exclusion of impaired waterbodies from the section 303(d) list where TMDLs have not been completed but enforceable activities are reasonably expected to result in the attainment of applicable water quality standards in the near future. If compliance with water quality standards is to be attained through new effluent limits in permits for point source discharges, it can be assumed that water quality standards will be attained in the near future through established permitting mechanisms. Closer scrutiny is justified, however, where needed load reductions are to be attained through additional nonpoint source controls. In such

cases, for the purposes of the 1994 listing process, "the near future" should normally be viewed as prior to the required date for submission of the 1996 section 303(d) list. This should provide adequate time to complete any planning and implementation of nonpoint source control actions. Thus, if planned nonpoint source controls are not expected to lead to attainment of water quality standards by 1996, the water quality-limited waterbody should be included on the 1996 section 303(d) list.

Therefore, the implementation of an enforceable control does provide a rationale for not including a water quality-limited waterbody on the section 303(d) list if the required control is: (1) enforceable, (2) specific to the pollution/stressor problems, and (3) stringent enough to lead to attainment of water quality standards. Further, if the required control has not yet been implemented, a schedule for timely implementation of the control should be provided by the State. The difference, of course, is that the waterbody is not included on the list of waterbodies requiring TMDLs because an alternative method of achieving water quality standards exists.

Finally, a related question arose with respect to threatened waters. The TMDL guidance clearly states that the identification of threatened waters is an important part of the TMDL process and that threatened waters may be placed on the 303(d) list. Threatened waters are those waters that fully support their designated uses but that may not fully support uses in the future (unless pollution control action is taken) because of anticipated sources or adverse pollution trends. Threatened waters may also include high quality waters (e.g., Outstanding National Resource Waters) that may be potentially degraded by unregulated sources or stressors. By placing threatened waters on the section 303(d) list, States will: (1) be consistent with 40 CFR Part 130.7(c)(1)(ii) which requires that TMDLs be established for all pollutants that prevent or are expected to prevent water quality standards from being achieved; (2) be better able to maintain and protect existing water quality; and (3) meet EPA objectives to support State collection of data on impacted and threatened waters.

Question 1b(i). *What data are needed to include a waterbody on the section 303(d) list?*

In developing the 1992 submissions States used existing readily available data and information and best professional judgement to determine which waterbodies should be included on the section 303(d) list. This general approach should be followed in 1994. States are expected to use a combination of the most reliable databases, best professional judgement, and the best available information to develop section 303(d) lists. In addition, in 1994 greater use of predictive water quality modeling results should be made. EPA expects that this mix of databases, evidence, and best professional judgement will vary from State to State.

There are a number of sources that can be used to help determine whether a particular waterbody belongs on the section 303(d) list. These include section 305(b) reports, Waterbody System information, toxics chemical release inventory (TRI) data, CWA section 314 and 319 assessments, USGS streamflow information, STORET data, fish consumption advisory information, anecdotal information and public reports, and other State and Federal databases. States should use the best available information in making section 303(d) list determinations.

Question 1b(ii). *What type of information should be considered in deciding whether to include a specific waterbody on the section 303(d) list?*

Determining how much data and information are adequate to include a waterbody on the section 303(d) list is a deliberative process involving judgement. Appendix C of the 1991 TMDL guidance provides a list of screening categories that States should use to identify water quality-limited waters. Examples of the type of data and information that should be used in making this determination are provided below.

- Evidence of a numeric criterion violation. Example: Ambient monitoring data demonstrates exceedance of the State's ammonia criteria.
- Beneficial use impairment. Listing a waterbody due to beneficial use impairment requires information that shows the use is not being maintained and that this failure is due to degraded water quality. Example: A waterbody designated as a cold water fishery has exhibited a documented decline in fish population. The population decline is tied to the existence of sediment deposits on the stream bottom which inhibit or preclude spawning.
- Evidence of a narrative criterion violation. Example: Biological assessment demonstrates that a loss of biological integrity has occurred, in violation of a State's biological criterion.
- Technical analyses. Example: Predictive modeling or Rapid Bioassessment Protocol results that show that criteria will be violated or beneficial uses will not be maintained.
- Impairment demonstrated through other CWA mechanisms. Example: If a waterbody is included on a section 314 or 319 assessment, or is determined to be impaired under section 305(b), it should be reviewed for possible inclusion on the section 303(d) list.
- Other information sources. Other sources that support listing based on best professional judgement include information from the public participation process and information regarding the efficacy of existing control requirements to be implemented in the near future.

Question 1(b)(iii). *Are biological data that indicate impairments sufficient to support listing a water under section 303(d)?*

As noted above, biological data can be used to support listing a waterbody on the section 303(d) list. This is consistent with the use of biological assessment in EPA's section 305(b) guidelines.

Biological assessments can provide compelling evidence of water quality impairment because they directly measure the aquatic community's response to pollutants or stressors. Biological assessments and biological criteria address the cumulative impacts of all stressors, especially habitat degradation, loss of biological diversity, and nonpoint source pollution. Biological information can

help provide an ecologically based assessment of the status of a waterbody and as such can be used to decide which waterbodies need TMDLs.

Question 1c. *What is the relationship between section 303(d) listed waterbodies and other CWA assessment activities?*

There are other CWA requirements that require assessments and analyses similar to section 303(d). The most prominent of these are the section 305(b) Report and section 319 assessments.

Section 303(d) lists approved in 1994 should be consistent with these other lists and assessments as compiled and submitted by the States, particularly with regard to the section 305(b) Report because it will generally be submitted at the same time as the section 303(d) list. States and Regions should review potential section 303(d) waterbodies in light of the information contained in these other lists and assessments. To the extent the lists are different, the administrative record for an EPA approval should provide a justification for the differences.

Question 1d. *What about unassessed waterbodies?*

Waterbodies for which there are no physical, chemical, or biological information available should not be included on section 303(d) lists. However, EPA encourages States to increase the number of waterbodies actually assessed. EPA also expects that as waterbodies are identified for which there are insufficient data or data of questionable validity to determine whether the waterbody should be included on the 303(d) list, States will, to the maximum extent possible, make plans to collect additional information so that better and more informed 303(d) determinations can be made.

Question 1e(i). *When are 303(d) lists due to EPA?*

States must submit the next section 303(d) list (including pollutant or stressor identification, priority ranking and identification of waterbodies targeted for TMDL development during the next two years) on April 1, 1994, and every two years after that. Lists may be submitted in conjunction with section 305(b) reports.

In order to allow for a thorough review of State 303(d) lists, it is very important that a draft list be received by EPA prior to submission of a final list. EPA can then transmit comments on the draft section 303(d) list to the State, and revisions can be incorporated prior to providing for public comment. Following completion of public participation requirements, the list should be submitted to EPA as the final 303(d) list.

Question 1e(ii). *What kind of documentation is required to support a State list submission?*

States should submit adequate documentation to support the listing of waterbodies. Documentation should include a general description of the methodologies used to develop the list, a description of the data and information used to identify water quality-limited waters, and a rationale for any decision not to use any one of the categories of information sources listed in

Appendix C of the 1991 TMDL guidance. EPA expects that the 1994 listing methodologies will build upon the methods used to develop the 1992 lists.

EPA may request that the State provide additional information before an approval/disapproval decision is made. Two ways that States may prepare for requests for the information used to list waterbodies may include: (1) keeping an ongoing file or factsheet on each listed waterbody; or (2) waiting for a request for additional information, then assembling the information necessary to respond. While the second option may involve less work in the short term, it is likely that a file of information for a waterbody will be useful and necessary when TMDL development begins.

Question 1e(iii). *What other information would EPA like to receive?*

In addition to the 303(d) list, EPA is requesting that with each 303(d) list submission, States also include a brief description of the status of TMDL activities on waters that were targeted for development in previous two-year cycles. For example, with the 1994 303(d) list submissions, EPA should receive status reports on the TMDL activities taking place on the waters that were targeted for TMDL development during the 1992-1994 biennium. Similarly, in 1996 EPA should receive updates on the TMDL activities taking place on the waters that were targeted for TMDL development during the 1992-1994 and the 1994-1996 biennium.

Question 1f(i). *What kind of action can EPA take on a 303(d) list?*

States should work with EPA early in the development of section 303(d) lists to achieve complete, fully approvable list submissions by April 1 of even numbered years. EPA can take four actions on a State's section 303(d) list: (1) approval; (2) disapproval; (3) conditional approval; or (4) partial approval/partial disapproval.

Approval. If EPA determines that a State list (including pollutant or stressor identification, priority ranking, and identification of waterbodies targeted for TMDL development during the next two years) meet all section 303(d) requirements, EPA will notify the State of its approval in writing.

Disapproval. If EPA determines that a State list (including pollutant or stressor identification, priority ranking, and identification of waterbodies targeted for TMDL development during the next two years) substantially fails to meet the requirements of section 303(d) and 40 CFR Part 130, EPA will disapprove the State submission. Following a disapproval, EPA will identify waters where TMDLs are required, pollutants or stressors causing the impairment, and establish priorities and identify waters targeted for State TMDL initiation during the next two years. EPA will complete a proposed list including these elements, and take public comment on its proposed list.

Conditional approval. If EPA determines that a State list is predominantly acceptable, but disagrees with minor elements (e.g., pollutants or stressors causing an impairment), EPA may conditionally approve the list. Conditional approval should be used only for minor deficiencies in State submissions and should not be used to provide general review comments.

When a list has been conditionally approved, EPA will provide the rationale and any available supporting technical information used to justify the suggested revisions, deletions, or additions to the State list and allow the State a specified time period (typically 30 days unless a longer time period is necessary to allow public comment regarding the requested changes) to meet the conditions that EPA outlines. EPA will review the State response and determine whether the specified conditions are satisfied within 30 days of the State response.

Partial approval/partial disapproval. If EPA determines that parts of a State list are approvable and other parts of a State list must be disapproved, EPA may either disapprove the entire list or partially approve/partially disapprove it. In the event of a partial approval/partial disapproval, EPA must then revise the disapproved portion of the list and propose it for public comment as a supplement to the partially approved State list.

Whatever action EPA takes on a State list, EPA should explain the technical, programmatic, and administrative reasons for the action.

Question 1f(i). Can waterbodies be taken off the 303(d) list prior to TMDL development?

Because section 303(d) lists are dynamic, they may change from one two-year listing cycle to the next. A State may choose to remove a waterbody from its section 303(d) list if that waterbody is meeting all applicable water quality standards (including numeric and narrative criteria and designated uses) or is expected to meet these standards in a reasonable timeframe as the result of implementation of required pollutant controls. It may also be appropriate to remove a waterbody from the section 303(d) list if, upon re-examination, the original basis for listing is determined to be inaccurate. Removal of waterbodies from section 303(d) lists can be done once every two years, or as the waterbodies attain water quality standards during the biennium.

2. INTEGRATE THE SECTION 303(d) LISTING PROCESS MORE COMPLETELY INTO OTHER STATE PROGRAM ACTIVITIES, ESPECIALLY AS IT RELATES TO THE WATERSHED PROTECTION APPROACH AND THE TARGETING OF HIGH PRIORITY WATERSHEDS

Question 2a. How does the TMDL process fit in with other CWA water quality program activities?

The TMDL process is linked to all current State water quality activities. The TMDL process is the technical backbone of the Watershed Protection Approach (WPA), a comprehensive, integrated strategy for more effectively restoring and protecting aquatic ecosystems and protecting human health in geographically targeted watersheds. The TMDL process allows water resource managers and scientists to determine, on a watershed scale, the pollutants or stressors causing impairments and the allocations necessary to meet applicable water quality standards. In addition, the TMDL process provides a mechanism for States to target and prioritize watersheds where action is needed. Further, if a State adopts a rotating basin planning approach to implement its water quality programs, then TMDLs become an integral component of the basin schedule.

The development of section 303(d) lists and the establishment of TMDLs are facilitated by the collection of accurate chemical, physical, and biological data. Therefore, the TMDL process is closely linked to State water quality monitoring programs. Most states currently use the waters listed in the section 305(b) reports as not fully supporting designated uses as a starting point for the section 303(d) lists.

TMDLs can provide a critical connection between water quality standards and water quality-based controls, including National Pollutant Discharge Elimination System (NPDES) permits in the standards to permits process, and BMPs to control nonpoint sources. TMDLs are established based on the goal of attaining water quality standards, including designated uses, numeric and narrative criteria, and antidegradation provisions. Where TMDLs are established, NPDES permits are based on the TMDL and associated wasteload allocations, and nonpoint source controls are implemented consistent with the TMDL and associated load allocations. As a result, permits scheduled for reissuance and State nonpoint source control programs under CWA section 319 provide important information for consideration when developing 303(d) lists and the subsequent TMDLs.

Question 2b. *What is the relationship between the TMDL process and the requirements of the Endangered Species Act (ESA)?*

Section 7 of the ESA provides broad, general guidance to Federal agencies on how to interact with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) in consultations to determine whether a proposed federal action will affect endangered or threatened species or designated critical habitat. An "action" as defined by the ESA includes all activities or programs that are *authorized, funded, or carried out*, in whole or in part, by Federal agencies.

Whether or not TMDLs, or steps in the TMDL process, are actions as designated under the ESA is a question that is as yet unanswered. An interagency task force including EPA, USFWS, and NMFS is currently developing consultation guidance related to the Clean Water Act. The task force has suggested that the entire process from developing water quality standards to the issuance of a NPDES permit may potentially be viewed as one action. If this is the case, TMDLs may or may not require ESA consultation.

In general, the TMDL process should work to uphold the purpose and intent of the ESA. Consequently, in developing 303(d) lists, States should try to ascertain whether or not threatened or endangered species inhabit waterbodies, whether waterbodies have been designated as critical habitat, and whether proposed TMDLs are sufficient to meet water quality standards designed to protect threatened or endangered species. EPA will continue to monitor the interagency task force's progress in determining what portions of water quality programs may be subject to ESA consultation requirements.

3. ASSURE EVEN AND CONSISTENT APPLICATION OF NATIONAL SECTION 303(d) REQUIREMENTS, ESPECIALLY WITH REGARD TO PUBLIC INVOLVEMENT IN THE 303(d) LIST DEVELOPMENT PROCESS

Question 3a. *How can States and EPA assure consistent application of the national TMDL program?*

To assure consistency throughout the country in the TMDL process, States and EPA must follow EPA regulations and should follow national TMDL guidance, including the guidance outlined in this memorandum. Any questions about guidance should be directed to EPA. In addition, States and EPA should communicate with each other as frequently as possible about issues related to the TMDL process, including administrative, programmatic, and technical issues. Finally, States and EPA should strive to be creative in finding solutions to TMDL related issues and problems (e.g., trading).

Question 3b. *How can States and Regions assure consistency in 303(d) lists and prioritization and targeting for waters that flow through more than one State?*

EPA has encouraged States to develop and use their own methods to set priorities and target waterbodies for TMDL development. Waterbodies may therefore be proposed for inclusion on the section 303(d) list that flow through multiple States. Consequently, in some cases, inconsistent listings may be proposed. Regions should be aware of such potential inconsistencies and discuss with the States the possibility of coordinating priority setting and TMDL development efforts. Regions should, if necessary, address any inconsistencies that occur within their jurisdictions among States' section 303(d) lists. Regions are also expected to be aware of, account for, and if necessary, address any inconsistencies between a State of theirs and the State of an adjacent Region.

EPA believes that existing coordination mechanisms are adequate to deal with most potential inconsistencies, and that at this time, it is impractical and unnecessary to institute a formal "cross-checking" procedure to minimize Region-to-Region inconsistencies. However, informal Regional communications, especially between geographically adjacent and geographically similar Regions, should occur on a regular basis to help alleviate, or account for, inconsistencies. EPA Headquarters will help expedite such communication in several ways: (1) by scheduling and facilitating conferences calls among Regions, and (2) by examining the section 303(d) lists submissions to identify any gross inconsistencies.

Question 3c. *How does public participation fit into the TMDL process?*

There was some confusion in 1992 on requirements for States to provide for public participation in developing §303(d) lists and several Regions had to make section 303(d) list approval/disapproval decisions conditional on State fulfillment of public participation requirements. However, for the 1994 submittal and review process, EPA expects that all public participation requirements will be fulfilled prior to submitting the final section 303(d) list to EPA for formal review.

Public participation for section 303(d) lists must be consistent with section 101(e) of the CWA, which requires EPA and States to provide public participation "in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established...under the Act." EPA regulations require States to provide public participation in the development of lists of impaired waters under section 303(d). Public participation requirements are outlined in 40 CFR Part 25. In addition, Section 303(d)(2) (40 CFR 130.7(a)) provides that the process for developing section 303(d) lists and public participation be described in the State Continuing Planning Process under section 303(e).

Public participation is that part of the decision making process through which responsible officials become aware of public attitudes by providing ample opportunity for interested and affected parties to communicate their views. Public participation includes providing access to the decision making process, seeking input from and communicating with the public, assimilating public viewpoints, and preferences, and demonstrating that those viewpoints and preferences have been considered by the decision making official.

In the identification of water quality-limited waterbodies for State section 303(d) lists, States need to involve the public as part of their review of all existing and readily available data and information. EPA also expects States to include public participation in its determination of high priority targeted waterbodies that will proceed with TMDL development within two years following the listing process. At a minimum, public participation in the TMDL process should entail notifying the availability of proposed lists in a State Register or equivalent or a State-wide newspaper with a comment period of not less than 30 days. Public meetings should be held at the discretion of each State. It may be expedient to combine public notice for section 303(d) actions with public notices for other water program activities.