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SUMMARY OF EPA DRAFT PROPOSAL TO REVISE TMDL RULES

EPA has developed a draft proposal to revise the current regulatory requirements for establishing Total Maximum Daily Loads ("TMDLs") under section 303(d) of the Clean Water Act ("CWA"). The proposed rule would amend 40 C.F.R. §§ 130.2, 130.5, 130.6 and 130.7. This memorandum provides a brief summary of the regulatory revisions in EPA's draft proposal. In general, the memorandum focuses on the specific regulatory language included in the draft, along with explanations of that language in the preamble. It should be noted, though, that the draft also requests public comment on other regulatory options that are not reflected in the draft rule language.

When EPA issues the proposed changes to the TMDL rules in the Federal Register for public comment, it is expected that the Agency will also issue proposed changes to the NPDES permitting regulations (40 CFR 122 and 123), and will also ask for comment on a draft guidance document for the TMDL program. The permitting proposal and the TMDL guidance are not discussed in this memorandum, except for the discussion on page 9 of the "hierarchy approach" that will be included in the draft guidance.

I. BASIC TMDL CONCEPTS

Definition of "TMDL": A TMDL is defined as a written plan or analysis of an impaired waterbody established to ensure that water quality standards will be attained and maintained throughout the waterbody in the event of reasonably foreseeable increases in pollutant loads. TMDLs can be established on a segment-specific basis or on a watershed basis.

Definition of "impaired waterbody": The term "impaired waterbody" would include any waterbody of the United States that does not attain water quality standards due to an individual pollutant, multiple pollutants, pollution or an unknown cause of impairment, except for waters that are affected by thermal discharges from point sources (see below).

Definition of "impaired waterbody" for thermal discharges: For waterbodies that receive thermal discharges from point sources, the waterbody would be impaired if it does not have or maintain a balanced indigenous population of shellfish, fish and wildlife. (Note: If the waterbody does not meet water quality standards for temperature due to a reason other than point source discharges, such as solar radiation, channel or habitat modification or lack of instream flow, then the "balanced indigenous population" test does not apply. Instead, the waterbody is designated as impaired if it does not meet the State's applicable water quality standard for heat.)

Definition of "threatened waterbody": The term "threatened waterbody" would include any waterbody of the United States that currently attains water quality standards, but for which existing and readily available data and information on adverse declining trends indicate the waterbody will not meet water quality standards when the next list of impaired or threatened waterbodies must be submitted to EPA. For waterbodies threatened by thermal discharges, "threatened waterbody" means that adverse declining trends indicate a currently balanced indigenous population of shellfish, fish and wildlife will not be maintained by the time that the next list of impaired or threatened waterbodies must be submitted to EPA.

“Pollution vs. pollutant”: EPA previously approved 303(d) lists that identified impaired waterbodies based on either “pollution” or “pollutants.” The proposed rule expressly states that a waterbody must be listed if it is impaired or threatened by either pollution or a pollutant. However, TMDLs are required to be developed only for pollutants, not for pollution.

II. LISTING REQUIREMENTS

Scope of list: Waterbodies would have to be listed if they are impaired or threatened by point sources only, a combination of point and nonpoint sources, or nonpoint sources only, including atmospheric deposition. Further, waterbodies would have to be listed regardless of whether the impairment or threat is caused by individual pollutants, multiple pollutants or pollution from any source, including atmospheric deposition.

“Threatened” listings: In addition to impaired waterbodies, the proposed rule expressly requires that 303(d) lists must include *threatened* waterbodies.

“Antidegradation” listings:

For Tier 3 waterbodies (i.e., Outstanding National Resource Waters), a decline in water quality would represent an impairment for purposes of 303(d) listing.

A Tier 2 waterbody (i.e., a waterbody that is meeting standards) would be listed when adverse trend data and information indicate that a designated use will not be maintained by the next listing cycle.

A Tier 1 waterbody would be listed if it is not attaining a designated use or a more protective existing use. Also, a Tier I waterbody would be listed, as a “threatened waterbody,” if a designated use or a more protective existing use will no longer be attained by the time of the next listing cycle.

Use of Safe Drinking Water Act information: In making listing decisions, the State would have to consider “all existing and readily available water quality-related data and information,” which has been expanded to include the results of source water assessments under Section 1453 of the Safe Drinking Water Act.

New list format: The list would have to consist of four parts:

Part 1: Waterbodies impaired or threatened by one or more pollutants or unknown causes. A TMDL is required for waterbodies on this part of the list.

Part 2: Waterbodies impaired or threatened by pollution as defined by 40 C.F.R. § 130.2(c) but not impaired by one or more pollutants. A TMDL is not required for waterbodies on this part of the list.

Part 3: Waterbodies for which EPA has approved or established a TMDL and water quality standards have not have not yet been attained.

Part 4: Waterbodies that are impaired and for which implementation of best practicable control technology (BPT) for industrial point sources and secondary treatment for publicly owned treatment works (POTWs) are expected to result in attainment of water

quality standards by the next listing cycle. A TMDL is not required for waterbodies on this part of the list. If a waterbody on part 4 does not attain water quality standards by the time the next list is due to EPA, it must be included on Part 1 of the list, unless the State can show that the failure to attain is due to the failure of one or more sources to comply with BPT and/or secondary treatment.

“Expected-to-meet waters”: Under the current TMDL rules, EPA does not require listing if a waterbody is expected to attain water quality standards following the application of BPT, secondary treatment for POTWs, best available technology economically achievable (BAT), best conventional technology (BCT), more stringent effluent limits or other required pollution controls. The proposal requires all of those waters to be listed. A subset of those waterbodies, those expected to attain due to BPT and secondary treatment, would have to be listed under Part 4, and TMDLs would not be required. The rest of these “expected to meet” waterbodies must be listed under Part 1, and TMDLs must be established.

Identification of pollutants: The 303(d) list would have to identify the pollutant or pollutants causing the impairment or threat of impairment for each waterbody on Parts 1, 3 and 4 of the list. If the specific pollutant is unknown at the time of listing (for example, if the waterbody is listed based on a biological impairment), the waterbody must be included in Part 1 of the list, and the State must identify, to the extent possible, the class of pollutants causing the impairment. For those waterbodies on Part 2 of the list, the State must identify the type of pollution causing the impairment or threat of impairment. If it is unclear whether a pollutant or pollution is causing the impairment, the waterbody must be included in Part 1 of the list.

Rankings: States would have to assign either “high,” “medium” or “low” priority to each listed waterbody and pollutant combination on Part 1 of the list, taking into account the severity of the impairment or threatened impairment and the designated uses of the waterbody. Additional factors may be considered and must be explained by the State. A waterbody must be given “high” priority if it falls into either of the two categories: (1) it is designated as a public drinking water supply and the drinking water use is impaired or threatened; or (2) if listed endangered or threatened species are present in the waterbody. However, a water where listed species are present can be designated as medium or low priority if there is an approved Habitat Conservation Plan or other specific, enforceable mechanism developed under the Endangered Species Act that is specific to the pollutant and the waterbody, and which demonstrates that standards will be attained and maintained.

Delisting: Once listed, an impaired or threatened waterbody could not be removed from the 303(d) list until a new list is being developed and new data or information indicates that water quality standards are attained. If the waterbody was listed as “threatened,” the new data or information must indicate that the waterbody is no longer threatened. There is no provision for delisting or relisting a waterbody during the life of a particular 303(d) list.

EPA issuance of list: The proposed rule expressly authorizes EPA to establish a list of impaired or threatened waterbodies if a State asks EPA to do so, or if EPA determines that a State has not, or is not likely to, establish a list consistently with the schedule specified in the rules (see below).

Listing methodology: Each State would have to develop a draft listing methodology, notify the public of the availability of the draft methodology, and take comments on the draft methodology for no less than 60 days.

Listing factors: The listing methodology must include the following elements: (1) a listing of factors used to consider and evaluate data; (2) an identification of those types of data and information treated as "existing and readily available;" and (3) an explanation of how the State considered the following factors: (a) data quality and age; (b) the degree of confidence in the data; and (c) the number and degree of exceedances of numeric or narrative criteria and designated uses used to determine whether waterbodies are impaired or threatened.

Other elements of methodology: The listing methodology also must include the following elements: (1) a description of the selection factors used to include waterbodies; (2) a process for resolving disagreements with other jurisdictions as to waterbodies that cross State or international boundaries; (3) a description of the method and factors used to assign priority rankings to the waterbodies; and (4) an explanation of the conditions under which previously listed waterbodies may be removed from a new list.

Relation of listing and 305(b) decisions: The State methodology would have to describe how information in the State's 305(b) report will be used in listing decisions. EPA recommends use of its 305(b) guidelines in determining whether waterbodies support their designated uses, but encourages the States to be more specific if necessary. EPA also encourages consistency between the State's 303(d) listing decisions and its 305(b) report.

EPA review of listing methodology: The States would have to submit their methodologies to EPA nine months prior to the deadline for submitting the list, along with a summary of all comments received and the State's responses. EPA may review and comment on the methodology. EPA will not take any approval or disapproval action on the methodology, but will consider the methodology when it decides whether to approve the State list.

Timing of list/ranking submittals: EPA is considering whether States would have to submit 303(d) lists and priority rankings to EPA by October 1 of every **second, fourth or fifth** year, beginning in 2000. EPA will approve or disapprove all or a portion of a State's list within 30 days of receipt. (EPA also is considering whether to require TMDL schedules (see below) by October 1 of every **second, fourth, or fifth** year, beginning in 2000.

III. TMDL DEVELOPMENT REQUIREMENTS

TMDL schedule: The proposed rule eliminates the current requirement to identify waterbodies targeted for TMDL development in the next two years. Instead, the State would have to develop a comprehensive schedule to establish TMDLs for all waterbodies and pollutants on Part 1 of the list, to be completed as expeditiously as practicable, but not to extend beyond 15 years. The schedule would have to reasonably pace the TMDL development workload over the duration of the schedule. EPA recommends, but does not require, that high priority waterbodies be scheduled for establishment before medium and low priority waterbodies. EPA also recommends that States set a goal of completing all high-priority TMDLs within five years.

EPA review of TMDL schedule: EPA will not approve or disapprove the State's TMDL schedule, but will consider the schedule in evaluating the State 303(d) list and priority ranking of waterbodies. If the State does not follow its own schedule in developing TMDLs (e.g., develops low-priority TMDLs before TMDLs are done for some high-priority waterbodies), EPA will not disapprove the TMDLs that the State does develop, but the Agency may step in and develop a high-priority TMDL itself if the State has not done so.

Expression of allowable load: All TMDLs must contain an expression of the pollutant load necessary to assure that the waterbody will attain and maintain water quality standards, including aquatic or riparian habitat, biological, channel, geomorphological, or other appropriate conditions that represent attainment or maintenance of the water quality standard. The proposed rule authorizes four different approaches in expressing a TMDL:

- ◆ The pollutant load that can be present in the waterbody without exceeding water quality standards (e.g., daily, monthly, seasonal, or annual averages) - There are several situations in which daily loads are not appropriate. For example, phosphorous may be best suited for annual averages, while clean sediment loadings may be appropriately expressed as seasonal or annual allocations, and heat might be best addressed by allocating pollutants that cause changes in temperature, on a seasonal or monthly average basis.
- ◆ The pollutant load that must be reduced in the waterbody so that water quality standards are attained
- ◆ The pollutant load or reduction of pollutant load required to attain or maintain riparian, biological, channel, geomorphological measures of water quality standards - For example, to restore a spawning use, the State may need to increase spawning by 20%. The TMDL would be expressed in terms of the reduction in loading of clean sediment that is needed in order to meet that spawning target.
- ◆ The pollutant load or reduction of pollutant load that results from modifying a characteristic of the waterbody, e.g., riparian, biological, channel, geomorphological, or chemical characteristics, so that water quality standards are attained or maintained.

Elements of a TMDL: The minimum elements of an approvable TMDL would be as follows:

- ◆ The name and geographic location of the impaired or threatened waterbody and any upstream waterbodies that contribute significant amounts of the pollutant for which the TMDL is being developed
- ◆ Identification of the pollutant for which the TMDL is being developed, and quantification of the load that may be present in the waterbody and still ensure attainment and maintenance of water quality standards
- ◆ Identification of the amount or degree to which the current pollutant load in the waterbody deviates from the load needed to attain and maintain standards
- ◆ Identification of source categories, source subcategories or individual sources for which wasteload allocations and load allocations are being established
- ◆ The actual wasteload allocations and load allocations, and a demonstration that these allocations, when implemented, will attain and maintain standards
- ◆ **Issuance of wasteload allocations:** Wasteload allocations would have to be set, generally, for every individual point source that is required to have an NPDES permit. However, wasteload allocations could be set for categories or subcategories of point sources that are subject to a general permit (e.g., stormwater discharges, combined

sewer overflows, abandoned mines, and concentrated animal feeding operations), and for categories and subcategories of sources where the pollutant loads from those sources do not need to be reduced in order to meet water quality standards.

- ◆ **Load allocations for nonpoint sources:** Atmospheric deposition would be explicitly listed as a nonpoint source of pollution. Atmospheric deposition, natural background and individual nonpoint loads would have to be separately allocated where possible. For nonpoint sources, the State could develop a load allocation for a category of sources, but only where it is not feasible to allocate to individual sources or the loads do not need to be reduced in order to meet water quality standards.
- ◆ A margin of safety - which can be expressed as unallocated assimilative capacity or conservative analytical assumptions used in developing the TMDL
- ◆ Consideration of seasonal variations and critical conditions - The TMDL must account for seasonal variations and critical conditions concerning receiving water flow (e.g., low flow during droughts), receiving water conditions (e.g., temperature), beneficial use impacts (e.g., key aquatic life stages), pollutant loadings (e.g., high flow nonpoint runoff), and other environmental factors that affect the relationship between pollutant loadings and water quality impacts. For some pollutants, accounting for seasonal variations may require that different TMDLs be set for different levels of instream flow, based on variations in flow over the course of a year.
- ◆ An allowance for future loading, which must account for reasonably foreseeable increases in pollutant loads - If the State and EPA agree that "Smart Growth" policies will reduce future loadings, the allowance can be smaller than would otherwise be required.
- ◆ An implementation plan - An implementation plan can be developed for a single TMDL or for a group of TMDLs. **This is a new requirement.** EPA will not approve the TMDL unless the TMDL submittal includes an implementation plan and EPA determines that the plan is adequate.

Elements of a TMDL implementation plan: Each implementation plan would have to include the following elements:

- ◆ A description of the control actions and/or management measures that will be implemented, and a demonstration that those actions and/or measures are expected to achieve the required pollutant loads
- ◆ A timeline for implementation of those actions and/or measures, including interim milestones, a schedule for revising NPDES permits, and a listing of when source-specific activities will be undertaken for categories and subcategories of sources
- ◆ A description of the "reasonable assurances" that wasteload allocations and load allocations will be implemented - Reasonable assurance for point sources would require that enforceable NPDES permits be issued to implement applicable wasteload allocations for point sources. For nonpoint sources, procedures and mechanisms must be specific to the pollutant of concern, expeditiously

implemented and supported by reliable delivery mechanisms and adequate funding.

- ◆ A description of the legal authority under which control actions will be carried out
- ◆ An estimate of the time required to attain and maintain water quality standards, and a discussion of the basis for that estimate
- ◆ A monitoring and/or modeling plan designed to determine the effectiveness of the implementation actions and to determine whether allocations are being met
- ◆ A description of incremental, measurable milestones for the pollutant at issue, to be used in determining whether the actions and/or measures are being implemented and whether standards are being attained
- ◆ A description of the State's process for revising TMDLs if the milestones are not being met and projected progress toward attainment is not being demonstrated

Endangered and threatened species considerations: The proposed rule provides that a TMDL must not be likely to jeopardize the continued existence of a listed endangered or threatened species or result in destruction or adverse modification of its critical habitat.

Development of TMDLs for thermal discharges: For waterbodies impaired by thermal discharges from point sources, the State would have to develop a total maximum daily thermal load ("TMDTL"). The TMDTL must ensure protection and propagation of a balanced indigenous population of shellfish, fish and wildlife, taking into account normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the waterbody. The State must calculate a maximum heat input and a margin of safety, which takes into account any lack of knowledge concerning development of thermal water quality criteria. As with listing of thermally impaired waters, these TMDTL requirements would not apply to waters that are not attaining State water quality standards for heat due to factors other than point source discharges, such as solar radiation. TMDL's for those waterbodies would be set using the standard TMDL procedures described above.

Drinking water contaminants: The definition of "pollutant" would expressly encompass drinking water contaminants regulated under section 1412 of the Safe Drinking Water Act ("SDWA"), 42 U.S.C. §§ 300f, *et seq.*, and that may be discharged to source waters of one or more public water supply systems.

Use of Safe Drinking Water Act standards: If a listing is based on failure to attain a designated use of public water supply, or a more stringent use such as protection of aquatic habitat, but there is no numeric water quality standard for the pollutant of concern, the State should develop a reference point for developing a TMDL that is sufficiently below the drinking water standard (which may be a "maximum contaminant level (MCL)" or an "action level") to prevent excursions above the standard at a source water intake. If there is no pollutant-specific modeling data for the intake, EPA suggests a reference point of $\frac{1}{2}$ of the SDWA MCL or action level, or $\frac{1}{4}$ of the MCL or action level if the water body is "threatened."

Use of "hierarchy approach" in developing TMDLs: The TMDL Federal Advisory Committee (FACA) recommended that EPA apply a "hierarchy approach" to developing TMDLs, in which the degree of follow-up monitoring in a TMDL is inversely related to the amount of information

available when the TMDL is developed. EPA decided not to address in the proposal how States must develop TMDLs when there is uncertainty, so the "hierarchy approach" is not included in the proposed rules. However, EPA does plan to include that approach in the draft TMDL programmatic guidance that will be issued for public comment at the same time as the proposed rule. EPA also decided not to require that a TMDL must be based on data that meet very strict quality and analytical standards. EPA stated that such a requirement would be "impractical," and would lead to too few TMDLs being developed.

IV. PUBLIC PARTICIPATION REQUIREMENTS

The States must provide a minimum 30-day public comment period on their draft 303(d) lists, rankings, TMDL schedules and individual TMDLs. When those final documents are submitted to EPA, the State must provide EPA with a written summary of any comments received during the comment period, along with the State's response to each comment.

V. TRANSITIONAL ACTIONS

EPA intends for the new requirements to be effective 30 days after publication of the final rules in the *Federal Register*. However, the proposal states that EPA will approve any TMDL submitted to it for review within 12 months of the final rule's effective date if the TMDL meets either the requirements in the old regulations or the new requirements. Also, if EPA decides to develop a TMDL, it can choose to do so under either the old or the new sets of requirements.

EPA is considering the effect of the new requirements on States that have current Court-ordered schedules for development of TMDLs. The new requirements would probably mean that it would take longer for States to complete their TMDLs than under the current regulations. Therefore, EPA is considering two options: (1) phase-in the new requirements so States can meet their current Court-ordered schedules; or (2) seek to modify Court-ordered schedules as necessary, on a case-by-case basis.

VI. EPA PETITION PROCESS

The proposed rule establishes a new process for persons or organizations to file petitions with EPA, requesting that the Agency take actions that a State is required to perform under 303(d), such as development of TMDLs for waterbodies in that State. This procedure is intended to be used in the event of a State's substantial failure to develop TMDLs in accordance with the State's schedule. It would not apply to requests that EPA establish a particular TMDL sooner than is called for in the State's own schedule. EPA will respond "as quickly as practicable." The Agency's goal would be to respond to petitions within four months of receipt.

VII. REGULATORY ANALYSIS REQUIREMENTS

Regulatory Flexibility Act/SBREFA: EPA states that the proposed rule will not have a "significant impact on a substantial number of small entities" and therefore does not trigger the RFA/SBREFA requirements. The reasons are as follows: (1) the proposed requirements apply to States, not to small entities; (2) any impacts on small entities would be indirect and highly speculative; (3) TMDLs are not self-implementing; and (4) any impacts flow from existing requirements in 303(d) and State water quality standards, not the proposed regulatory amendments.

Exec Order 12866: EPA states that OMB review under E.O. 12866 is not required, because the proposed rule is not a "significant regulatory action." No explanation is provided.

Unfunded Mandates Reform Act: EPA states that the UMRA does not apply because the proposed rules would not result in costs to States, localities or the private sector of \$100 million per year. EPA estimates that the total cost to States would not exceed \$25 million per year, and there would be no cost to the private sector, since the proposed rules merely implement existing statutory requirements.

Paperwork Reduction Act: EPA has submitted the proposed rule to OMB under the PRA, along with estimates of the cost and personnel burden of the proposed new requirements. EPA estimates that the incremental annual cost for each State would be \$9,565.79 and the incremental annual personnel burden to comply with the requirements would be 237 hours.