

ORIGINAL

IN THE SUPREME COURT OF OHIO

BOARD OF COMMISSIONERS OF
FAIRFIELD COUNTY, OHIO,

Appellant,

v.

SCOTT J. NALLY, DIRECTOR OF
ENVIRONMENTAL PROTECTION,

Appellee.

: Case No. 2013-1085
:
: On Appeal from the Franklin County Court
: of Appeals, Tenth Appellate District
: (Court of Appeals Case No. 11AP-508)
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**MERIT BRIEF OF APPELLANT
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INTRODUCTION AND STATEMENT OF THE ISSUE FOR REVIEW

Distilled to its essence, this appeal presents the fundamental question of whether and when due process will be afforded to the members of a class of affected stakeholders adjoining an Ohio river or stream before they are subjected to new, binding, and frequently very expensive, pollutant limits developed by Ohio EPA.

The process at issue is the federal Clean Water Act-driven development of a total maximum daily load (“TMDL”), which is essentially a “pollution diet” developed for a “fat” river or stream found to be impaired by excessive amounts of pollutants. The affected stakeholders include: (1) all governmental, commercial, and industrial discharge permit holders in the watershed, (2) all farmers and other non-point sources of pollution in the watershed, (3) all owners/operators of storm sewer collection systems in the watershed, and (4) all homeowners who own private sewage disposal systems in the watershed, determined to be contributing to the obesity of the waterbody, and thus obligated to meet new standards designed to “reduce their fat” and return the stream to a healthy condition. The question is when, and in what manner, those stakeholders will be afforded meaningful review of the new standards before being forced to expend substantial resources to comply with them.

In the case *sub judice*, Fairfield County is the affected stakeholder that took up the laboring oar by challenging the TMDL developed by Ohio EPA, and approved by U.S. EPA, for the Big Walnut Creek watershed, a watershed consisting of more than forty waterbodies. When Ohio EPA imposed its new TMDL-derived pollution standards for Blacklick Creek in the County’s discharge permit, the County appealed the permit asserting, among other arguments, that the data, methodology, assumptions, and policy choices involved in the development of the TMDL were flawed, and that the new standards set forth in the TMDL

could not be imposed without first undergoing proper notice and comment rulemaking under Ohio law. The lower tribunals disagreed with the County's several arguments. This Court agreed to take up the issue pertaining to notice and comment rulemaking.¹

As demonstrated below, Ohio EPA's development of binding standards for the Big Walnut Creek watershed and Blacklick Creek clearly constitutes rulemaking under Ohio law, and U.S. EPA and several other states (at least ten so far) that have addressed the issue agree. Because Ohio EPA did not follow Ohio's requirements for rulemaking, the new standards are null and void and unenforceable until the Agency complies with these requirements.

STATUTORY/REGULATORY FRAMEWORK

Under the federal Clean Water Act ("CWA" or "Act"), 33 U.S.C. 1251 *et seq.*, states like Ohio that have been delegated the authority to administer the Act must: (1) identify all waterbodies that are incapable of achieving applicable water quality standards using just technology-based effluent limits, (2) create a list of the "impaired" waterbodies for U.S. EPA's approval, (3) prioritize the list for development of TMDLs designed to eliminate the causes of impairment of each waterbody, (4) develop TMDLs and implementation plans for each waterbody and submit the TMDLs to U.S. EPA for approval, (5) implement the approved TMDLs pursuant to their state CWA programs, and (6) assess the effectiveness of each implemented TMDL and adjust or modify it if needed. *See* 33 U.S.C. 1313(d)-(e); *see also* 40 C.F.R. 130.7 (same).

All TMDLs establish at least two sets of standards: (1) the maximum amount of pollutants, including a margin of safety, that an impaired waterbody can assimilate and still

¹ On November 18, 2013, Fairfield County moved the Court to reconsider its November 8 ruling and take up two additional TMDL-related issues for appeal. If the Court decides to hear the two additional issues, the County will file a supplement to this Merit Brief, or file an amended Merit Brief, that addresses the two issues.

achieve and maintain applicable water quality standards,² and (ii) the allocation of a pollution “diet” among all sources contributing to the impaired condition, designed to reduce pollutant loadings below the allowable maximum. Ohio Adm. Code 3745-2-12; *see also* 40 C.F.R. 130.7(c) (same).

The development of a TMDL is a significant and scientifically-rigorous undertaking, requiring, among other things, collecting and assessing voluminous chemical and biological water quality data for the applicable waterbody, collecting and assessing data from potential sources of the impairment(s), determining the maximum pollutant loading(s) the waterbody can assimilate and still maintain applicable standards, determining and ranking the causes of impairment(s), and developing an allocation or distribution of pollutant reductions among the sources, designed to eliminate the impairment(s) and restore the waterbody. *Id.*; *see also* U.S. EPA, *Guidance for Water Quality-Based Decisions: The TMDL Process* (April 1991), http://water.epa.gov/scitech/datatit/models/upload/1999_11_05_models_SASD0109.pdf (accessed Dec. 28, 2013). Not surprisingly, the development of TMDLs is a lengthy process, typically lasting two or more years for each impaired waterbody. *See e.g.* Ohio EPA, *Overview of the TMDL Project Process* (Mar. 12, 2001), http://epa.ohio.gov/portals/35/tmdl/integrated_process.pdf (accessed Dec. 28, 2013) (Ohio EPA’s timeline for developing TMDLs, showing an average of 18 months for data collection and assessment, followed by an average of 12 months to develop the TMDL).

After a state completes a TMDL, it must be submitted to U.S. EPA for approval, which

² Water quality standards consist of designated uses assigned to each waterbody (such as, for example, recreation, drinking water, coldwater fisheries, *etc.*), numeric and/or narrative criteria developed to protect the uses assigned to each waterbody, and an antidegradation policy that ensures long term maintenance of the uses in waters performing better than applicable criteria. *See* 40 C.F.R. 130.6; Ohio Adm. Code Chapter 3745-1.

that Agency must do within 30 days of receipt. 33 U.S.C. 1313(d)(2). While the CWA does not set forth U.S. EPA's review criteria, consistent with its limited time for review, U.S. EPA's review is procedural, not substantive. See U.S. EPA, *Guidelines for Reviewing TMDLs Under Existing Regulations Issued in 1992* (March 6, 2012), <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/final52002.cfm> (setting forth the procedural checklist) (accessed Dec. 28, 2013).

If U.S. EPA disapproves a state-drafted TMDL, or a state fails to develop a TMDL for a listed impaired waterbody, U.S. EPA must develop a TMDL for the applicable waterbody. 33 U.S.C. 1313(d)(2). Once U.S. EPA approves or issues a TMDL for a waterbody, the applicable state must implement it through the state's EPA-approved water quality management plan. 40 C.F.R. 130.6(c)(1) & 130.7(d)(2); see also Ohio Adm. Code 3745-2-12(G) & 3745-33-05(A) (requiring that Ohio EPA issue permits with limits based upon approved TMDLs).

As of May 9, 2013, Ohio EPA had organized Ohio's impaired waterbodies and watersheds into approximately 86 to-be-developed TMDLs, approximately one-third of which have been completed, approved by U.S. EPA, with the applicable standards in some unspecified stage of implementation; and the remaining two-thirds still in various stages of preliminary assessment or development of applicable standards. See Ohio EPA, *Ohio Total Maximum Daily Load Program Process* (May 9, 2013), http://epa.ohio.gov/Portals/35/tmdl/TMDL_status_May2013.pdf (colored map of Ohio showing the stage of TMDL development across the State) (accessed Dec. 28, 2013).

STATEMENT OF FACTS AND PROCEDURE OF THE CASE

A. The Tussing Road Wastewater Treatment Plant.

Fairfield County owns and operates the Tussing Road wastewater treatment plant (the

“WWTP”) located along Blacklick Creek in Pickerington, Ohio. *Board of Commissioners of Fairfield County, Ohio v. Director of Environmental Protection*, 10th Dist. App. Franklin No. 11AP-508, 2013-Ohio-2106, ¶ 4 (“App. Op.”). The WWTP treats wastewater before discharging it to Blacklick Creek pursuant to a National Pollutant Discharge Elimination System (“NPDES”) permit issued by Ohio EPA. *Id.* at ¶ 23.

B. The TMDL for the Big Walnut Creek Watershed.

In 2000, Ohio EPA began studying the water quality of the Big Walnut Creek watershed, which includes Blacklick Creek. *Id.* at ¶ 14. The watershed contains more than forty waterbodies. Joint Exhibit (“J.E.”) 13 (TMDL) at pp. 16-22. After concluding that the watershed was impaired, the Agency spent the next five years developing a TMDL to identify and address the causes of impairment (the “TMDL”). *Id.* at ¶ 17. The TMDL (1) concluded that nutrient enrichment due to elevated discharges of phosphorus was a primary cause of impairment in the watershed,³ (2) set a maximum standard of 0.11 mg/l for phosphorus for the watershed and its tributaries to achieve and maintain applicable water quality standards, (3) concluded that numerous point and nonpoint sources were causing or contributing to the impairment, including the County’s WWTP,⁴ and (4) established an allocation of pollutant loadings to be distributed among all of the alleged causes of the impairment, designed to reduce phosphorus discharges to enable the 0.11 mg/l standard to be achieved. *Id.*

Based upon the 0.11 mg/l maximum standard set for phosphorus for the watershed, Ohio EPA then developed a second standard, consisting of the phosphorus loading reductions that the

³ Other identified “priority” causes of impairment in the watershed were stream habitat alterations, siltation, organic pollutant loadings, and pathogens. J.E. 13 (TMDL) at pp. 23-27.

⁴ Other sources identified in the TMDL as causing or contributing to the impairment were farmers involved in crop production or raising livestock, owners of private home sewage disposal systems, urban development, runoff from stormwater collection systems, and discharges from other wastewater treatment plants. *Id.* at pp. 16-22, 50-51, and 62-69.

sources of the impairment would have to meet to achieve the 0.11 mg/l standard. The portion of the “allocation diet” assigned to the County’s WWTP was a phosphorus discharge limit of 0.5 mg/l. App. Op. at ¶ 17. Ohio EPA submitted the TMDL to U.S. EPA in August 2005; less than a month later, U.S. EPA approved it. *Id.*

C. Application of the TMDL Standards to the County’s Treatment Plant.

On June 30, 2006, Ohio EPA issued a renewal NPDES permit for the County’s WWTP. *Id.* at ¶ 19. Included in the permit was a new 0.5 mg/l phosphorus limit taken from the final TMDL. *Id.* In order to meet the new limit, the WWTP would need to install over \$5 million of additional equipment. *Id.* at ¶ 39; *see* Hearing Transcript (“Tr.”) v. III, p. 12; J.E. 30 at p. 13.

John Owen of Ohio EPA was responsible for developing the permit limits imposed in the County’s new permit. App. Op. at ¶ 24. Mr. Owen admitted that the sole reason he included a phosphorus limit in the permit was because the limit was set forth in the Big Walnut Creek TMDL. *Id.* Owen simply plugged the number into the permit. *Id.*; *see also* Tr., v. III, pp. 137-41, 166. He did not conduct an independent analysis to evaluate whether a phosphorus limit was warranted, and, if so, what the limit should be. App. Op. at ¶ 24; *see* Tr., v. III, p. 161.

Ohio EPA did not follow the requirements of Ohio’s Administrative Procedures Act, R.C. Chapter 119, and promulgate the new standards set forth in the TMDL before imposing them in the County’s NPDES permit. App. Op. at ¶ 76.

D. Appeal to the Environmental Review Appeals Commission.

Fairfield County timely appealed the issuance of the NPDES permit to the Environmental Review Appeals Commission (“ERAC” or “the Commission”), setting forth multiple reasons why the phosphorus discharge limitations were unlawful and unreasonable. *Id.* at ¶ 20. The Commission conducted an evidentiary hearing in February 2009. *Id.*

The evidence adduced at the hearing demonstrated that the only analysis of the phosphorus limit was done by Ohio EPA employee Matt Fancher, who authored the portion of the TMDL pertaining to Blacklick Creek in the vicinity of the County's WWTP. *Id.* at ¶¶ 21-22. Long after the permit was initially prepared, he was asked to prepare a memorandum to address Fairfield's County's objections to the phosphorous limits in the draft permit. *Id.*; *see also* J.E. 6; Tr., v. III, p. 177-78. However, neither he nor Mr. Owen, nor anyone else at Ohio EPA, evaluated the impact—or, more accurately, the lack thereof—of current or future discharges of phosphorus from the WWTP on attainment of applicable biological standards for aquatic life. App. Op. at ¶¶ 23-24; *see* Tr., v. III, p. 197. All of the expert testimony presented at the hearing, including that of Ohio EPA's own witnesses, documented that Blacklick Creek is in attainment of all aquatic life-based biological water quality standards downstream of the WWTP discharge.⁵ Tr., v. II, pp. 31-36, 121, 170-171; *see also* J.E. 17, p. 15.

Further, unrebutted testimony from the County's expert witnesses demonstrated the absence of a scientific justification for the 0.5 mg/l phosphorus limit and that the WWTP was not presently having, nor would in the future have, an adverse impact on water quality in Blacklick Creek. Tr., v. I, p. 142, v. II, pp. 75-76, v. IV, p. 147. Even the testimony of Robert Miltner, Ohio EPA's own expert in water quality standards and aquatic biology, supported the testimony given by Fairfield County's experts. Tr., v. II, pp. 166-171.

Mr. Fancher admitted that the standard set forth in the TMDL for the maximum phosphorus loading that Blacklick Creek could assimilate and still maintain applicable water quality standards was not a value developed as a promulgated water quality standard for the

⁵ Although the Big Walnut Creek TMDL found some sections of Blacklick Creek in non-attainment (*i.e.*, impaired), none of these sections was remotely close to the Tussing WWTP. The TMDL did not attribute any area of non-attainment to discharges from the WWTP. Tr., v. II, p. 24.

Creek, but was instead a “target value” of 0.11 mg/l lifted from a technical guidance document that Ohio EPA issued in 1999. App. Op. at ¶ 23; *see also* J.E. 21; Tr., v. IV, p. 99. In developing the TMDL, Mr. Fancher testified that he assumed that the concentration of phosphorus in the Creek could not exceed the 0.11 mg/l target value. App. Op. at ¶ 23.

Using the 0.11 mg/l target value as the maximum allowable concentration for phosphorus in Blacklick Creek, Mr. Fancher then developed the second standard in the TMDL (the pollution diet for the Creek) by performing alternative phosphorus loading allocations for point and nonpoint source dischargers believed by Ohio EPA to be contributing to the impairment. *Id.* His first allocation assumed that point sources like the County would all have to meet a 1.0 mg/l phosphorus limit in their discharge permits, which resulted in a determination that all nonpoint sources, such as farms, golf courses, and sources of urban runoff, would need to reduce their discharge of phosphorus by 90% to avoid exceeding the 0.11 mg/l standard. *Id.* Concluding that these numbers “just didn’t add up,” Mr. Fancher redid the allocation using a 0.5 mg/l phosphorus limit for all point sources, including the County, which resulted in a determination that all nonpoint sources would need to reduce their discharge of phosphorus by 80% to meet the 0.11 mg/l standard. *Id.* Mr. Fancher was unable to remember who recommended these allocations to him, the basis for them, or why he did not run the allocation with other values. *Id.*; *see* Tr., IV, pp. 104-105.

Despite the TMDL’s serious deficiencies demonstrated at the hearing, the Commission held that U.S. EPA’s approval of the TMDL, standing alone, created a sufficient, valid, and essentially unchallengeable, factual foundation for the phosphorus standards. *See Board of Commissioners of Fairfield County, Ohio v. Director of Environmental Protection*, ERAC No. 235929, 2011 WL 1841913 (May 12, 2011).

E. Appeal to the Tenth District Court of Appeals.

Fairfield County appealed ERAC's decision to the Tenth District Court of Appeals, and the Director cross-appealed. App. Op. at ¶ 41. In the portion of the decision relevant to the Assignment of Error over which this Court has accepted jurisdiction, the Court of Appeals affirmed the holding below that Fairfield County's NPDES permit lawfully imposed the 0.5 mg/l phosphorus limit because the limit was derived from a "properly developed and federally approved TMDL allocation." *Id.* at ¶ 76. Relying exclusively on *Jackson County Environmental Committee v. Schregardus*, 95 Ohio App. 3d 527 (10th App. Dist. 1994), the Court of Appeals concluded that the Director had not imposed an unpromulgated rule in the County's renewal NPDES permit. *Id.* This appeal followed.

ARGUMENT

Fairfield County, Ohio's Proposition of Law:

A TMDL is a rule that must be promulgated in accordance with Ohio law before it can be used as the basis for a NPDES permit limit.

As spiritual advice, marching to the beat of one's own drum may be sound. It is not, however, sound jurisprudence. The Court of Appeals' decision that a TMDL is not a rule that requires promulgation under R.C. Chapter 119 contradicts Ohio law, is inconsistent with the precedent established by other states in their TMDL processes, and is also inconsistent with the practice of U.S. EPA itself when it must step in to develop a TMDL.

A. The Big Walnut Creek Watershed TMDL Contains Binding Standards of Uniform Application for More than Forty Waterbodies in the Big Walnut Creek Watershed and for all Alleged Sources of the Impairment and Must Therefore be Promulgated as Rules under R.C. Chapter 119 before the Standards can be Applied.

Rule promulgation is necessary "to permit a full and fair analysis of the impact and validity of a proposed rule." *Condee v. Lindley*, 12 Ohio St. 3d 90, 93, 465 N.E. 2d 450 (1984).

Ohio's Administrative Procedures Act (the "APA"), R.C. Chapter 119, allows this analysis by providing an opportunity for opponents of a proposed regulation to express their views as to the wisdom of the proposal and to present evidence with respect to its legality. *Northeast Ohio Regional Sewer District v. Shank*, 58 Ohio St. 3d 16, 24, 567 N.E. 2d 993 (1991) (citations omitted). The failure of any agency to comply with such procedure invalidates the rule or amendment adopted, or the rescission of the rule. R.C. 119.02.

Although R.C. 119.01(C) defines rule as "any rule, regulation, or standard having a general and uniform operation, adopted, promulgated, and enforced by any agency under the authority of the laws governing such agency..." this Court has interpreted the statute broadly, holding that "[i]t is the effect of the [document], not how the [agency] chooses to characterize it, that is important" in determining whether the document qualifies as a "rule." *State ex rel. Saunders v. Industrial Commission*, 101 Ohio St. 3d 125, 2004-Ohio-339, 802 N.E. 2d 650, ¶ 26 (quoting *Ohio Nurses Association, Inc. v. State Board of Nursing Education and Nurse Registration*, 44 Ohio St. 3d 73, 76, 540 N.E. 2d 1354 (1989)). "[T]he pivotal issue in determining the effect of a document is whether it enlarges the scope of the rule or statute from which it derives rather than simply interprets it." *Id.* at ¶ 27 (citing *Ohio Nurses Association, supra*, at 76).

Perhaps the case most directly on point is *Condee v. Lindley, supra*, 12 Ohio St. 3d 90 (1984), which involved a longstanding policy by the Tax Commissioner that distinguished property of electric companies that was "situsable" (having a fixed location) and non-situsable. *Id.* at syllabus. The policy required the electric companies to report their situsable property at seventy percent of its true taxable value, and allocate the remaining thirty percent of the value as non-situsable property. *Id.* This "seventy-thirty" formula had not been adopted according to

R.C. Chapter 119. *Id.* at 91-92.

The Tax Commissioner argued that the policy was a valid administrative policy because it fulfilled a statutory apportionment directive. The Court disagreed and held that satisfying a statutory directive did not exempt the policy from the rulemaking requirements of R.C. Chapter 119. Because the policy consisted of a general apportionment that applied to individual utilities, it was a requirement of general and uniform applicability and therefore a rule under the APA. *Id.* at 92.

In *Ohio Dental Hygienists Association v. Ohio State Dental Board*, 21 Ohio St. 3d 21, 487 N.E. 2d 301 (1986), the Court likewise held that an advisory letter establishing which orthodontic procedures could be delegated by a licensed dentist qualified as a rule, because it established standards that expanded the scope of existing regulatory authority applicable to dentists. *Id.* at 25 (*citing* R.C. 4715.39). Similarly, the Court held in *Ohio Nurses Association, Inc., supra*, 44 Ohio St. 3d 73, that a position paper that described the authority of licensed practical nurses to administer intravenous fluids was subject to the APA. *Id.* at 74-76. The Court concluded that the paper qualified as a rule because it enlarged the scope of practice for nurses, regulated nurses by requiring a post-licensure course of study, and had uniform application to a class of people, *i.e.*, licensed practical nurses in Ohio. *Id.* at 75-76.

The most comprehensive analysis of the rule-like properties of TMDLs is found in *Asarco Incorporated v. State of Idaho*, 69 P. 3d, 139, 141 (Id. 2003), where the Supreme Court of Idaho held that a TMDL established by the Idaho Division of Environmental Quality (“DEQ”) should have been subject to formal rulemaking under that state’s administrative procedures act. The case involved a challenge by several mining companies to the DEQ’s use of an unpromulgated TMDL for the Coeur d’Alene River Basin as the basis for lead, zinc, and

cadmium limits. Although the DEQ had provided notice to interested parties and taken testimony regarding the establishment of the TMDL, the DEQ conceded that it had not followed the Idaho Administrative Procedures Act for rulemaking. The DEQ argued that a TMDL is “an unenforceable planning tool analogous to a comprehensive plan; the TMDL does not prescribe a new enforceable standard; and the TMDL does not have the force and effect of law.” *Id.* at 142-143. The Supreme Court of Idaho disagreed, and found that the TMDL constituted a rule. *Id.* at 143. It determined that a TMDL has “wide coverage” because it applies “generally and uniformly” to “all current and future dischargers in a specific water body,” and therefore applied to “a large segment of the general public rather than an individual.” *Id.* at 143-144. The Idaho Supreme Court also concluded that the TMDL process requires “focus on the waterbody as a whole, as opposed to the individual sources of pollution,” and prescribed a “legal standard” because it “in fact contains quantitative legal standards not provided by either the Clean Water Act or the Idaho Water Quality Act.” *Id.* at 144. Based on this reasoning, the Idaho Supreme Court held that the TMDL was void because the DEQ had failed to comply with formal rulemaking requirements in developing it. *Id.*

By establishing a quantitative pollution budget for bodies of water that is not found in a rule or statute, a TMDL enlarges the scope of the Ohio EPA’s regulatory authority. There is nothing interpretative about the Agency’s decision (1) to set the “maximum” amount of pollution that a water body can handle, (2) to elevate a technical guidance document into a *de facto* water quality standard, and (3) to then develop a second set of standards consisting of a loading allocation budget between nonpoint and point sources required to achieve the new standard. In addition, by applying this budget to a class of dischargers located within a specific water basin, a TMDL applies uniformly and generally to a class of entities. 40 C.F.R. 130.2(I); *see also Ohio*

Nurses Association, Inc. supra, 44 Ohio St. 3d at 74. As the Supreme Court of Idaho concluded, “even though the TMDL involves determinations of specific applicability, the over-all scheme demonstrates the TMDL is more appropriately described as generally and uniformly applicable.” *Asarco*, 69 P. 3d at 144.

In the Court of Appeals below, the Director described TMDLs as “water quality standards.” See Director’s Merit Brief at p. 14. In this respect, he is correct. A TMDL imposes a general and uniform requirement that enlarges the scope of existing regulatory authority, and therefore meets the definition of a rule under the APA. It is therefore subject to the meaningful review that is accorded to any other rule promulgated in the State of Ohio.

B. Ohio EPA’s Process of Developing the Big Walnut Creek Watershed TMDL Is Indistinguishable from the Process the Agency Utilizes to Develop all of its Substantive Rules that Impact the Regulated Community in Ohio.

A rule by any other name is still a rule. Whether Ohio EPA calls the binding standards it established for the Big Walnut Creek watershed a “TMDL,” or merely guidance, policy, or recommendations, is irrelevant. It is the uniform, binding effect of the standards on the classes of impacted stakeholders that matters, not the choice of adjectives or nouns used to wrap the package. See *e.g. National Mining Association v. Jackson*, 880 F. Supp. 2d 119, 130 (D. D.C. 2012) (striking down U.S. EPA’s issuance of water quality standards for conductivity for the Appalachian-region states because they were not properly promulgated as rules under the federal APA, and rejecting as “boilerplate” EPA’s characterization of the standards as merely nonbinding guidance).

When Ohio EPA undertook its five-year process to develop the Big Walnut Creek watershed TMDL, it employed basically the same procedures that it and all other state and federal environmental agencies employ when developing a myriad of different rules that impact

the regulated community. In a process no different than, for example, when human health-based ambient air quality standards are developed, or technology-based air emission standards are developed for power plants, Ohio EPA undertook a lengthy process of (1) collecting data and information to assess existing discharge levels for phosphorus in the watershed, (2) collecting data and information to assess the aquatic health of the streams and develop a cause-effect link between discharges and aquatic impacts, (3) evaluating, selecting, and ranking sources of the impairment, and (4) developing standards to eliminate the existing impairment and prevent future impairment of the watershed. *See* J.E. 13 (TMDL).

The fact that the outcome of this process is a lengthy and comprehensive report termed a TMDL, that contains scientific data and analyses, and lots of graphs, charts, and colored pictures, is of no moment. The only real difference from traditional rulemaking is that the new standards in the case *sub judice* are buried in the body of a lengthy TMDL report, rather than set forth in a separate set of properly-proposed, properly-formulated rules. And the data, assumptions, conclusions, and policy choices that support the new rules are wrapped around the rules, instead of being set apart in an administrative record created for the purpose of supporting proposed rules undergoing proper notice and comment rulemaking.

C. Other States' Courts have Ordered that TMDLs Undergo Rulemaking Procedures, and Several Additional States Promulgate them as Rules even in the Absence of a Judicial Mandate.

The Court of Appeals' ruling that Ohio EPA need not undertake rulemaking before applying the Big Walnut Creek watershed TMDL to Fairfield County and other impacted parties has cast Ohio's jurisprudence adrift from that of other states. *See e.g. Asarco Incorporated v. State of Idaho, supra*, 69 P. 3d at 141 (Id. 2003); *South Carolina Commissioners of Public Works v. S.C. Dep't of Health & Environmental Control*, S.C. ALC No. 03-ALJ-07-0126-CC, 2003 SC

ENV LEXIS 92, **20-26 (Sept. 22, 2003) (“...[B]ecause the TMDL was not promulgated as a regulation under the South Carolina Code, it does not have the force or effect of law...Consequently DHEC is not authorized to rely on the TMDL to establish permit limits.”), *aff’d in part on other grounds Commissioners of Public Works v. South Carolina Dep’t of Health & Environmental Control*, 372 S.C. 351, 363-364 (2007); *Sierra Club v. U.S. EPA*, 162 F. Supp. 2d 406, 419-420 (D. Md. 2001) (“...[I]t is only the actual development of the list or load [by the state] that is the rule making.”); *City of Rehoboth v. McKenzie*, Del. Super. Ct. No. 98C-12-023, 2000 WL 303634, *1 (Feb. 29, 2000) (Delaware Department of Natural Resources and Environmental Cabinet acknowledging that TMDLs are regulations); *Missouri Soybean Association v. Missouri Clean Water Commission*, 102 S.W. 3d 10, 24 (Mo. 2003) (distinguishing between lists of impaired streams and TMDLs, stating that “TMDLs are developed and implemented through future regulations.”); *In re Adoption of Amendments to Ne., Upper Raritan, Sussex County & Upper Delaware Water Quality Mgmt. Plans*, N.J. Super. Ct. No. A-5266-07T3, 2009 WL 2148169 *5 n. 3 (July 21, 2009) (“[T]he DEP asserts in a footnote, without any supporting explanation, that ‘a TMDL is not a rule under the strict requirements of the APA.’ We question the correctness of this assertion.”).

In addition to the cases cited above that directly address TMDLs, the supreme courts in Wisconsin and Washington have held under circumstances very similar to the development of TMDLs that rulemaking is required. *See Wisconsin Electric Power Company v. Department of Natural Resources*, 93 Wis. 2d 222, 225-226 (Wis. 1980) (striking down water quality standards developed for power plants for certain waterbodies because they constituted binding rules that had not undergone APA rulemaking); *Simpson Tacoma Kraft Company v. the Department of Ecology*, 119 Wa. 2d 640, 642-648 (Wa. 1992) (striking down dioxin standards for pulp and

paper mills discharging into certain streams because they constituted binding rules that had not undergone APA rulemaking).

Finally, several other states' environmental agencies promulgate their TMDLs as formal rules despite the absence of a judicial mandate. *See e.g.* 23 C.C.R. 3904 (California TMDL for the Garcia River); 5 CCR 1002-35:35.2 *et seq.* (Colorado TMDLs for the Gunnison and Lower Dolores River Basins); Fla. Admin. Code r. 62-304.315 (Florida TMDL for the Chipola River Basin); Or. Admin. R. 340-041-0154 (Oregon TMDL for the Upper Grande Ronde Basin); and 9 VAC 25-720-90 (Virginia TMDL for the Tennessee-Big Sandy River Basin).

After a diligent review of other states' TMDL processes, Fairfield County was unable to locate a single state court holding that TMDLs were exempted from APA rulemaking.

D. When U.S. EPA Develops a TMDL for a State's Waterbody, It Must Undertake Notice and Comment Rulemaking Procedures before the TMDL Can Be Applied.

The rule-like nature of TMDLs is reflected in the fact that U.S. EPA itself proceeds through formal rulemaking when it establishes them. 33 U.S.C. 1313(d)(2); *see Telford Borough Authority v. United States EPA*, E.D. Pa No. 2:12-CV-6548, 2013 WL 6047569, *2 (Nov. 15, 2013) ("If the EPA administrator disapproves of the state TMDL, the EPA may establish its own TMDL or revise the state TMDL *but must follow notice-and-comment rulemaking provisions of the Administrative Procedure Act ("APA") in doing so.*") (emphasis added); *see also American Farm Bureau Federation v. U.S. E.P.A.*, M.D. Pa. No. 1:11-CV-0067, 2013 WL 5177530, **38-44 (Sept. 13, 2013) (explaining U.S. EPA's rulemaking obligations when promulgating TMDLs).

The fact that U.S. EPA is obligated to promulgate TMDLs as rules is not just relevant precedent, it also bears on Ohio EPA's obligations for the separate reason that R.C. 6111.03(S)(2) states that R.C. Chapter 6111 (Ohio's water pollution control statute) "*shall* be administered, consistent with the laws of this state and federal law, in the same manner that the

Federal Water Pollution Control Act is required to be administered” (emphasis added). Thus, because U.S. EPA itself is compelled to undertake rulemaking when it must step in to establish a TMDL for a state waterbody, R.C. 6111.03(S)(2) indicates the General Assembly’s intent that Ohio EPA do the same.

E. Requiring Ohio EPA to Follow Ohio’s Rulemaking Procedures when Developing TMDLs is the Only Means Available that Protects all Impacted Parties in the Watershed and the Public, and Provides Them the Means of Obtaining Meaningful Review of the Standards Imposed by the TMDL and the Data, Assumptions, and Policy Choices that Underlie the Standards.

The Court of Appeals below lost its way when it eschewed any meaningful discussion of the rulemaking requirements under Ohio law, and became enamored by the simple fact that the TMDL for the Big Walnut Creek watershed was approved by U.S. EPA, a review that is not only perfunctory and procedural, but more importantly has no legal significance whatsoever to whether Ohio law independently requires notice and comment rulemaking before the standards set forth in the TMDL can be imposed on the affected stakeholders. *See* App. Op. at ¶ 76, where the court opined: “The phosphorus limit...comes from a properly promulgated Big Walnut Creek TMDL. Here, a properly developed and federally approved TMDL allocation was incorporated into the NPDES permit for the Tussing Road plant.” Not only is a basis for the Court of Appeals’ statement that the TMDL was “properly promulgated” notably absent, the lower court’s enchantment with U.S. EPA’s approval process was misplaced.

As noted in the statutory/regulatory framework discussion *supra*, the approval/disapproval period by U.S. EPA for all state-submitted TMDLs is statutorily constrained by time to thirty days or less, and hence constrained substantively as well. In fact, states have no obligation to provide the underlying data, assumptions, *etc.* from the TMDL development to U.S. EPA at the time of the TMDL submittal. *Id.* Thus, U.S. EPA’s procedural

approval of the Big Walnut Creek watershed TMDL was not a “promulgation” of the TMDL in any meaningful sense of the word, nor did it operate to free Ohio EPA from the independent rulemaking obligations under Ohio law that apply to all Ohio agencies that develop binding uniform standards for the regulated community.

The Court of Appeals’ view that U.S. EPA’s stamp of approval somehow provided “meaningful, substantive review” of the standards set forth in the TMDL founders not only as a matter of law, but also as a matter of fact and common sense. U.S. EPA’s procedural review and approval not only did not involve seeking public input, it did not include any scrutiny whatsoever of the validity or sufficiency of the chemical and biological water quality data, water quality models, and scientific and legal assumptions that form the underpinnings for the standards established in the TMDL. *Id.* Whether a TMDL is a silk purse or a sow’s ear is not determined by a federal rubber stamp, but rather by being fully and openly examined (and adjudicated if necessary) by those affected by it in the context of a rulemaking proceeding under the applicable state’s administrative procedures act.

Thus, the Court of Appeals erred when it held that the standards set forth in the Big Walnut Creek watershed TMDL were “properly promulgated,” and that this case was different from its holding in *Jackson County Environmental Committee v. Schregardus*, 95 Ohio App. 3d 527 (10th App. Dist. 1994). *See* App. Op. at ¶ 76. The cases are factually and legally indistinguishable. In *Jackson County*, Ohio EPA developed a guidance document containing standards for land application of paper sludge and then sought to apply them in a permit issued to Mead Corporation. 95 Ohio App. 3d at 528-529. When neighbors of the land application site challenged the permit, asserting that the “guidance” constituted binding uniform standards that were invalid because they did not go through rulemaking, the Court of Appeals reversed ERAC,

holding that the standards in the guidance document were binding rules applicable not just to Mead, and should therefore have undergone the rulemaking procedures prescribed by R.C. Chapter 119. *Id.* at 529-530 (citing *Condee v. Lindley, supra*, 12 Ohio St. 3d at 93).

There is no meaningful difference between *Jackson County* and this case. In the TMDL for Big Walnut Creek watershed, Ohio EPA developed binding standards applicable to the waterbodies in the watershed and to different classes of sources allegedly contributing to the impairment, designed to permanently eliminate the impairment. *See* J.E. 13 (TMDL) at pp. 24, 52-53, 70-71 (standards for the waterbodies, including 0.11 mg/l for phosphorus), and pp. 104-109 (loading reduction-based standards for the sources). The Agency then, without first proceeding through rulemaking, imposed the new standards in Fairfield County's discharge permit. The Court of Appeals should have followed its own precedent in *Jackson County*, reversed the ERAC, and ordered the TMDL undergo proper rulemaking procedures under R.C. Chapter 119.

Although Fairfield County had a putative opportunity to challenge the new limits before the ERAC and the Court of Appeals, the decisions below demonstrate that both tribunals were unduly influenced by the fact that U.S. EPA approved the TMDL, causing them to simply brush aside the County's overwhelming and largely unrebutted evidence in favor of a blithe reliance upon the federal approval, effectively denying the County a meaningful opportunity to be heard. *See* 2011 WL 1841913 ¶¶ 76-84 (ERAC decision); App. Op. at ¶¶ 76-81 (Court of Appeals decision).

Importantly, because the TMDL never underwent the rigors of rulemaking pursuant to the requirements of Ohio's Revised Code, none of the following mandatory analyses of the standards embodied within the TMDL occurred, nor did all, or nearly all, of the following steps

for public input occur, and thus the results of these analyses and inputs never became part of the record for review before the ERAC and the Court of Appeals:

1. Conducting “early stakeholder outreach” to allow for early feedback from the public and impacted stakeholders before drafting and developing the rules, and if comments are received, considering them when drafting and developing the rules, as required by Executive Order 2011-01K;

2. While drafting rules, evaluating them against a “Business Impact Analysis” to determine if there will be an adverse impact on businesses, and then incorporating features into the draft rules to eliminate or reduce any adverse impacts to the extent feasible, as required under R.C. 121.82;

3. Subjecting draft rules to “interested party review,” an informal notice and opportunity for input provided to interested parties on Ohio EPA’s mailing list, as required by R.C. 3745.07;

4. Submitting draft rules to the Common Sense Initiative (CSI) Office which (i) assesses the balance between the critical objectives of the proposed rules and the estimated costs of compliance on the regulated parties, (ii) assesses the transparency, consistency, predictability, and flexibility in regulatory activities required by the draft rules and whether they prioritize compliance over punishment and use plain language, and (iii) provides recommendations to the submitting agency, as required by R.C. 121.82;

5. Submitting a Rule Summary and detailed Fiscal Analysis of the draft rules to the General Assembly’s Joint Committee for Agency Rule Review (“JCARR”), along with a copy of the Business Impact Analysis, as required by R.C. 127.18, after which JCARR holds a public hearing to take testimony on the rule;

6. Completing and submitting to JCARR an Environmental Amendment/Adoption Form, a requirement applying specifically to all rules dealing with environmental protection, which form must include a summary of how organizations that represent political subdivisions and other persons affected by the draft rules were consulted, identify the contact persons who were consulted, and summarize the impacts of the draft rules, as required by R.C. 121.39;

7. Filing a copy of the Business Impact Analysis, the Rule Summary and Fiscal Analysis and the Environmental Amendment/Adoption Form with the Secretary of State, and the Legislative Service Commission, as required by R.C. 111.15 and 121.83;

8. Publishing formal notice of the proposed rules in the Register of Ohio and the Ohio EPA Weekly Review, and inviting written comment on the proposed rules, as required by R.C. 119.03 and Ohio Adm. Code 3745-49-04 and 3745-49-05; and

9. Holding a public hearing to give the public an opportunity to provide oral testimony for the record on the proposed rules, as required by R.C. 119.03.

See generally Ohio EPA, *Guide to Rule-Making*, (March 2013), <http://www.epa.ohio.gov/portals/33/rules/guide.pdf> (accessed December 28, 2013) (Ohio EPA's Fact Sheet summarizing these steps). These protections apply independent of any procedural stamp of approval provided by U.S. EPA for an Ohio EPA-submitted TMDL.

It is also important to understand that Fairfield County is but one of many parties that are affected now, or will be affected in the future, by the standards established by the TMDL. *See* J.E. 13 (TMDL) at pp. 104-107 (listing numerous point and nonpoint sources and their loading allocations). Requiring that Ohio EPA undertake proper rulemaking procedures before applying the new standards set forth in the Big Walnut Creek TMDL simultaneously protects all of the affected stakeholders in the watershed, and minimizes the risk of a series of piecemeal ERAC

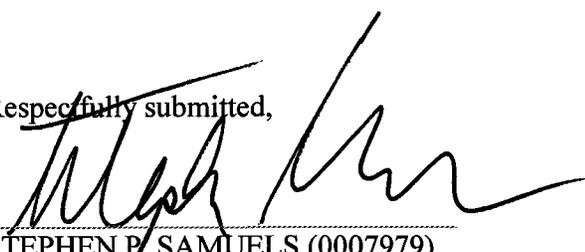
appeals as the Agency implements the TMDL over a period of many years.

Finally, because of the significant factual and policy issues involved in the development of the TMDL, and the large number of parties affected by it, the regulated community and the public must have the opportunity to present their case regarding the assumptions, data, logic, and policy choices (regarding who will be regulated and to what degree) that Ohio EPA has made in developing the standards established in the TMDL. Ohio's General Assembly has mandated through its statutory rulemaking procedures that it play an important role in the regulatory decisions of Ohio's agencies, particularly with respect to the procedural and substantive evaluations that are required when agencies develop rules to regulate Ohio's citizens. A ruling by this Court in Fairfield County's favor will place Ohio EPA back on the rightful path toward ensuring that these tenets of due process will be afforded to all stakeholders impacted by the development of the Big Walnut Creek watershed TMDL.

CONCLUSION

U.S. EPA and states across the country have determined that TMDLs impose binding standards that must be promulgated as rules pursuant to their respective administrative procedures acts. Ohio's APA requires no less. Ohio should march to the same drum as the rest of the country. This Court should reverse the decision below, and declare that the Big Walnut Creek watershed TMDL is null and void and cannot be applied until Ohio EPA undertakes proper rulemaking procedures.

Respectfully submitted,



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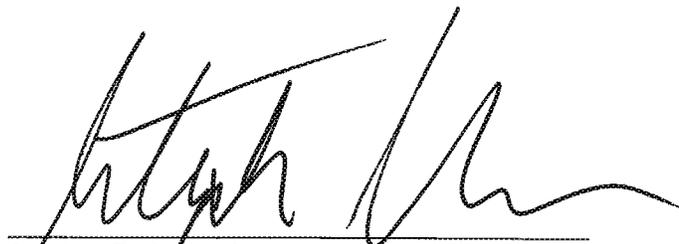
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IN THE SUPREME COURT OF OHIO

Board of Commissioners of Fairfield
County,

Plaintiff-Appellant,

v.

[Scott J. Nally], Director of
Environmental Protection,

Defendant-Appellant.

CASE NO. **13-1085**

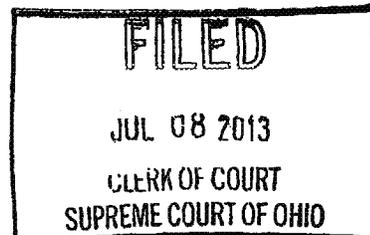
On Appeal from the Franklin
County Court of Appeals
Tenth Appellate District

Court of Appeals
Case No. 11AP-508
ERAC No. 235929

NOTICE OF APPEAL OF APPELLANT
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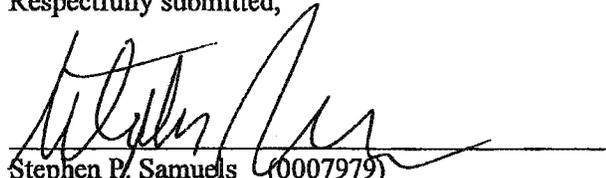


NOTICE OF APPEAL OF APPELLANT
BOARD OF COMMISSIONERS OF FAIRFIELD COUNTY

Appellant Board of Commissioners of Fairfield County hereby gives notice of appeal to the Supreme Court of Ohio from the judgment of the Franklin County Court of Appeals, Tenth Appellate District, entered in Court of Appeals Case No. 11AP-508 on May 23, 2013.

This case involves a substantial constitutional question and is one of public or great general interest.

Respectfully submitted,



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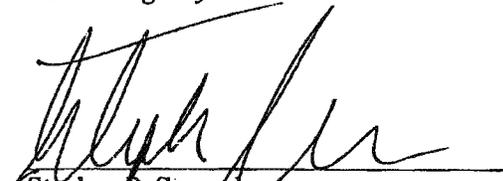
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IN THE COURT OF APPEALS OF OHIO
TENTH APPELLATE DISTRICT

Board of Commissioners of
Fairfield County, :

Appellant-Appellant/
[Cross-Appellee], :

No. 11AP-508
(ERAC No. 235929)

v. :

(REGULAR CALENDAR)

[Scott J. Nally], Director of
Environmental Protection, :

Appellee-Appellee/
[Cross-Appellant]. :

JUDGMENT ENTRY

For the reasons stated in the decision of this court rendered herein on May 23, 2013, we overrule the appellant's first, second, and third assignments of error. We also overrule the appellee's first and second cross-assignments of error. The final order of the Environmental Review Appeals Commission is affirmed. As ordered by the Environmental Review Appeals Commission, the portions of the National Pollutant Discharge Elimination System permit relating to phosphorus and total dissolved solids limits are vacated and remanded to appellee for further proceedings consistent with that decision.

CONNOR, J., BROWN and SADLER, JJ.

/s/ _____
Judge John A. Connor

Tenth District Court of Appeals

Date: 05-23-2013
Case Title: BOARD OF COMMISSIONERS OF FAIRFIELD COUNTY -VS-
JOESPH KONCELIK
Case Number: 11AP000508
Type: JEJ - JUDGMENT ENTRY

So Ordered



/s/ Judge John A. Connor

Electronically signed on 2013-May-23 page 2 of 2

Franklin County Ohio Court of Appeals Clerk of Courts- 2013 May 23 1:35 PM-11AP000508

IN THE COURT OF APPEALS OF OHIO
TENTH APPELLATE DISTRICT

Board of Commissioners of
Fairfield County, :

Appellant-Appellant/
[Cross-Appellee], :

No. 11AP-508
(ERAC No. 235929)

v. :

(REGULAR CALENDAR)

[Scott J. Nally], Director of
Environmental Protection, :

Appellee-Appellee/
[Cross-Appellant]. :

D E C I S I O N

Rendered on May 23, 2013

*Ice Miller, LLP, Stephen P. Samuels, Joseph M. Reidy and
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*Michael DeWine, Attorney General, L. Scott Helkowski and
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APPEAL from the Environmental Review Appeals Commission

CONNOR, J.

I. INTRODUCTION

{¶ 1} Appellant-appellant and cross-appellee, Board of Commissioners of Fairfield County ("Fairfield County"), appeals from an order of the Environmental Review Appeals Commission ("ERAC") in which ERAC found there was a valid factual foundation for the limits set forth in the permit issued by appellee-appellee and cross-appellant, [Scott J. Nally], Director of Environmental Protection ("the Director"). Fairfield County also appeals ERAC's decision to vacate and remand the matter to the Director for further action.

{¶ 2} The Director has filed a cross-appeal challenging the determination that the Director's actions of imposing certain limits in the permit without satisfying the technical feasibility and economic reasonableness mandates of R.C. 6111.03(J)(3) was unlawful. The Director also challenges ERAC's consideration of evidence obtained from certain data collectors, claiming the data fails to meet the requirements of the credible data rule.

{¶ 3} Because the order is supported by reliable, probative, and substantial evidence and in accordance with law, we affirm.

II. REGULATORY FRAMEWORK

{¶ 4} This case involves the imposition of limitations placed in the renewal of a National Pollutant Discharge Elimination System ("NPDES") permit issued to Fairfield County for its wastewater treatment plant ("the Tussing Road plant" or "plant"), located on Blacklick Creek off Tussing Road in Pickerington, Ohio. In Ohio, the discharge of sewage, industrial waste, or other waste into the waters of the state, or the placement of sewage, industrial waste, or other waste in a location where it enters the waters of the state is prohibited without a permit issued by the Director authorizing said discharge. *See* R.C. 6111.04 (acts of pollution prohibited; exceptions). Permits that authorize discharge to waters of the state are known as NPDES permits.

{¶ 5} The NPDES permit program arises from Section 402 of the Federal Water Pollution Control Act. 33 U.S.C. 1342. The Federal Water Pollution Control Act is also known as the Clean Water Act ("CWA"). The CWA, 33 U.S.C. 1251-1387, uses two approaches to control water pollution: (1) technology-based regulations; and (2) water quality standards. *Arcadia v. United States EPA*, 265 F.Supp.2d 1142, 1143 (2003). "Technology-based regulations seek to reduce pollution by requiring a discharger to effectuate equipment or process changes, without reference to the effect on the receiving water; water quality standards fix the permissible level of pollution in a specific body of water regardless of the source of pollution." *Id.* at 1143-44. The NPDES permit program is a means of implementing both approaches. *Id.* at 1144.

{¶ 6} The objective of the CWA "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." *See* 33 U.S.C. 1251 et seq. States may apply for delegated authority to implement NPDES permitting in their state and if the United States Environmental Protection Agency ("U.S. EPA") approves, the state has delegated authority over the program. In Ohio, the Ohio Environmental Protection

Agency ("Ohio EPA") has been delegated the authority to issue NPDES permits for the discharge of pollutants into Ohio waters.

{¶ 7} "Permits cannot control all sources of pollution. They are aimed only at pollution coming from a 'point source,' " such as a waste water treatment plant. *Sierra Club v. Meiburg*, 296 F.3d 1021, 1024 (11th Cir.2002), quoting 33 U.S.C. 1362(14). Pollution also comes from non-point sources, such as runoff from farmlands. *Id.* at 1025.

{¶ 8} The effluent (or discharge) limits set forth in NPDES permits are established via regulatory controls. Pursuant to Ohio Adm.Code 2745-33-05, the director shall determine and specify in the permit the maximum levels of pollutants that may be discharged to ensure compliance with, inter alia, applicable water quality standards and applicable effluent limitations. Water quality-based limits are included in NPDES permits if technology-based limits are not sufficient to achieve or maintain compliance with water quality standards. Ohio Adm.Code 3745-33-05(A).

{¶ 9} Water quality standards have two distinct elements: (1) designated uses; and (2) numerical or narrative criteria fashioned to protect and measure the attainment of the uses. Ohio Adm.Code 3745-1-07(A). Furthermore, each waterbody in Ohio is assigned one or more aquatic habitat use designations and may be assigned one or more water supply use designations and/or one recreational use designation. Ohio Adm.Code 3745-1-07(A)(1).

{¶ 10} The Ohio EPA is responsible for monitoring the waters of the state. If a waterbody is not meeting water quality standards, and thus it is considered "in nonattainment," and, based upon the current pollution controls, it is not expected to "attain" the applicable water quality standards, it is placed on a list of impaired waterways, pursuant to Section 303(d) of the CWA, and submitted to the U.S. EPA. The approved list is then used by the Ohio EPA to identify and rank impaired waterways and to prepare a Total Maximum Daily Load ("TMDL") assessment.

{¶ 11} "TMDLs must be established for every waterbody within the state for which ordinary technology-based point-source limits will not do enough to achieve the necessary level of water quality." *Sierra Club* at 1025, citing 33 U.S.C. 1313(d)(1)(A) and (C). A TMDL is "a calculation of the maximum quantity of a given pollutant that may be added to a waterbody from all sources without exceeding the applicable water quality standard for that pollutant." Mark A. Ryan, *The Clean Water Act Handbook*, Chapter 10, at 205

(2d Ed.2003). *See also Sierra Club* at 1025, citing 33 U.S.C. 1313(d)(1)(C) ("A TMDL is a specification of the maximum amount of a particular pollutant that can pass through a waterbody each day without water quality standards being violated"), and Ohio Adm.Code 3745-2-02(B)(67) ("the sum of the existing and/or projected point source, nonpoint source, and background loads for a pollutant to a specified watershed, water body, or water body segment. A TMDL sets and allocates the maximum amount of a pollutant that may be introduced into the water and still ensures attainment and maintenance of water quality standards").

{¶ 12} "[E]ach TMDL represents a goal that may be implemented by adjusting pollutant discharge requirements in individual NPDES permits or establishing nonpoint source controls." *Arcadia* at 1144. A TMDL serves as the goal for the level of the pollutant at issue in the waterbody and allocates the total "load" (the amount of the pollutant introduced into the water) specified in that TMDL among contributing point sources as well as non-point sources. *Sierra Club* at 1025. "The theory is that individual-discharge permits will be adjusted and other measures taken so that the sum of that pollutant in the waterbody is reduced to the level specified by the TMDL." *Id.* at 1025.

{¶ 13} To determine whether a waterway is attaining its designated use, the Ohio EPA has developed biocriteria to assess the waterway. These include the Invertebrate Community Index ("ICI"), which measures aquatic macroinvertebrates such as worms and insects, and the Index of Biotic Integrity ("IBI") and the Modified Index of well-being ("MIwb"), which assess fish communities. If the biocriteria results demonstrate that a waterbody is meeting or exceeding the numeric standards for its designated use, it is considered to be "in attainment."

III. FACTUAL AND PROCEDURAL HISTORY

{¶ 14} In 2000, the Ohio EPA conducted a study of the Big Walnut Creek Basin, which also included a stream survey of Blacklick Creek.¹ As part of the survey, it collected biological and chemical data from upstream and downstream of the Tussing Road plant. Based on the results of the survey, the Ohio EPA concluded the Tussing Road plant was contributing to organic and nutrient enrichment in Blacklick Creek. Ohio EPA determined there was a nutrient enrichment defect downstream from the plant, based upon the findings regarding the macroinvertebrate community. Specifically, the survey

¹ Blacklick Creek is located in the Big Walnut Creek Basin.

demonstrated that the ICI score (which measures macroinvertebrate communities) declined ten points after passing the Tussing Road plant's discharge point, going from 48 at river mile ("RM") 11.3 to 38 at RM 11.0, just past the plant's outfall. The survey report stated that the decline indicated mild organic and/or nutrient enrichment due to the discharge from the plant. The survey also indicated impairment of the MIwb.

{¶ 15} After the stream survey of Blacklick Creek in 2000, the Tussing Road plant's NPDES permit was modified, effective July 1, 2003. The new permit required monitoring for phosphorus and total dissolved solids ("TDS") at the final outfall location. It also included language stating the permit may be reopened and modified upon completion of any TMDL study as required by Section 303(d) of the CWA.

{¶ 16} During 2005, Fairfield County completed a \$6 million improvement to the Tussing Road plant. The improvements increased the volume of wastewater being treated from 2 to 3 million gallons per day.

{¶ 17} On August 19, 2005, the Ohio EPA issued the "Total Maximum Daily Loads for the Big Walnut Creek Watershed" report ("Big Walnut Creek TMDL report") and submitted it to the U.S. EPA. The U.S. EPA approved the report in September 2005. The Big Walnut Creek TMDL report found that among the primary causes of impairment in the Big Walnut Creek Watershed was nutrient enrichment. To address the nutrient enrichment issues in the Big Walnut Creek Watershed, the Big Walnut Creek TMDL report set forth allocations for various sources of phosphorus (including discharge locations) and the required reductions. It also established a specific total phosphorus limit of .5 mg/l for the Tussing Road plant.

{¶ 18} Subsequently, Fairfield County submitted an application to renew its NPDES permit for the Tussing Road plant on Blacklick Creek. The Ohio EPA publicly noticed a draft NPDES permit. Fairfield County submitted comments, to which the Ohio EPA issued a written response. The draft permit proposed adding monthly concentration and loading limits for total phosphorus and an effluent limitation for TDS.

{¶ 19} On June 30, 2006, the Ohio EPA issued a final renewal NPDES permit to Fairfield County for the Tussing Road plant. This permit included concentration and loading limits for total phosphorus consistent with those set forth in the Big Walnut Creek TMDL report, as well as limits for TDS, which were included after the monitoring referenced in the 2003 permit modification.

{¶ 20} On July 27, 2006, Fairfield County filed a notice of appeal with ERAC setting forth multiple assignments of error and arguing the discharge limitations in the permit regarding phosphorus and TDS were unlawful and unreasonable. A hearing was held beginning February 9 and ending February 13, 2009. Multiple witnesses, including expert witnesses, were presented by both Fairfield County and the Director. The following testimony is most relevant to these appeals.

{¶ 21} Matthew Fancher ("Fancher") testified he wrote the portion of the Big Walnut Creek TMDL report pertaining to Blacklick Creek that was eventually used, along with other documents, as a basis for the .5 mg/l phosphorus limit included in the NPDES permit. Fancher testified he also prepared an interoffice communication in April 2006 for Eric Nygaard in the permit compliance section, explaining how he arrived at the .5 mg/l phosphorus limit for the Tussing Road plant.

{¶ 22} Fancher testified some of the information in the April 2006 memorandum came from the technical support document² that went along with the Big Walnut Creek TMDL report. In the memorandum, Fancher noted: (1) based upon the technical support document, there was a ten-point difference in the ICI scores upstream and downstream of the Tussing Road plant; (2) the ICI score decline indicated mild organic and/or nutrient enrichment from the Tussing Road plant; (3) the larger diurnal fluctuation (in dissolved oxygen) recorded at the downstream site was characteristic of excessive algae production associated with nutrient enrichment; (4) the annual total phosphorus load from the Tussing Road plant increased every year since 2001; and (5) a general concern that the increased loading from the plant had exacerbated the enriched condition in Blacklick Creek, which could cause deterioration in the future and cause the waterbody to be in nonattainment. Fancher further testified his knowledge of the stream was based upon data presented to him and that he never personally visited Blacklick Creek.

{¶ 23} Fancher used the "simple model" to calculate the loads for Blacklick Creek in the Big Walnut Creek TMDL report. He calculated the phosphorus loading for Blacklick Creek by using a "target value" of .11 mg/l, based upon the fact that said value was contained in the "Association Between Nutrients, Habitat, and the Aquatic Biota in Ohio Rivers and Streams" report (Ohio EPA, 1999) ("associations report"), which was co-

² The technical support document is titled "Biological and Water Quality Study of the Big Walnut Creek Basin 2000."

authored by several Ohio EPA employees. Fancher initially performed a wasteload allocation ("WLA") for point source dischargers using a 1.0 mg/l phosphorus limit. Under this calculation, non-point sources would be required to reduce their phosphorus discharge by 90 percent in order to meet the goal. Because he believed those numbers "didn't add up" and failed to create an allocation scenario that was balanced, he next performed the analysis using a .5 mg/l phosphorus limit as a technology-based standard, based upon a recommendation from an Ohio EPA colleague. Fancher testified that number reduced the percent reduction necessary but also reduced the load that point sources (such as the plant) could discharge.

{¶ 24} John Owen ("Owen") of the Ohio EPA testified he was responsible for developing the permit limits. In assigning the limits for phosphorus in the NPDES permit, Owen testified he determined the limits based upon the limit set forth in the Big Walnut Creek TMDL report for the Tussing Road plant. Owen testified that "[a]fter reviewing that document, we determined that the appropriate numerical limit was determined, and it was incorporated." (Tr. Vol. III, 137.) As to the limits for TDS, Owen testified he determined those limits using a modeling procedure codified in the Ohio Administrative Code in which a spreadsheet is used to calculate the limits based upon the input of certain data. TDS were calculated at 1,646 mg/l. Owen did not conduct an independent analysis to determine what the phosphorus and TDS limits should be or if they were necessary.

{¶ 25} Rhonda Mendel ("Ms. Mendel") testified she is employed by EnviroScience and does macroinvertebrate evaluations. In 2007, EnviroScience did a stream sampling of Blacklick Creek. As part of that stream sampling, she compiled ICI scores and found a score of 34 at the upstream site and a score of 36 at the downstream site. Both sites were in attainment. In comparing those scores with the scores from the Ohio EPA's 2000 sampling, Ms. Mendel testified that the downstream score was comparable, while the upstream score was lower than the Ohio EPA's score. Based upon the two downstream scores, Ms. Mendel testified the measured biological community had not changed much in the downstream area.

{¶ 26} Ms. Mendel also analyzed other biological attributes in the stream, including pollution-sensitive (also known as "pollution-intolerant") species. In doing so, she looked at organisms known as Ephemeroptera, Plecoptera, and Trichoptera ("EPT

taxa"), which are pollution-sensitive organisms. She testified there are likely to be more pollution-intolerant species in waterbodies that have fewer influences or that have a more unaffected condition (e.g., waterbodies that are more "pristine"). Thus, as more factors influence the stream, the number of EPT taxa organisms, in theory, decreases.

{¶ 27} Using the data from the 2000 survey, Ms. Mendel testified the percentage of EPT taxa in the upstream sample was 21 percent, while the percentage of EPT taxa in the downstream sample was 28.3 percent. Thus, she concluded the EPT taxa percentages downstream were higher than the percentages upstream. She further testified that if there was something going on in the stream that was impacting the communities downstream of the Tussing Road plant, she would expect to see the reverse effect—more EPT taxa at the upstream site, and fewer EPT taxa at the downstream site. However, that is not what was discovered here. Furthermore, in collecting data for EnviroScience's 2007 survey, she found the EPT taxa percentage at the upstream site to be 47.9, while the downstream site was 58.1. Ms. Medel opined that the ICI upstream score of 48 from Ohio EPA's 2000 survey seemed to be a "data anomaly" or an "outlier." (Tr. Vol. I, 216.) With respect to the discharges of TDS, Ms. Mendel testified that effluent from the Tussing Road plant was not toxic to aquatic organisms and was not having an adverse effect on the stream.

{¶ 28} Michael J. Bolton ("Bolton"), an Environmental Specialist 2 at the Ohio EPA, testified regarding the results of the 2000 stream survey, which were contained in the technical support document. Based upon the results of the survey, Bolton testified there was a nutrient enrichment defect downstream from the Tussing Road plant, based upon the findings regarding the macroinvertebrate community.

{¶ 29} For example, Bolton testified that the total sensitive taxa and the EPT taxa numbers decreased from 18 and 13, respectively, at RM 11.3, to 14 and 11 at RM 11.0. And at RM 8.90, the total sensitive taxa stayed at 14, while the EPT taxa decreased to 9. Bolton further testified there were typically higher taxa numbers in higher quality streams, so if the numbers were declining, it could indicate an impacted stream. Bolton also disagreed with the opinion of some of the Fairfield County witnesses who believed the ICI score of 48 at RM 11.3 was an "outlier," stating there were other ICI scores which were similar, such as an upstream site with a score of 44 and a downstream site with a score of 42.

{¶ 30} Daniel V. Markowitz, Ph.D. ("Markowitz"), an employee of Malcolm Pirnie, Incorporated, an environmental consulting firm, and an expert in aquatic ecology and aquatic biology, disagreed with the conclusions reached by Fancher in his memorandum. Markowitz testified that the ICI and dissolved oxygen data used by Fancher was not sufficient to establish nutrient enrichment downstream of the Tussing Road plant. Markowitz also testified the evidence demonstrating the dissolved oxygen diurnal swing was not sufficient to establish that the fluctuation was being caused by the discharge of phosphorus from the plant. Markowitz did not believe Fancher's reliance upon only two days of data from two points was enough data to properly conclude that the phosphorus was having an adverse impact upon Blacklick Creek.

{¶ 31} Furthermore, Markowitz opined that Fancher's conclusion—that an increase in discharge from the plant from 2 million gallons to 3 million gallons would interfere with the maintenance of water quality standards—was not supported for several reasons: (1) there had already been an increase in discharge since the Ohio EPA's study was conducted and Blacklick Creek is still in attainment downstream of the plant; (2) there is no nuisance growth of algae either upstream or downstream of the plant; and (3) there are no characteristics of nonattainment related to an increased phosphorus load. Markowitz concluded to a reasonable degree of scientific certainty that the Tussing Road plant did not have a reasonable potential to cause nonattainment of water quality standards in Blacklick Creek if the flow increased to 3 million gallons per day.

{¶ 32} In addition, Markowitz testified that in his opinion, the TDS were not having an adverse affect on aquatic life, given that the fish and bug standards downstream of the plant were within the warm water habitat standard. Thus, Markowitz concluded that the TDS were not affecting attainment of the overall biological community.

{¶ 33} Robert Miltner ("Miltner"), an environmental specialist in the ecological assessment section of the Ohio EPA, testified he participated in the 2000 survey involving Blacklick Creek by collecting fish samples. Miltner also wrote the biological assessment of fish communities and physical habitat for aquatic life sections of the technical support document. Miltner described the technical support document as a report written after the survey which analyzed and interpreted the data collected from the survey. Miltner testified the technical support document is used to assist in permit renewal decisions or

other agency decisions. The information from the technical support doctrine is also used in the TMDL.

{¶ 34} Michael J. Mendel, Ph.D. ("Dr. Mendel"), a professor of environmental science, a special projects consultant for EnviroScience, and an expert in macroinvertebrate ecology, aquatic biology, and biological statistics, testified the upstream and downstream ICI data collected by the Ohio EPA in 2000 was not sufficiently credible to be used as a basis for determining the phosphorus permit limits for the Tussing Road plant. He cited the following three reasons for his opinion: (1) the sampling methodology used by the Ohio EPA to develop the ICI score has "within site variability;" (2) the Ohio EPA's subsampling procedure (as opposed to identifying and processing everything in the sample) introduces sampling error; and (3) there are inconsistencies with the ICI data in comparison with other data.

{¶ 35} James R. Krejsa ("Krejsa"), vice president and director of ecological services at EnviroScience, was admitted as an expert in aquatic biology, aquatic ecology, biological survey, impact evaluation, biological criteria, and water quality. Krejsa analyzed the fish data collected by the Ohio EPA in 1996 and 2000. This included an analysis of the IBI and MIwb scores. Krejsa testified the IBI scores from both studies increased downstream of the Tussing Road plant.

{¶ 36} Krejsa analyzed the macroinvertebrate studies from the surveys. With respect to the ten-point variation in the upstream and downstream ICI scores from the Ohio EPA's 2000 survey, Krejsa testified the variation could be attributed to natural variability. EnviroScience also conducted its own sampling survey in 2007 but used sites different from those used by the Ohio EPA, with the intention of eliminating other environmental stressors (e.g., runoff from a bridge). The average ICI score from all three studies was determined to be 39.25. Krejsa testified the purpose of determining the average score was to determine whether the upstream sampling sites were representative (i.e., not an anomaly), since natural variability needed to be taken into consideration.

{¶ 37} With respect to the dissolved oxygen data referenced in Fancher's memorandum (which he obtained from the technical support document), Krejsa testified the Ohio EPA failed to follow proper protocols in obtaining representative data for the analysis. Because only two days worth of data (rather than the required seven days of data) were obtained, Krejsa testified the data was not sufficient to establish that it was the

phosphorus discharge from the Tussing Road plant that was causing greater diurnal fluctuations at RM 10.2, in comparison to RM 11.3.

{¶ 38} Krejsa also testified that pursuant to the data, Blacklick Creek is in attainment. Furthermore, any variability in the data did not necessarily mean there was a direct connection or a cause-and-effect relationship between the variability and TDS and/or phosphorus. For example, Krejsa testified there were a lot of different factors which could constitute environmental stressors, such as the location of the golf course on top of the area where the downstream sampling sites are located. These factors, rather than just the phosphorus discharge, could contribute to variability. Kresja also agreed that fish are more sensitive than macroinvertebrates and he testified the fish data actually increased downstream of the discharge, rather than decreased, and that such a finding was not necessarily indicative of phosphorus. Krejsa further opined there was not enough scientific data to support the appropriateness or necessity of imposing phosphorus or TDS limits for the Tussing Road plant for the purposes of attaining or maintaining water quality in Blacklick Creek.

{¶ 39} David Frank ("Frank"), an employee of ARCADIS and the engineer who designed the Tussing Road plant expansion, testified it was technically feasible to meet the total phosphorus limit of .5 mg/l. However, he testified the cost to do so would be more than 5 million. Frank further testified it was not technically feasible to meet the TDS limit of 1,646 mg/l.

{¶ 40} ERAC issued a decision on May 12, 2011, finding there was a valid factual foundation for imposing the phosphorus permit limit. ERAC further found the Director had a valid factual foundation for the limit imposed for TDS as well. Finally, ERAC held the Director violated R.C. 6111.03(J) by failing to consider the technical feasibility and economic reasonableness of imposing the TDS and phosphorus limits and, as a result, ERAC ordered that the portions of the permit relating to phosphorus and TDS limits be vacated and remanded to the Director for further proceedings.

{¶ 41} On June 8, 2011, Fairfield County filed a notice of appeal in this court. The Director filed a notice of cross-appeal on June 16, 2011.

IV. ASSIGNMENTS OF ERROR AND CROSS-ASSIGNMENTS OF ERROR

{¶ 42} Fairfield County appeals ERAC's order and asserts the following assignments of error:

1. THE COMMISSION'S RULING THAT THE DIRECTOR HAD A VALID FACTUAL FOUNDATION FOR THE PHOSPHORUS EFFLUENT LIMITS IN FAIRFIELD COUNTY'S NPDES PERMIT LIMIT IS NOT SUPPORTED BY RELIABLE, PROBATIVE AND SUBSTANTIAL EVIDENCE, AND IS NOT IN ACCORDANCE WITH LAW.

2. THE COMMISSION'S RULING THAT THE DIRECTOR HAD A VALID FACTUAL FOUNDATION FOR THE TOTAL DISSOLVED SOLIDS EFFLUENT LIMITS IN FAIRFIELD COUNTY'S NPDES PERMIT LIMIT IS NOT SUPPORTED BY RELIABLE, PROBATIVE AND SUBSTANTIAL EVIDENCE, AND IS NOT IN ACCORDANCE WITH LAW.

3. THE COMMISSION'S MERE RECITATION OF EVIDENCE, RATHER THAN MAKING FINDINGS OF FACT, AND SPECIFICALLY, ITS FAILURE TO FIND THAT THE TOTAL DISSOLVED SOLIDS AND PHOSPHORUS EFFLUENT LIMITATIONS WERE, RESPECTIVELY, TECHNICALLY INFEASIBLE AND ECONOMICALLY UNREASONABLE, IS NOT IN ACCORDANCE WITH LAW.

{¶ 43} Additionally, the Director has filed a cross-appeal, in which he asserts the following two assignments of error for our review:

1. The Environmental Review Appeals Commission improperly interpreted the Director's obligations under R.C. 6111.03(J)(3) as requiring the Director to evaluate the economic reasonableness and technical feasibility of a pollutant limitation even where the Director is obligated, pursuant to the Clean Water Act, to impose the specified pollutant limitation.

2. The Environmental Review Appeals Commission improperly considered biological data submitted by Fairfield County that was not considered credible pursuant to the requirements of Ohio Administrative Code Section 3745-4-01.

V. STANDARD OF REVIEW

{¶ 44} On appeal, this court must determine whether ERAC's order as to the lawfulness and reasonableness of the Director's action is supported by reliable, probative, and substantial evidence and in accordance with law. *Salem v. Koncelik*, 164 Ohio App.3d 597, 2005-Ohio-5537, ¶ 8 (10th Dist.), citing *Red Hill Farm Trust v. Schregardus*, 102 Ohio App.3d 90, 95 (10th Dist.1995); R.C. 3745.06. The Supreme Court of Ohio has defined reliable, probative, and substantial evidence as follows:

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- (1) "Reliable" evidence is dependable; that is, it can be confidently trusted. In order to be reliable, there must be a reasonable probability that the evidence is true.
- (2) "Probative" evidence is evidence that tends to prove the issue in question; it must be relevant in determining the issue.
- (3) "Substantial" evidence is evidence with some weight; it must have importance and value

(Footnotes omitted.) *Our Place, Inc. v. Ohio Liquor Control Comm.*, 63 Ohio St.3d 570, 571 (1992).

{¶ 45} ERAC does not stand in the place of the Director on appeal and is not entitled to substitute its judgment for that of the Director. *Citizens Commt. to Preserve Lake Logan v. Williams*, 56 Ohio App.2d 61, 69-70 (10th Dist.1977). ERAC is limited to a determination of whether the action taken by the Director is unlawful or unreasonable. *Id.* at 69. "Unlawful" means "not in accordance with law." *Id.* at 70. "Unreasonable" means "that which is not in accordance with reason, or that which has no factual foundation." *Id.* "The reasonableness standard requires * * * ERAC to consider whether the actions it reviews have a valid factual foundation." *Washington Environmental Servs. v. Morrow Cty. Dist. Bd. of Health*, 10th Dist. No. 09AP-920, 2010-Ohio-2322, ¶ 24.

{¶ 46} If the evidence demonstrates the Director's action is reasonable and lawful (i.e., the evidence reasonably supports the Director's action), ERAC must affirm the Director, even though it may have taken a different action. *Citizens Commt. to Preserve Lake Logan* at 69. Additionally, if the evidence demonstrates it is reasonably debatable as to whether or not the permit should be granted, ERAC must affirm the Director. *Id.* at 69-70. However, if ERAC properly determines the Director's action is unreasonable or unlawful, it can vacate or modify the action and implement the appropriate action as supported by the evidence. *Id.* at 70.

{¶ 47} "An appellate court must affirm an ERAC order if it 'is supported by reliable, probative, and substantial evidence and is in accordance with law.'" *Helms v. Koncelik*, 187 Ohio App.3d 231, 2010-Ohio-1782, ¶ 20 (10th Dist.), quoting R.C. 3745.06. In deciding whether an ERAC order is supported by reliable, probative, and substantial evidence, an appellate court must weigh and evaluate the credibility of the evidence. *Helms* at ¶ 20, citing *Parents Protecting Children v. Korleski*, 10th Dist. No. 09AP-48, 2009-Ohio-4549, ¶ 10. Appellate courts "must recognize that administrative bodies consist of members with special expertise, and we must respect that expertise." *Helms* at

¶ 20. Therefore, we give due deference to ERAC's resolution of evidentiary conflicts. *Id.*, citing *Parents Protecting Children* at ¶ 10.

VI. FIRST ASSIGNMENT OF ERROR—IS THERE A VALID FACTUAL FOUNDATION FOR THE PHOSPHORUS LIMITS IMPOSED IN THE PERMIT?

A. Fairfield County's Arguments

{¶ 48} In its first assignment of error, Fairfield County submits ERAC's determination that the Director has a valid, factual foundation for imposing the phosphorus limits set forth in Fairfield County's NPDES permit is not supported by reliable, probative, and substantial evidence and is not in accordance with law. Specifically, Fairfield County argues that the .5 mg/l phosphorus limit imposed in the permit was arbitrarily established. Fairfield County objects because an Ohio EPA employee with virtually no experience in the pertinent disciplines established the limit for the Tussing Road plant allocation within the TMDL for Big Walnut Creek Watershed, which includes Blacklick Creek. Using the limit set forth in the Big Walnut Creek TMDL report for the Tussing Road plant, another Ohio EPA employee then imposed that phosphorus limit in the NPDES permit for the Tussing Road plant.

{¶ 49} Fairfield County argues that the Big Walnut Creek TMDL does not require the Director to impose the .5 mg/l phosphorus limit in the NPDES permit. Fairfield County asserts ERAC erred in finding that the mere presence of the .5 mg/l limitation in the TMDL constitutes reliable, probative, and substantial evidence that it is a reasonable and lawful limitation for the NPDES permit. Under this interpretation, Fairfield County contends ERAC has, in essence, improperly determined that if a proposed permit limit appears in an approved TMDL, a discharger cannot challenge the limit when it is imposed in the discharger's NPDES permit.

{¶ 50} Fairfield County also argues there is no "direct correlation" between the limitation imposed in the permit and the attainment of the biocriteria standards applicable to Blacklick Creek, given that the plant has been discharging phosphorus at a higher level than set forth in the TMDL, but without an adverse affect on the biota in Blacklick Creek, since it is still in attainment. Fairfield County argues that a direct correlation is required pursuant to *Gen. Elec. Lighting v. Koncelik*, 10th Dist. No. 05AP-310, 2006-Ohio-1655.

{¶ 51} Additionally, because there is not a numerical water quality standard for phosphorus from which Ohio EPA derived the permit limit, Fairfield County submits the .5 mg/l phosphorus limitation is unlawful because it is based upon an unpromulgated "target value" for phosphorus that simply appears in the associations report. Fairfield County argues the data in the association report does not serve as a valid factual foundation for the phosphorus limit, as it does not establish a cause-and-effect relationship. Fairfield County argues it is unlawful for Ohio EPA to regulate on the basis of unpromulgated standards.

{¶ 52} Finally, Fairfield County argues the mere presence of a draft allocation in a TMDL does not ipso facto create a valid factual foundation for a permit limit and that whether or not there is a valid, factual foundation for the permit limit must be determined based upon all of the evidence presented; to hold otherwise constitutes a denial of due process because it makes the permit limits functionally unreviewable. Because the public notice, comment, and review process for TMDLs is a federal process, Fairfield County argues there is no procedure for meaningful review at the time of submission to the U.S. EPA and, therefore, parties must have the right to pursue meaningful review at the time the NPDES permits are issued if those permits contain effluent limits based on the TMDL. Fairfield County submits ERAC's decision has insulated the Ohio EPA's actions from administrative review and made it impossible for point source dischargers to challenge limitations in NPDES permits.

B. The Director's Response

{¶ 53} The Director, on the other hand, argues that the .5 mg/l phosphorus limitation included in the Tussing Road plant permit was consistent with the Big Walnut Creek TMDL report and that as a publicly noticed and federally approved document, the TMDL should be considered reliable, probative, and substantial evidence upon which the Director may base his decision. Because the TMDL is based upon data gathered directly from Big Walnut Creek, the Director argues that fact alone should be enough to demonstrate a significant, foreseeable relationship between the reduction in phosphorus and a reduction in nutrient enrichment in Big Walnut Creek Watershed.

{¶ 54} The Director submits he was required to establish a pollutant limitation consistent with the federally approved Big Walnut Creek TMDL, pursuant to 40 C.F.R. 122.44(d)(1)(vii)(B). One available option that would fulfill the consistency requirement

is to take the .5 mg/l phosphorus limit in the Tussing Road plant TMDL allocation and impose it in the NPDES permit. The Director argues this decision was an exercise of his independent judgment that was reasonable and supported by law. Because the .5 mg/l phosphorus limit for the Tussing Road plant was based upon actual studies of the Big Walnut Creek Watershed and incorporated into its federally approved TMDL, the Director argues this phosphorus limitation is supported by reliable, probative, and substantive evidence.

{¶ 55} The Director also contends this appeal is not an appropriate forum in which to challenge the facts underlying the Big Walnut Creek TMDL, claiming any challenge would be governed by the Administrative Procedure Act. The Director points out that Fairfield County has never challenged the U.S. EPA's approval of the TMDL limits and argues it is not a denial of due process to require such a challenge to be governed by the Administrative Procedure Act. The Director asserts courts cannot allow the facts underlying a TMDL to be collaterally attacked via individual NPDES permit challenges. Instead, the Director submits the appropriate way to challenge the facts underlying the TMDL is through a challenge to the TMDL itself.

{¶ 56} The Director further argues the evidence relied upon in developing the Big Walnut Creek TMDL report was reliable, probative, and substantial. Big Walnut Creek Watershed was placed on the Ohio EPA's Section 303(d) list because it failed to meet water quality standards and was in need of restoration. Thus, a TMDL plan was required. During the process of developing the TMDL, the Director contends a direct correlation was found between reduction in point-source discharges of phosphorus and bringing the watershed into attainment, as well as a reasonable association between nutrient enrichment and discharges from the Tussing Road plant.

{¶ 57} Contrary to Fairfield County's assertions, the Director argues utilization of the associations report as a guidance document was proper. The Director contends the use of guidance documents, such as the associations report, does not rise to the level of regulating on the basis of an unpromulgated standard.³ Instead, the Director submits the phosphorus limitation included in the Tussing Road plant permit comes from the

³ Notably, the associations report states that it is a technical bulletin and that it does not represent the EPA policy.

properly promulgated Big Walnut Creek TMDL. He argues it is not an unpromulgated guideline.

{¶ 58} Finally, the Director argues that in developing the TMDL for the Big Walnut Creek Watershed, Ohio EPA identified the sources of phosphorus for the stream and the amount the sources were contributing and then determined the loading capacity of the stream, leaving a margin of safety. Thus, the Director submits the limit was not arbitrarily derived and the evaluation considered point sources, including the Tussing Road plant, as well as non-point sources, such as agricultural land and residential sources. Based upon that evaluation, and after reviewing several scenarios involving both point and non-point sources, limits were imposed. The Director contends the Ohio EPA's analysis was far from speculative.

C. Analysis

{¶ 59} In general, Fairfield County's arguments asserting the Director lacked a valid factual foundation for the phosphorus limit set forth in the Tussing Road permit can be simplified and described as follows: (1) there was no direct correlation between the phosphorus limitation set forth in the Tussing Road plant permit and the attainment of the biocriteria standards applicable to Blacklick Creek, particularly since the portion of the stream impacted by the Tussing Road plant is in attainment, despite the fact the plant has been discharging phosphorus at a higher level than set forth in the NPDES permit; (2) the Ohio EPA was not required to include a .5 mg/l phosphorus limit in the permit simply because it appears in the TMDL because its presence in the TMDL does not constitute sufficient or probative evidence of its reasonableness or lawfulness; (3) the .5 mg/l phosphorus limit is unlawfully based upon an unpromulgated "target value" that appears in the associations report, which does not provide a valid factual foundation for the limit; (4) use of the associations report constitutes regulating on the basis of unpromulgated standards; and (5) imposition of the phosphorus limit from the TMDL fails to provide Fairfield County with meaningful review.

1. Direct Correlation

{¶ 60} Fairfield County argues there is no "direct correlation" between the phosphorus limits imposed in the NPDES permit and the attainment of the biocriteria standards applicable to Blacklick Creek. We disagree.

{¶ 61} In *General Elec. Lighting*, we found the crux of the "direct correlation" requirement in that case to be that power input alone, without consideration of any other factors that affect emissions, had to have a significant, foreseeable relationship to emissions in order for the limitation on power input to be based on a valid factual foundation. *Id.* at ¶ 39. Expert testimony and data demonstrated that different operational restrictions would not necessarily increase or decrease emissions and that power input alone, without consideration of other factors affecting emissions, did not have a significant relationship to emission controls. Thus, there was no direct correlation between the emission controls and the operational restrictions sought to be imposed by the Ohio EPA.

{¶ 62} As that theory applies to this case, Fairfield County argues the Ohio EPA failed to prove that the phosphorus limits in the NPDES permit were based on a significant, foreseeable, causal relationship between those limits and the attainment of biocriteria standards for Blacklick Creek. However, we believe there is evidence demonstrating otherwise.

{¶ 63} To review, a TMDL sets forth "the sum of the existing and/or projected point source, nonpoint source, and background loads for a pollutant to a specified watershed, water body, or water body segment." Ohio Adm.Code 3745-2-02. Furthermore, a TMDL "sets and allocates the maximum amount of a pollutant that may be introduced into the water and still ensures attainment and maintenance of water quality standards." Ohio Adm.Code 3745-2-02. TMDLs are established and implemented through a TMDL implementation plan, which addresses attainment of applicable water quality standards for each pollutant for which a TMDL is established. Ohio Adm.Code 3745-2-12.

{¶ 64} Here, the Big Walnut Creek Watershed had been placed on the Section 303(d) list as an impaired waterway because it was not meeting water quality standards. Its placement on the list required that a TMDL be performed. As part of the development of the Big Walnut Creek TMDL, the Director initiated an analysis of the watershed, including Blacklick Creek, and eventually determined there was a reasonable association between nutrient enrichment and the discharges from the Tussing Road plant, and that the problem could be addressed by limiting the phosphorus discharges from the plant. During the development of the TMDL, it was determined there was a direct correlation

between a reduction in point-source discharges of phosphorus and reaching attainment. The analysis set forth in the TMDL plan proposed by the Ohio EPA and adopted by the U.S. EPA supports this conclusion. The sources of phosphorus identified for Blacklick Creek included both point sources and non-point sources, and the .5 mg/l phosphorus limit was determined after conducting an analysis of how to allocate the pollutant loads among all of the sources.

{¶ 65} The TMDL was approved by the U.S. EPA as an effective plan to reduce phosphorus loading and consequently reduce nutrient enrichment via reductions in phosphorus discharge into the Big Walnut Creek Watershed. The TMDL was based on data taken directly from Big Walnut Creek and incorporated into the federally approved TMDL. Fairfield County criticizes the Ohio EPA's analysis and conclusions regarding the role of the Tussing Road plant in causing nutrient enrichment in Blacklick Creek. While Fairfield County may disagree with the analysis, it is not speculative. It was supported by the work conducted by Fancher and reflected in his April 2006 memorandum, which reports a fluctuation in dissolved oxygen levels, typically associated with nutrient enrichment, based on data collected upstream of the plant at RM 11.25 and downstream of the plant at RM 10.20.

{¶ 66} Despite Fairfield County's challenges to the analysis of the data collected, the underlying evidence relied upon by the Director via the Big Walnut Creek TMDL provides a sufficient factual foundation for the phosphorus limitation in the Tussing Road permit (subject to any possible required consideration of the technical feasibility and economic reasonableness of it, which shall be discussed later) and constitutes reliable, probative, and substantial evidence to support ERAC's order as to the lawfulness and reasonableness of the Director's action. Moreover, the TMDL plan used to establish the NPDES permit limit for phosphorus was developed in accordance with state and federal law.

2. Imposition of Limits Based On TMDL

{¶ 67} ERAC, in essence, determined that the Director's issuance of the NPDES permit containing the .5 mg/l phosphorus limit set forth in the Big Walnut Creek TMDL was consistent with the parameters of the TMDL and the NPDES process as established in

the CWA and the applicable Ohio statutes and regulations. We agree with that determination.⁴

{¶ 68} Pursuant to 40 C.F.R. 122.44(d)(1)(vii)(B), the Director, in developing water quality-based effluent limits for an NPDES permit is required to ensure that the effluent limits developed to protect a narrative water quality criterion and/or a numeric water quality criterion are consistent with the "requirements of any available wasteload allocation for the discharge prepared by the State and approved by the EPA pursuant to 40 CFR 130.7." Therefore, because the U.S. EPA approved 60 TMDLs in the TMDL plan for the Big Walnut Creek Watershed, and that TMDL plan specifically assigned a total phosphorus limit of .5 mg/l to the Tussing Road plant, the Director was required to set an effluent limit that is "consistent" with that TMDL plan.

{¶ 69} Contrary to Fairfield County's assertion, ERAC's decision neither states nor implies that the presence of an allocation in a TMDL automatically translates to the imposition of that exact limitation in the NPDES permit. In fact, ERAC's decision properly cited to the "Decision Document for Approval of Big Walnut Creek Watershed TMDL Report" ("decision document") that accompanied the U.S. EPA's September 26, 2005 approval of the TMDL plan for Big Walnut Creek Watershed. The decision document states in relevant part as follows:

5. Wasteload Allocations (WLAs)

EPA regulations require that a TMDL include WLAs, which identify the portion of the loading capacity allocated to individual existing and future point source(s) (40 C.F.R. §130.2(h), 40 C.F.R. §130.2(i)). In some cases, WLAs may cover more than one discharger, e.g., if the source is contained within a general permit.

The individual WLAs may take the form of uniform percentage reductions or individual mass based limitations for dischargers where it can be shown that this solution meets WQs and does not result in localized impairments. *These individual WLAs may be adjusted during the NPDES permitting process. If the WLAs are adjusted, the individual effluent limits for each permit issued to a discharger on the impaired water must be consistent with the assumptions and requirements of the adjusted WLAs in the TMDL. If the*

⁴ This is without considering the technical feasibility and economic reasonableness component, which shall be addressed separately with the third assignment of error and the first cross-assignment of error as raised in Fairfield County's brief and the Director's cross-brief, respectively.

WLAs are not adjusted, effluent limits contained in the permit must be consistent with the individual WLAs specified in the TMDL. If a draft permit provides for a higher load for a discharger than the corresponding individual WLA in the TMDL, the State/Tribe must demonstrate that the total WLA in the TMDL will be achieved through reductions in the remaining individual WLAs and that localized impairments will not result. All permittees should be notified of any deviations from the initial individual WLAs contained in the TMDL. EPA does not require the establishment of a new TMDL to reflect these revised allocations as long as the total WLA, as expressed in the TMDL, remains the same or decreases, and there is no reallocation between the total WLA and the total LA.

(Emphasis added.)

{¶ 70} Notably, as ERAC pointed out, individual WLAs may be adjusted during the NPDES permitting process, if the adjustments were made pursuant to the U.S. EPA's prescribed standards. Again, these standards require that: (1) any individual adjustments are "consistent with the assumptions and requirements of the adjusted WLAs in the TMDL;" (2) where a draft permit allows a higher discharge load than a corresponding individual WLA in the TMDL, the Ohio EPA must show that the total WLA will be met via adjustments in other individual WLAs and that localized impairments will not occur due to the adjustment; (3) if an adjustment is made to an individual WLA, all permittees must be notified of the changes; and (4) if allocations are revised, the Ohio EPA is not required to establish a new TMDL, so long as the total WLA remains the same or a reallocation between load adjustments and WLAs does not occur. ERAC decision, at ¶ 77.

{¶ 71} Based upon the foregoing analysis, it is clear that the U.S. EPA granted the Ohio EPA authority to make adjustments to the WLA in the NPDES permitting process, so long as certain guidelines were followed. Although modifying the individual WLAs is *not a requirement, it is an option available* to the Ohio EPA, which allows the Ohio EPA to then modify individual WLAs for point sources. However, the total WLA must remain the same and a reallocation between load adjustments and WLAs cannot occur. Yet, the Director also clearly has the option to simply impose in the NPDES permit the limitation set forth in the TMDL, since the effluent limits must be consistent with the WLA approved in the TMDL plan.

3. The Associations Report

{¶ 72} Next, Fairfield County argues the .5 mg/l phosphorus limit is unlawful because it is based on an unpromulgated "target value" for phosphorus that merely appears in the associations report.⁵ Fairfield County argues it is unlawful for Ohio EPA to regulate on the basis of unpromulgated standards. Fairfield County further argues the associations report is not a valid factual foundation for the phosphorus limit, stating the associations report fails to establish a cause-and-effect relationship between a particular amount of phosphorus in a stream and the viability of a healthy population of aquatic organisms. Fairfield County asserts other factors, such as habitat and urbanization, also have a significant effect on the biological community.

{¶ 73} The Director, on the other hand, argues that the associations report was simply used as a guidance document to craft a plan to reach attainment of water quality standards. As such, the Director submits its utilization to develop the Big Walnut Creek TMDL was proper and does not constitute a regulation on the basis of an unpromulgated standard.

{¶ 74} The associations report documents a study showing the relationship between nutrients and their effect on aquatic biota in Ohio's rivers and streams. It includes proposed total phosphorus target concentrations based upon concentrations of nutrients observed in communities with an acceptable range of biological performance. This information (particularly the .11 mg/l "target value") was then used as a tool to assist in developing the Big Walnut Creek TMDL.

{¶ 75} The associations report does in fact suggest an association between phosphorus loading and aquatic communities. However, because the data in the associations report is abstract evidence which is not specific to Blacklick Creek, Fairfield County argues the data in the associations report itself fails to establish a direct causal relationship between the particular discharge of phosphorus by the Tussing Road plant and attainment in Blacklick Creek, and therefore its usage is improper. Notably, Fairfield County has not demonstrated that such a relationship is required when the report establishes that there is a general association between phosphorus loading and aquatic

⁵ The associations report states that it is a "technical bulletin," *not* the Ohio EPA policy. It sets forth the conclusions of a study examining the relationship between nutrients and aquatic communities based upon the collection of biological and water quality samples from Ohio rivers and streams. It contains nutrient chemistry, biological community performance, and habitat data from various sites.

communities and when it is simply used as a tool to assist in developing a TMDL for a waterbody. Furthermore, as noted in the associations report, the report is a "technical bulletin," not an Ohio EPA policy.

4. Unpromulgated Standards

{¶ 76} Furthermore, use of the associations report here does not rise to the level of regulating based upon unpromulgated standards. The phosphorus limit in the NPDES permit comes from the properly promulgated Big Walnut Creek TMDL. Here, a properly developed and federally approved TMDL allocation was incorporated into the NPDES permit for the Tussing Road plant. The Director did not impose an unpromulgated guideline directly into the permit. This distinguishes this case from that of *Jackson Cty. Environmental Commt. v. Schregardus*, 95 Ohio App.3d 527 (10th Dist.1994), in which we found that the guidelines in that case, which set standards for the "safe" application of paper mill sludge under certain conditions, were in fact "rules" that should have been formally promulgated. In *Jackson Cty.*, unpromulgated guidelines were placed directly into a permit. That is not what occurred here. Therefore, we reject Fairfield County's argument.

5. Meaningful Review

{¶ 77} Finally, Fairfield County argues ERAC's conclusion that the TMDL functionally imposes a mandatory limit for the NPDES permit means that as a consequence, the NPDES permit limitations are not subject to meaningful review. Because there is no procedure to obtain meaningful review at the time the Director submits the TMDL to the U.S. EPA (a federal process), Fairfield County argues parties must have the right to a review when the NPDES permit is issued, if the permit contains effluent limits based upon the TMDL. Fairfield County argues that ERAC's decision does not allow this and thus, it fails to meet due process requirements.

{¶ 78} The Fourteenth Amendment of the United States Constitution and Article I, Section 16, of the Ohio Constitution require that administrative proceedings comply with due process. *Mathews v. Eldridge*, 424 U.S. 319 (1976). To comply with the requirements of procedural due process, government agencies must provide notice and an opportunity for a hearing before depriving individuals of their protected property interests. *Id.*, citing *Cleveland Bd. of Ed. v. Loudermill*, 470 U.S. 532, 542 (1985). A "fundamental requirement of due process is the opportunity to be heard 'at a meaningful

time and in a meaningful manner.' " *Mathews* at 333, quoting *Armstrong v. Manzo*, 380 U.S. 545, 552 (1965). See also *State ex rel. Plain Dealer Publishing Co. v. Floyd*, 111 Ohio St.3d 56, 2006-Ohio-4437, ¶ 45.

{¶ 79} "The essence of due process is the requirement that 'a person in jeopardy of serious loss [be given] notice of the case against him and opportunity to meet it.' " *Mathews* at 348, quoting *Joint Anti-Fascist Refugee Comm. v. McGrath*, 341 U.S. 123, 171-72 (1951) (Black, J., concurring). "All that is necessary is that the procedures be tailored, in light of the decision to be made, to 'the capacities and circumstances of those who are to be heard,' * * * to insure that they are given a meaningful opportunity to present their case." *Mathews* at 349, quoting *Goldberg v. Kelly*, 397 U.S. 254, 268-69 (1970).

{¶ 80} Fairfield County had the opportunity to challenge the phosphorus limitation during the NPDES permitting process. Furthermore, Fairfield County has not demonstrated how the process here violates due process. The mere fact that the Ohio EPA is required to impose effluent limitations in NPDES permits which are consistent with the TMDLs approved by the U.S. EPA, pursuant to 40 C.F.R. 122.44(d)(1)(vii)(B) and the U.S. EPA's decision document, does not translate into a denial of due process, in light of the decision to be made by the Ohio EPA. See *Friends of the Earth, Inc. v. Environmental Protection Agency*, 446 F.3d 140, 143 (D.C.Cir.2006) ("Once approved by EPA, TMDLs must be incorporated into permits allocating effluent discharges among all pollution sources, including point sources * * * and non-point sources"). See also 40 C.F.R. 122.44(d)(1)(vii)(B) (permitting authority required to establish effluent limits "consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA").

{¶ 81} In conclusion, we find ERAC did not err in ruling the Director had a valid factual foundation for the phosphorus limit set forth in the Tussing Road permit. Therefore, we overrule Fairfield County's first assignment of error.

VII. SECOND ASSIGNMENT OF ERROR—IS THERE A VALID, FACTUAL FOUNDATION FOR THE TDS LIMITS IMPOSED IN THE PERMIT?

A. Fairfield County's Argument

{¶ 82} In its second assignment of error, Fairfield County argues ERAC erred in finding the Director had a valid factual foundation for the TDS effluent limits imposed in

the NPDES permit because the ruling is not supported by reliable, probative, and substantial evidence and is not in accordance with law.

{¶ 83} More specifically, Fairfield County argues that the TDS limit is unrelated to the attainment of the applicable biological criteria, since Blacklick Creek is currently in attainment without a TDS limit, and therefore, the imposition of the TDS limit is unlawful and unreasonable. In essence, Fairfield County argues that because the aquatic life is not being materially harmed by TDS, it is unnecessary to impose a TDS limit to protect Blacklick Creek and keep it in attainment when it is already in attainment. Thus, Fairfield County argues there is no "direct correlation" between limiting TDS from the Tussing Road plant and the attainment of water quality standards, and ERAC should have found the limitation imposed was not supported by a valid factual foundation.

B. The Director's Argument

{¶ 84} The Director argues the TDS limit for the Tussing Road plant is supported by reliable, probative, and substantial evidence and meets the statewide water quality standard for TDS. The Director asserts he is not prohibited from imposing restrictions on TDS. He submits that the Ohio EPA established a proper water quality based effluent limit for TDS by assessing the reasonable potential for TDS to cause or contribute to an excursion of an applicable water quality standard and by using the formula found in Ohio Adm.Code 3745-2-06. Even though Ohio Adm.Code 3745-01-07(A)(6)(a) allows the Director to develop or approve a justification for a site-specific water quality criterion or variance, in this situation, neither the Director nor Fairfield County chose to exercise that option. In the absence of a variance, the Director submits he was not required to establish a site-specific standard, and thus he possessed a valid, factual foundation for establishing a TDS limit in accordance with the statewide water quality standard for TDS.

C. Analysis

{¶ 85} Fairfield County's basic argument is that there is no direct correlation between limiting TDS from the Tussing Road plant and the attainment of water quality standards, since Blacklick Creek is in attainment, despite the fact that the Tussing Road plant has discharged in amounts higher than permitted for several years. Because Blacklick Creek is in attainment, Fairfield County submits the permit limit, which is based upon a statewide water quality standard for TDS, is unnecessary, lacks a valid factual foundation, and it should not be imposed, pursuant to Ohio Adm.Code 3745-1-

07(A)(6)(a). Fairfield County argues that, if the Director wishes to impose a TDS limit in the permit, the Director should follow the procedures in Ohio Adm.Code 3745-1-07(A)(6)(a)(i) or (ii) to develop a justification for a site-specific water quality criterion or to establish water quality based effluent limits that are consistent with attainment of the designated use.

1. Ohio's Statewide Water Quality Standard and Ohio Adm.Code 3745-1-07

{¶ 86} The Ohio EPA has, by regulation, a chemical-specific water quality standard for TDS of 1500 mg/l. This water quality standard was used to formulate the 1,646 mg/l TDS limit set forth in the Tussing Road permit, along with a monthly average loading limitation of 18,692 kg per day.

{¶ 87} Fairfield County argues imposition of this statewide standard lacks a valid factual foundation, based upon Ohio Adm.Code 3745-1-07. In relevant part, Ohio Adm.Code 3745-1-07 states as follows:

(A) Water quality standards contain two distinct elements: designated uses; and numerical or narrative criteria designed to protect and measure attainment of the uses.

* * *

(6) Biological criteria presented in table 7-15 of this rule provide a direct measure of attainment of the warmwater habitat, exceptional warmwater habitat and modified warmwater habitat aquatic life uses. Biological criteria and the exceptions to chemical-specific or whole-effluent criteria allowed by this paragraph do not apply to any other use designations.

(a) Demonstrated attainment of the applicable biological criteria in a water body will take precedence over the application of selected chemical-specific aquatic life or whole-effluent criteria associated with these uses **when the director**, upon considering appropriately detailed chemical, physical and biological data, **finds that one or more chemical-specific or whole-effluent criteria are inappropriate**. In such cases the options which exist include:

(i) The director may develop, or a discharger may provide for the director's approval, a justification for a site-specific water quality criterion according to methods described in "Water

Quality Standards Handbook, 1983, U.S. EPA Office of Water";

(ii) The director may proceed with establishing water quality based effluent limits consistent with attainment of the designated use.

(Emphasis added.)

{¶ 88} Ohio Adm.Code 3745-1-07 sets forth the Director's options in choosing a chemical-specific or whole-effluent criteria where there is demonstrated attainment of the applicable biological criteria in a particular waterbody. It provides that where there is such demonstrated attainment, that *attainment takes precedence* over the application of selected chemical-specific aquatic life or whole-effluent criteria *when the director*, upon considering certain data, "*finds that one or more chemical-specific or whole-effluent criteria are inappropriate.*" (Emphasis added.) Under those circumstances, the following options exist: (1) the director may develop a justification for a site-specific water quality criterion; (2) the discharger may provide to the director for approval a justification for a site-specific water quality criterion; or (3) the director may establish water quality based effluent limits consistent with attainment.

{¶ 89} In its decision, ERAC found the following:

Certainly in reviewing the data before him and selecting a TDS limit above the statewide water quality criterion for TDS, the Director established a water quality based effluent limit "consistent with attainment of the designated use." The limit for TDS is 1500 mg/l * * * In selecting the TDS design flow limit of 1646 mg/l and monthly average loading limitation of 18,692 kg per day, the Director observed, that although Fairfield County's TDS discharge exceeded 1500 mg/l, the portion of the stream affected by Fairfield County was considered in attainment for the water's designated uses and data at the site routinely demonstrated that TDS discharged from the Tussing Plant was not negatively affecting the water body.

ERAC decision, at ¶ 95.

{¶ 90} In its brief, Fairfield County argues ERAC's analysis regarding TDS was flawed in two ways: (1) ERAC erred by noting that the permit limit of 1,646 mg/l of TDS is greater than the numeric water quality standard of 1,500 mg/l, since the concentration of solids downstream of the plant meets water quality standards; and (2) ERAC failed to

recognize the lack of a direct correlation between limiting TDS from the Tussing Road plant and the attainment of water quality standards, given that there is un rebutted evidence that Blacklick Creek is in attainment. Therefore, Fairfield County submits ERAC should have concluded the TDS permit limit, which was based upon chemical specific criterion (i.e., the 1,500 mg/l water quality standard), was not supported by a valid factual foundation.

{¶ 91} Fairfield County disputes the Director's claim that Fairfield County was required to develop a justification for a site-specific water quality criterion to use as a substitute. Instead, Fairfield County argues this was an obligation of the Director, not Fairfield County. Fairfield County argues it met its burden of showing the TDS limit was unrelated to the attainment of the applicable biological criteria, and thus elimination of the TDS limit is required because it is unlawful and unreasonable.

2. Water Quality Based Effluent Limits

{¶ 92} Effluent limits in NPDES permits fall into two categories: technology-based effluent limits and water quality-based effluent limits ("WQBELs"). *Catskill Mts. Chapter of Trout Unlimited, Inc. v. City of New York*, 451 F.3d 77, 85 (2d Cir.2006). WQBELs are based on the impact a particular discharge has on its receiving waters. Mark A. Ryan, *The Clean Water Act Handbook*, Chapter 2, at 26 (2d Ed.2003). "Water quality standards are retained as a supplementary basis for effluent limitations * * * so that numerous point sources, *despite individual compliance with effluent limitations*, may be further regulated to prevent water quality from falling below acceptable levels." (Emphasis added.) *Ford Motor Co. v. United States EPA*, 567 F.2d 661, fn. 12 (6th Cir.1977), citing the Clean Water Act, Sections 301(e), 302, 303, 33 U.S.C. 1311(e), 1312, 1313 (1970 Ed., Supp. IV).

{¶ 93} "An NPDES permit must contain a WQBEL for any discharge that either will cause or has the reasonable potential to cause or to contribute to an excursion above a water quality standard." *American Iron & Steel Inst. v. EPA*, 115 F.3d 979, 999 (D.C.Cir.1997), citing 40 C.F.R. 122.44(d)(1). Pursuant to the U.S. EPA regulations, a permitting authority " 'must use all relevant available data, including facility-specific effluent monitoring data where available' " and apply " 'procedures which account for existing controls on point and non-point sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing ... and, where appropriate, the dilution of the effluent in the receiving water' "

when determining whether a pollutant discharge has the reasonable potential to cause an excursion above the water quality standard. *Id.* at 999, quoting 40 C.F.R. 122.44(d)(1)(ii).

3. Applicable Statutes and Rules; Selection of a TDS Limit

{¶ 94} Ohio Adm.Code 3745-1-04 sets forth criteria applicable to all surface waters in Ohio. Specifically, under Ohio Adm.Code 3745-1-04(A), these waters must be free from suspended solids or other substances that enter the waters due to human activity and that will settle and form objectionable sludge deposits or that will adversely affect aquatic life. Also, Ohio Adm.Code 3745-33-05(A)(1)(a) requires that NPDES permits specify the maximum levels of pollutants that may be discharged in order to ensure compliance with applicable water quality standards. Furthermore, pursuant to R.C. 6111.041, the Director must establish state water quality standards to apply to the various waters of the state and adopted in accordance with Section 303 of the CWA. In addition, R.C. 6111.03(J)(3) requires the Director to impose effluent limits as conditions of NPDES permits where necessary and appropriate and to achieve and maintain water quality standards adopted under R.C. 6111.041.

{¶ 95} The federally approved statewide water quality standard for TDS is 1,500 mg/l. Here, based on testimony from Owen, the Director used data submitted by Fairfield County during the last permitting process, as well as monitoring data since the last permit was issued, and determined the TDS were at a level that would exceed the waste allocation for Blacklick Creek and cause violations of the statewide water quality standard for TDS. (Tr. Vol. III, 133.)

{¶ 96} Under Ohio Adm.Code 3745-33-07(A)(1)(a), final effluent limitations are required for pollutants that are assigned to group five of the pollutant assessment. In the instant case, the Director presented evidence, through the testimony and evidence introduced by Owen, which demonstrated that the TDS for the Tussing Road plant were in group five. (See Tr. Vol. III, 144-51; Joint exhibit No. 11 (Fact Sheet for NPDES Permit) at 11-43; and Joint exhibit No. 8 (2005 Tussing Road WLA information) at 8-6/8-7). Ohio Adm.Code 3745-2-06(B)(1) states that water quality-based effluent limits shall be recommended for any group five pollutant. *See also* former Ohio Adm.Code 3745-33-01(GG)(5) (" 'Group five' pollutants have the highest potential based on water quality data to cause or contribute to a water quality excursion; permit limitations are generally warranted based solely on water quality considerations").

{¶ 97} Based upon this, the Ohio EPA determined it was necessary to include an effluent limitation for TDS. In order to incorporate such a limit into the NPDES permit, the Ohio EPA established a water quality-based effluent limit using the formula set forth in Ohio Adm.Code 3745-2-06 to determine the reasonable potential of the TDS to cause or contribute to an excursion of any applicable water quality standard. A limitation of 1,646 mg/l of TDS was established, as well as a monthly average loading limitation of 18,692 kg per day.

{¶ 98} Fairfield County takes issue with ERAC's notation that the Director "select[ed] a TDS limit above the statewide water quality criterion for TDS." However, we do not interpret this observation to be indicative of a misunderstanding on the part of ERAC and further believe it is of no consequence. Instead, we believe ERAC was simply supporting its finding that the Director had established a water quality-based effluent limit which was "consistent with attainment of the designated use." See Ohio Adm.Code 3745-1-07(A)(6)(a)(ii).

{¶ 99} As noted by Fairfield County, Ohio Adm.Code 3745-01-07(A)(6)(a) does provide that demonstrated attainment takes precedence over the application of certain chemical-specific aquatic life or whole-effluent criteria, but it also imposes the following condition: "*when the director, upon considering appropriately detailed chemical, physical and biological data, finds that one or more chemical-specific or whole effluent criteria are inappropriate.*" (Emphasis added.) It further states that in such cases, there are three available options, one of which permits the Director to develop a site-specific water quality criterion. The second option permits the discharger (Fairfield County) to develop a justification for a site-specific water quality criterion. The third option allows the Director to proceed with establishing water quality-based effluent limits consistent with the attainment of the designated use. None of these prohibit the Director from imposing restrictions on TDS.

{¶ 100} Pursuant to Ohio Adm.Code 3745-01-07(A)(6)(a), the language allowing for the development of a site-specific criterion is not mandatory, but instead permissive. The Director has the authority to create such a standard on his own, but he is not required to do so pursuant to this administrative rule. Here, the Director did not exercise that authority or make the finding that "one or more chemical-specific or whole effluent criteria are inappropriate." Alternatively, a discharger also has the authority to develop a

justification for a site-specific water quality criterion and submit it to the Director for approval. Fairfield County did not exercise this option.

{¶ 101} Finally, we find Fairfield County's argument regarding the lack of a direct correlation between limiting TDS from the Tussing Road plant and the attainment of water quality standards to be without merit. While it is true that there is unrebutted evidence that Blacklick Creek is in attainment, in spite of the fact that the discharge of TDS was above the chemical specific criterion, there is reliable, probative, and substantial evidence demonstrating the reasonable potential for TDS to cause or contribute to an excursion of this water quality standard, based upon our analysis as set forth above.

{¶ 102} Therefore, despite Fairfield County's claims to the contrary, Fairfield County did not demonstrate that the TDS permit limit lacked a valid factual foundation, given that there was reliable, probative, and substantial evidence and testimony supporting a reasonable potential to cause or contribute to an exceedance of water quality standards. Accordingly, Fairfield County's second assignment of error is overruled.

VIII. FAIRFIELD COUNTY'S THIRD ASSIGNMENT OF ERROR AND THE DIRECTOR'S FIRST CROSS-ASSIGNMENT OF ERROR—THE TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS ANALYSIS.

{¶ 103} In its third assignment of error, Fairfield County asserts ERAC's failure to find that the TDS and phosphorus effluent limits imposed in the NPDES permit were technically infeasible and economically unreasonable is not in accordance with law. The Director has filed a cross-appeal containing a cross-assignment of error which also addresses technical infeasibility and economic reasonableness and, in essence, argues a technical feasibility and economic reasonableness analysis is not required because it is inconsistent with the CWA. Because we believe the two arguments are intertwined, we shall address this assignment of error and the Director's first cross-assignment of error together.

{¶ 104} By way of background, the Director did not engage in an analysis of technical feasibility and economic reasonableness in establishing a water quality-based effluent limit for phosphorus and TDS in the NPDES permit issued to Fairfield County. On appeal to ERAC, ERAC found that the Director was required to conduct an economic reasonableness and technical feasibility analysis of the phosphorus and TDS limitations

prior to issuing a permit imposing these limitations. ERAC further determined these issues should be returned to the Director for his consideration.

A. The Director's Argument

{¶ 105} The Director disagrees with ERAC's determination that a technical feasibility and economic reasonableness analysis was required and argues this finding is contrary to law. The Director asserts he was not required to evaluate the economic reasonableness and technical feasibility of the phosphorus and TDS limitations. The Director makes two general arguments in support of his position: (1) under the authority delegated to him by the CWA, the Director does not have the ability to consider economic reasonableness or technical feasibility in making pollutant limitation determinations; and (2) even if that analysis were consistent with the purpose of the CWA, no analysis is required here because R.C. 6111.03(J)(3) provides an exemption from the analysis where it would be contrary to the CWA, which it is in these circumstances, due to the existence of the limitations set forth in the TMDL.

{¶ 106} First, the Director argues he was not required to perform an economic reasonableness or technical feasibility analysis because neither the CWA nor Ohio law requires such an analysis in establishing a water quality-based effluent limit unless that limit is being approved in conjunction with a site-specific water quality variance. The Director argues the analysis would be inconsistent with the requirements of the CWA unless it was conducted in the context of a request from the county for a water quality variance. Because no such variance was requested here, the Director argues a technical feasibility and economic reasonableness analysis was not legally required. The Director submits ERAC improperly interpreted his obligations under R.C. 6111.03(J)(3) when it determined the Director was required to conduct this analysis.

{¶ 107} Even if such an analysis were required outside the context of a variance, the Director further argues he is without authority to perform the analysis because he only possesses delegated authority, which does not authorize this analysis, since it is contrary to the purpose and the mandates of the CWA. The Director contends the federal/state partnership would be threatened if he set limits which were less protective than those required to reach attainment and/or to maintain the designated use. Furthermore, the Director submits it is contrary to the purpose of the CWA to require an analysis of economic reasonableness or technical feasibility because a statute cannot be technology-

forcing while still allowing a technical feasibility analysis. The Director argues this analysis would be inconsistent with the requirements of the CWA.

{¶ 108} Next, the Director submits that the Ohio General Assembly intended for the economic reasonableness and technical feasibility analysis set forth in R.C. 6111.03(J)(3) to be applied to technology-based limits and that it cannot be considered when developing water quality-based effluent limits that are protective of designated uses. The Director argues it would be inconsistent with the CWA to require the Director to conduct this analysis with respect to the imposition of the water quality-based effluent limitations in this permit because effluent limitations designed to meet water quality standards are more stringent than technology standards, and are not subject to a cost-benefit analysis. The Director relies on *In re Perfect Packed Prods. Co.*, EPA GCO 37, to support its position.

{¶ 109} The Director further submits that he is obligated, pursuant to the CWA and the authority delegated to him, to impose the specified limitations set forth in the TMDL for Big Walnut Creek Watershed. The Director asserts he is required to establish a pollutant limitation consistent with the TMDL and that integrating the TMDL into the NPDES permit does not allow for an economic reasonableness and technical feasibility analysis. The Director argues he is obligated by the CWA to impose the pollutant limitations set forth in the TMDL for the Big Walnut Creek Watershed. Therefore, any consideration of economic reasonableness and technical feasibility would be irrelevant, because regardless of the results, the TMDL limit must be incorporated into the permit. The Director adds that this court does not have jurisdiction to review a TMDL after it is approved and argues that Fairfield County did not challenge the U.S. EPA's final approval of TMDL limits.

{¶ 110} Additionally, the Director contends the plain language of R.C. 6111.03(J)(3) exempts him from conducting the analysis where it would be contrary to the CWA. The Director argues that adopting a limitation inconsistent with the TMDL would be contrary to the CWA.

{¶ 111} Moreover, the Director argues ERAC effectively substituted its judgment for that of the Director in determining that the Director was required to engage in an economic reasonableness and technical feasibility analysis. The Director submits that decision by ERAC essentially determined that the Director should have evaluated whether

to increase the pollutant limitation for the plant and reduce the limitations for a different point source, rather than allowing the Director to implement the limitations exactly as set forth in the TMDL. The Director contends his decision to choose one option over the other is an exercise of his independent judgment and that his decision was supported by law and was reasonable under these circumstances. Once the Director decides to incorporate the TMDL limit into the NPDES permit, the Director argues he cannot look at the economic reasonableness and/or technical feasibility of the limitation because an adjustment cannot be made to the pollutant limitation, since it could require use of a standard inconsistent with the TMDL, and a less restrictive limit would violate the Director's obligations.

{¶ 112} With respect to TDS, the Director argues the TDS limitation he imposed was also required by the CWA because he was required to establish an effluent limit that was protective of the statewide water quality standard. The Director asserts the federally approved statewide water quality standard for TDS dictates the pollutant limitation set forth in the permit.

{¶ 113} In converting the federally approved statewide water quality standard into an effluent limit that can be integrated into an individual NPDES permit, the Director established a water quality-based effluent limit for TDS using the formula set forth in Ohio Adm.Code 3745-2-06. The Director argues that formula established the pollutant discharge limit that would allow Blacklick Creek to comply with the standard, and implementation of a less stringent limit would violate the requirement to control all pollutants which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion about the statewide water quality standard. Again, the Director submits that consideration of the economic reasonableness or technical feasibility of a pollutant limitation is only required by R.C. 6111.03(J)(3) when it is consistent with the CWA, and that it would not be consistent here, since he is required to establish a limit consistent with the statewide water quality standard for TDS.

{¶ 114} In conclusion, the Director contends it was not unlawful for him not to consider the economic reasonableness and/or technical feasibility of either the phosphorus or TDS limitations. Nevertheless, while the Director submits that an economic reasonableness and technical feasibility analysis is not required, he also argues that, in the event this court determines that such an analysis is in fact required, the

appropriate remedy is to remand the permit back to the Director for the analysis, rather than having ERAC make a determination on the issue.

B. Fairfield County's Argument

{¶ 115} Fairfield County argues the plain language of R.C. 6111.03(J)(3) requires the Director to consider technical feasibility and economic reasonableness. Based upon the language in the statute, Fairfield County contends that when setting the permit limits, the Director must give consideration to, and base his determination on, evidence relating to the technical feasibility and economic reasonableness of the permit limits, along with evidence relating to conditions calculated to result from that action and any related benefits to the people of Ohio. Fairfield County argues the Director's statutory requirement to consider technical feasibility and economic reasonableness is consistent with the CWA and disputes the Director's contention that the CWA prohibits him from conducting this analysis. Fairfield County cites to *Salem*, and asserts the Director must comply with all applicable statutory mandates in issuing permits.

{¶ 116} Fairfield County argues the TMDL does not override R.C. 6111.03 or other state laws and regulations by automatically becoming the standard that the Director is absolutely required to enforce without any discretion to make adjustments. Fairfield County asserts the Director's claims to the contrary are incorrect because: (1) any attempt by Fairfield County to challenge the TMDL prior to this would have been unripe, resulting in a dismissal; (2) 40 C.F.R. 122.44(d)(1)(vii)(B) does not require the phosphorus limit to be included in the permit because the limit was not developed to protect a narrative or numeric water quality criterion, and because the WLAs are not requirements; (3) the Director failed to promulgate a TMDL implementation plan, which is required; and (4) under the Director's interpretation that the TMDL is a binding standard that requires compliance, it is therefore a rule, which must be properly promulgated before it can be enforced.

{¶ 117} Moreover, Fairfield County specifically argues Section 303(d) of the CWA does not require the imposition of specific effluent limitation in NPDES permits. Fairfield County disputes the Director's claim that 33 U.S.C. 1313(d) requires that permits must be consistent with the terms of the TMDL *and with the WLA therein*. Fairfield County argues the TMDL establishes the total amount of a pollutant that should be present in the stream, but it does not *require* the imposition of the specific WLAs in NPDES permits.

Instead, Fairfield County argues Section 303(d)(1)(C) only requires that the load be established at a level necessary to implement the applicable water quality standards. Fairfield County submits that the Director's rigid adherence to the phosphorus allocation as a "requirement" is contradicted by the U.S. EPA document approving the TMDL.

{¶ 118} Additionally, Fairfield County disputes the Director's claim that his decision to include a phosphorus limit is a matter of discretion that is functionally unreviewable. Fairfield County argues that the Director's decision cannot be upheld if it was unlawful or unreasonable. Fairfield County argues neither the TMDL nor any provision of federal law requires the imposition of the .5 mg/l phosphorus limit in the permit.

{¶ 119} Finally, Fairfield County disagrees with ERAC's approach to the technical feasibility and economic reasonableness issue. Rather than returning this matter to the Director for his consideration, Fairfield County argues it is ERAC's duty to make this determination, based upon the evidence presented to it by Fairfield County, which it asserts demonstrates that the limits are not technically feasible and/or are economically unreasonable. Otherwise, Fairfield County complains that the Director in essence receives two bites at the apple, since the Director initially failed to rebut this evidence. Fairfield County cites to R.C. 3745.05(G), Ohio Adm.Code 3746-11-03, and *Salem*, in support of its position that ERAC is required to make the findings based on the evidence presented.

C. Analysis

1. R.C. 6111.03

{¶ 120} R.C. 6111.03 sets forth the powers of the Director of the Ohio EPA. Under R.C. 6111.03(J)(1), the Director may issue permits for the discharge of wastes "into the waters of the state, and for the installation or modification of disposal systems or any parts thereof in compliance with all requirements of the Federal Water Pollution Control Act and mandatory regulations." R.C. 6111.03(J)(2) provides that an application for a permit or renewal shall be denied if, inter alia, the Director determines that "the proposed discharge or source would conflict with an areawide waste treatment management plan adopted in accordance with section 208 of the Federal Water Pollution Control Act." R.C. 6111.03(J)(3) further provides as follows:

To achieve and maintain applicable standards of quality for the waters of the state adopted pursuant to section 6111.041 of

the Revised Code, the director shall impose, where necessary and appropriate, as conditions of each permit, *water quality related effluent limitations* in accordance with sections 301, 302, 306, 307, and 405 of the Federal Water Pollution Control Act and, to the extent consistent with that act, shall give consideration to, and base the determination on, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties from those wastes and to evidence relating to conditions calculated to result from that action and their relation to benefits to the people of the state and to accomplishment of the purposes of this chapter.

(Emphasis added.)

{¶ 121} The Director attempts to argue that the General Assembly intended for the economic reasonableness and technical feasibility analysis, as set forth in R.C. 6111.03(J)(3) to apply to technology based limits, not water quality-related effluent limits. +However, that is clearly not what the plain language of the statute says. See R.C. 6111.03(J)(3) ("the director shall impose, * * * as conditions of each permit, *water quality related effluent limitations in accordance with * * ** the Federal Water Pollution Control Act and, to the extent consistent with that act, shall give consideration to, and base the determination on, evidence relating to the technical feasibility and economic reasonableness"). (Emphasis added.)

{¶ 122} It is clear that the statute applies to water quality-based effluent limits. Thus, the issue becomes whether the requirement in R.C. 6111.03(J)(3), which applies to water quality-effluent limitations, is inconsistent with the CWA. If it is consistent, the analysis is required. If it is not consistent, then the Director is exempted from performing the analysis. The Director, in essence, argues that a technical feasibility and economic reasonableness analysis is not required because it is not consistent with the CWA.

2. Consideration of Technical Feasibility and Economic Reasonableness; Consistency with the CWA

{¶ 123} The Director submits that consideration of technical feasibility and economic reasonableness is inconsistent with the requirements and purpose of the CWA. We disagree for the reasons set forth in our analysis below.

(a) Historical Sources

{¶ 124} The Director cites to an environmental treatise,⁶ as well as various historical sources indicating that the CWA was implemented with the intention that it would be technology-forcing, rather than accepting of only water quality standards which were technologically feasible, and with the goal of finding the best technology to reduce water pollution to zero. Because of this intention and the corresponding goal, the Director argues it is contrary to the purposes of the CWA to require an analysis of economic reasonableness and/or technical feasibility of a pollutant limitation determination under R.C. 6111.03(J)(3).

{¶ 125} Fairfield County, however, argues that the statutorily required consideration of technical feasibility and economic reasonableness is consistent with the CWA. Citing to its own historical sources⁷ and going back to the 1970's, Fairfield County asserts that the language requiring consideration of technical feasibility and economic reasonableness was part of Ohio's NPDES program when it was reviewed and approved by the U.S. EPA in March 1974. Fairfield County also cites to the statutory language contained in R.C. 6111.03(J)(4) in 1973, which required the Director, in imposing water quality-related effluent limitations in permits, to "give consideration to, and base his determination on, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties from such wastes." Am.Sub. S.B. No. 80; former R.C. 6111.03(J)(4).

{¶ 126} Consequently, Fairfield County argues these considerations were required by Ohio's NPDES program when the U.S. EPA first approved it and delegated authority to Ohio to issue permits and, thus, the Director's argument that the analysis is inconsistent with the CWA and the state will lose its delegated authority if the Director considers these factors, is without merit.

{¶ 127} Fairfield County further argues the consideration of costs versus benefits is consistent with the CWA, citing to a report by the Senate Committee on Public Works regarding the 1971 amendments to the Federal Water Pollution Control Act, in which the Committee stated there must be a reasonable relationship between costs and benefits and the state must make that determination on a case-by-case basis. The Director, on the

⁶ 2 Frank P. Grad, *Treatise on Environmental Law*, 3.03 (2009).

⁷ *Discharges of Pollutants to Navigable Waters, Approval of State Programs*, 39 Fed.Reg. 26061 (July 16, 1974).

other hand, argues that this legislative history is inapplicable to the water quality-based effluent limits in dispute because it only applied in a limited situation used solely in attaining the 1983 goal of "fishable and swimmable" waters.

{¶ 128} Technology-forcing means that it compels industry to meet standards it cannot presently meet with the known standards available. Thus, it forces the development of new and better technology. We acknowledge that, as noted by the Director, the amendments to the 1972 legislation abandoned the idea that excessive effluent limits could make the water "too clean" because the limits would not be economically cost effective. See 2 Frank P. Grad, *Treatise on Environmental Law*, 3.03, 3-102 (2004). After that, "[t]he question is no longer how high must effluent standards be set in order to accomplish ambient water quality standards, but what technology can best be used, and how soon, to reduce water pollution to zero." *Id.*, citing S. Rep. No. 414 at 42.

{¶ 129} However, it is noteworthy that, although the 1977 amendments continued to include the statement of the policies and purposes of the 1972 Act, including the "zero pollution" goal, the 1977 amendments also demonstrate a partial relinquishment of that goal, in both the substantial postponement of earlier mandated standards, and in also dealing with "conventional" pollutants, where the law accepts continuing pollution on some level. 2 Frank P. Grad, *Treatise on Environmental Law*, 3.03, 3-103 (2004).

(b) Other Federal Sources

{¶ 130} The Director repeatedly argues that an economic reasonableness and technical feasibility analysis is not required for water quality-based effluent limits. The Director submits he may not, consistent with the CWA, consider economic reasonableness and technical feasibility when setting water quality-based effluent limits. The Director relies upon *In re Perfect Packed Prods. Co.*, to advance the position that a cost-benefit, or more specifically, a technical feasibility and economic reasonableness analysis is not required because the analysis would not be consistent with the CWA in these circumstances. In *In re Perfect Packed Prods. Co.*, the general counsel of the U.S. EPA stated that water quality standards must be applied by the U.S. EPA without resorting to a cost-benefit analysis of the type set forth in Section 302.

{¶ 131} However, in *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208 (2009), the Supreme Court of the United States concluded that it was within the bounds of reasonable

interpretation to conclude that a cost-benefit analysis was not categorically forbidden and therefore it was permissible to have relied upon a cost-benefit analysis in some regulations under one of the CWA provisions, even though the analysis was not explicitly required. The court found: "As early as 1977, the agency determined that, while § 1326(b) does not require cost-benefit analysis, it is also not reasonable to 'interpret Section [1326(b)] as requiring use of technology whose cost is wholly disproportionate to the environmental benefit to be gained.'" *Id.* at 224, quoting *In re Public Serv. Co. of New Hampshire*, 1 E.A.D. 332, 340 (1977).

{¶ 132} The *Entergy Corp* court further concluded: "[E]xtended consideration of the text of § 1326(b), and comparison of that with the text and statutory factors applicable to four parallel provisions of the Clean Water Act, lead us to the conclusion that it was well within the bounds of reasonable interpretation for the EPA to conclude that cost-benefit analysis is not categorically forbidden." *Id.* at 223.

{¶ 133} Granted, *Entergy Corp.*, referred to utilization of a cost-benefit analysis in the context of the use of technology-based limits, rather than water quality-based effluent limits. Nevertheless, the Director has failed to point to any provision of the CWA which explicitly or implicitly prohibits a cost-benefit analysis involving water quality based standards. Nor has the Director adequately explained how such an analysis is inconsistent under the circumstances here. The fact that an economic reasonableness and technical feasibility analysis is not explicitly *required* by federal law under the CWA does not mean that it is forbidden or inconsistent with the CWA. Moreover, Ohio law specifically provides for a technical feasibility and economic reasonableness analysis with respect to water quality-based limits, so long as it is not inconsistent with the CWA.

{¶ 134} Furthermore, other provisions of the CWA have allowed a balancing between economic costs and benefits. Even if the provision of the CWA cited by Fairfield County above was only applicable in the limited circumstances of attaining the 1983 goal of "fishable and swimmable" waters, there are other provisions which do permit a cost-benefits analysis. With the possible exception of the 1983 "fishable and swimmable" waters goal, however, we do acknowledge that the circumstances in which these analyses were permitted differs from the circumstances here (i.e., those involved technology based effluent limits, not water quality-based effluent limits). Notably, we have previously

required consideration of technical feasibility and economic reasonableness in an Ohio case involving the Clean Air Act.

(c) Ohio Case Law

{¶ 135} In *Sandusky Dock Corp. v. Jones*, 106 Ohio St.3d 274, 2005-Ohio-4982, the Supreme Court of Ohio reviewed the modification of a permit to operate issued by the Ohio EPA to a coal-loading facility. The Supreme Court determined the modification was issued without formal consideration of technical feasibility and economic reasonableness, in violation of R.C. 3704.03(R) and that "[c]onsideration of these factors is necessary to ensure that the balance between regulation and encouragement of business is properly struck." *Id.* at ¶ 20.

{¶ 136} We note that R.C. 3704.03 governs the powers of the director of environmental protection as they relate to air pollution. However, R.C. 3704.03(R) contains language that is substantially similar to that found in the statute at issue here, R.C. 6111.03(J)(3), which applies to water pollution. The relevant portion of R.C. 3704.03(R) states, in relevant part:

In the making of such orders, the director, to the extent consistent with the federal Clean Air Act, shall give consideration to, and base the determination on, evidence relating to the technical feasibility and economic reasonableness of compliance with such orders and their relation to benefits to the people of the state to be derived from such compliance.

{¶ 137} The *Sandusky Dock Corp.* court went on to find:

The director did not * * * consider evidence relating to the technical feasibility and economic reasonableness of the action. Because the director's action was unlawful, and because ERAC took no steps to cure the defects in the director's action, but also failed to comply with R.C. 3704.03(R) by refusing to consider evidence relating to the technical feasibility and economic reasonableness of the director's action during its de novo hearing, ERAC's order affirming the director's action is not in accordance with law and must be reversed.

{¶ 138} We believe the analysis in *Sandusky Dock Corp.* is instructive here, even though it applies to the Clean Air Act, rather than the CWA, and that the technical feasibility and economic reasonableness analysis is required here as well.

**(d) The Incorporation of Specific Limits from the TMDL
and Based on Statewide Water Quality Standards**

{¶ 139} The Director argues it is impossible and inconsistent with the CWA to perform a technical feasibility and economic reasonableness analysis because he is required to incorporate into the NPDES permit a phosphorus pollutant limitation that is consistent with the WLA established for the Tussing Road plant in the TMDL. Fairfield County, however, argues Section 303(d) of the CWA does not require the imposition of specific effluent limitations from the TMDL in NPDES permits and disputes the Director's claim that permits must be consistent with the terms of the TMDL *and with the WLA therein*. Fairfield County submits the TMDL establishes the total amount of a pollutant that should be present in the stream, but it does not require the imposition of the specific WLAs in the NPDES permits. Instead, Fairfield County argues Section 303(d)(1)(C) only requires that the load be established at a level necessary to implement the applicable water quality standards.

{¶ 140} Pursuant to the decision document accompanying the U.S. EPA's approval of the TMDL plan for Big Walnut Creek, the Director has the authority to adjust the individual allocations set forth in the TMDL during the NPDES permitting process as applied to a specific point source identified in the permit, so long as the total allocation in the TMDL is achieved. The decision document, as noted previously, states, in relevant part, as follows:

The individual WLAs may take the form of uniform percentage reductions or individual mass based limitations for dischargers where it can be shown that this solution meets WQs and does not result in localized impairments. These individual WLAs may be adjusted during the NPDES permitting process. If the WLAs are adjusted, the individual effluent limits for each permit issued to a discharger on the impaired water must be consistent with the assumptions and requirements of the adjusted WLAs in the TMDL. If the WLAs are not adjusted, effluent limits contained in the permit must be consistent with the individual WLAs specified in the TMDL. If a draft permit provides for a higher load for a discharger than the corresponding individual WLA in the TMDL, the State/Tribe must demonstrate that the total WLA in the TMDL will be achieved through reductions in the remaining individual WLAs and that localized impairments will not result.

{¶ 141} Furthermore, as previously noted, "each TMDL represents a goal that may be implemented *by adjusting pollutant discharge requirements in individual NPDES permits* or establishing nonpoint source controls." (Emphasis added.) *Arcadia* at 1144. "The theory is that *individual-discharge permits will be adjusted and other measures taken* so that the sum of that pollutant in the waterbody is reduced to the level specified by the TMDL." (Emphasis added.) *Sierra Club* at 1025.

{¶ 142} Neither the Big Walnut Creek TMDL report nor the U.S. EPA's approval documents require automatic enforcement of the individual TMDL allocations, and thus they are "not set in stone." In fact, the Big Walnut Creek TMDL report states that some nutrient targets, such as phosphorus, "are not codified in Ohio's water quality standards; therefore, there is a certain degree of flexibility as to how they can be used in a TMDL setting." (Joint exhibit No. 13, 13-30.)

{¶ 143} Automatic implementation of the individual TMDL allocations exactly "as is" is not required in the NPDES permit. The TMDL and the other approval documents allow for adjustments to be made. Thus, the TMDL-derived phosphorus allocation for the Tussing Road plant is not mandatory, so long as any adjustments made to it still allow it to be consistent with the TMDL and the overall sum of the phosphorus pollutant in the waterbody complies with the TMDL. The TMDL does not confine the Director to simply implementing the limitation exactly as set forth in the TMDL. Instead, the Director has the option of increasing the limit for one point source and reducing the limit for a different point source within the waterbody. Because of this, neither the TMDL nor federal law requires the imposition of the .5 mg/l phosphorus limit in the permit. Rather, the limitation imposed for phosphorus must be consistent with the TMDL, meaning that adjustments could be made. Because the Director is not automatically required to implement the TMDL allocations into the NPDES permit, consideration of economic reasonableness and technical feasibility is not irrelevant or impossible with respect to the phosphorus limit.

{¶ 144} The Director also argues the TDS limitation he imposed in the permit is required by the CWA. He contends he is required to establish an effluent limit that is protective of the statewide water quality standard of 1,500 mg/l. Here, the formula set forth in Ohio Adm.Code 3745-2-06 was used to calculate the discharge limit that would allow Blacklick Creek to comply with this standard. The Director submits that if he

established a less-restrictive limit, it would be inconsistent with the CWA and 40 C.F.R. 122.44(d)(1)(i), which requires that the pollutant limitation "control" all pollutants which are or may be discharged at a level which will cause, has the reasonable potential to cause, or will contribute to an excursion above a state water quality standard, and because TDS are a group five pollutant, it has the highest likelihood of causing excursions or violations of water quality standards. The Director further argues this standard has been federally approved and therefore it dictates the limit that must be in the permit.

{¶ 145} Fairfield County, however, submits that the Director can consider economic reasonableness and technical feasibility and that it is not inconsistent with the CWA. Fairfield County points to Ohio Adm.Code 3745-33-7(D)(10), in which the Director promulgated a variance with respect to a tough new mercury standard on the grounds that the increased risk to human health and the environment associated with granting the variance versus compliance with the water quality standard without the variance was consistent with the protection of public health and welfare.

{¶ 146} Here, Fairfield County did not request a variance based on the fact that there was demonstrated attainment despite the discharge, and, although he could have, the Director did not find, pursuant to Ohio Adm.Code 3745-01-07(A)(6)(a), that the criteria was inappropriate and/or develop its own site-specific water quality criterion. Under this administrative rule, the Director could (and in fact did) proceed to establish a water quality-based effluent limit consistent with the attainment of the designated use. However, as shall be explained more fully below, the Director is also required to comply with all applicable statutory mandates, including the language in R.C. 6111.03(J)(3). The Director has not adequately demonstrated how consideration of technical feasibility and economic reasonableness is inconsistent with the CWA and/or 40 C.F.R. 122.44(d)(1)(i) in this circumstance.

**(e) Compliance With Applicable Statutory Mandates;
Discretion and Substitution of Judgment**

{¶ 147} The Director is required to comply with all applicable statutes, regulations, and rules, including R.C. 6111.03(J)(3), which requires consideration of technical feasibility and economic reasonableness to the extent it is consistent with the CWA.

{¶ 148} In *Sandusky Dock Corp.*, the Supreme Court of Ohio analyzed R.C. 3704.03, which governs the powers of the director of environmental protection as it

applied to air pollution, and determined it could not consider two provisions of the statute, R.C. 3704.03(G) and (R), independent of one another. *See also Salem* at ¶ 13 (finding the Director must comply with all statutory mandates when issuing a permit; looking at the language of one statute in isolation without considering the mandatory language of additional applicable statutes is inadequate). Thus, the Director is required to follow all statutory mandates when issuing a permit. He does not have the discretion to ignore statutory mandates.

{¶ 149} Based upon the reasoning set forth in *Sandusky Dock Corp.*, the language in R.C. 6111.03(J)(3) requiring consideration of evidence relating to technical feasibility and economic reasonableness cannot be ignored to the extent it is consistent with the CWA.

{¶ 150} Given that we have established that the specific allocation for the Tussing Road plant set forth in the Big Walnut Creek TMDL is not an absolute requirement (because adjustments can be made), it is not inconsistent with the CWA for the Director to be held to the statutory requirement that he *give consideration to*, and base his determination regarding the imposition of water quality related effluent limitations on evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties.

{¶ 151} This same reasoning applies to the TDS limitation as well. The Director had options available to him which would allow compliance with all applicable statutes, rules and regulations.

{¶ 152} The Director, nevertheless, contends that because he has been given discretion, he should be able to choose how he wishes to comply with the requirements of the TMDL. In essence, he claims that if he chooses to simply implement the limitations set forth in the TMDL "as is" (which results in making it impossible to consider economic reasonableness or technical feasibility), rather than making adjustments, it is an abuse of discretion for ERAC to essentially find that he must consider the option of making adjustments so that he can then consider the economic reasonableness or technical feasibility analysis. However, we find the Director does not have the discretion to ignore statutory mandates.

{¶ 153} Notwithstanding that it is significant to note that the Director does have broad discretion in determining *how* he will comply with the economic reasonableness

and technical feasibility analysis requirements, given that the statute does not offer guidance on how this evaluation is to be performed. R.C. 6111.03(J)(3) simply states that the Director "shall give consideration to, and base the determination on, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties from those wastes" as well as to "evidence relating to conditions calculated to result from that action and their relation to benefits to the people of the state and to accomplishment of the purposes of this chapter."

(f) Jurisdiction to Review

{¶ 154} The Director argues this court does not have jurisdiction to review a TMDL after it has been approved. The Director submits that by approving the TMDL for the Big Walnut Creek Watershed, the U.S. EPA approved the limits for phosphorus in the Big Walnut Creek Watershed, including the area of Blacklick Creek at issue in this case and that such approval is a "final action" by the U.S. EPA, which cannot be reviewed now.

{¶ 155} The Big Walnut Creek TMDL was approved by the U.S. EPA on September 26, 2005, which included specific limits for phosphorus in Blacklick Creek. While this court may not be able to review the Big Walnut Creek TMDL, we do have the authority to review whether or not ERAC's decision finding the Director acted unlawfully in failing to conduct a technical feasibility and economic reasonableness analysis is supported by reliable, probative, and substantial evidence and is in accordance with law. We find that it is. Accordingly, we overrule the Director's first cross-assignment of error.

3. Responsibility for Analyzing Technical Feasibility and Economic Reasonableness

{¶ 156} Having now determined that consideration of technical feasibility and economic reasonableness are required, we must address the issue of who should perform the analysis. In doing so, we disagree with Fairfield County's contention that because the Director did not initially consider technical feasibility and economic reasonableness, ERAC is now required to make these findings instead of the Director.

{¶ 157} Fairfield County, as noted above, cited to R.C. 3745.05(G) and Ohio Adm.Code 3746-11-03 in support of its position. While both of these require that every order issued by ERAC shall contain a written finding of the facts upon which the order is based, this does not advance Fairfield County's proposition that ERAC must perform the technical feasibility and economic reasonableness analysis. Citing to *Salem*, Fairfield

County further argues it is ERAC's duty to make the findings regarding technical feasibility and economic reasonableness. However, we believe that case does not stand for the proposition that ERAC should perform the analysis that the Director neglected to do.

{¶ 158} In *Salem*, the court reiterated that in reviewing a decision of the Director, ERAC has the duty to determine whether the Director's action was unreasonable or unlawful, based on the evidence presented at the de novo hearing. Here, ERAC found that the Director, in imposing water quality-related effluent limitations in a permit, failed to give consideration to and base his determination upon evidence introduced regarding technical feasibility and economic reasonableness. R.C. 6111.03(J)(3) lists this as one of the powers of the Director. However, the statute does not grant that power to ERAC.

{¶ 159} In this case, ERAC determined that the Director's failure to conduct this analysis and make a determination on the issue was unlawful, based upon the statutory requirements set forth in R.C. 6111.03(J)(3) and upon the evidence presented by Fairfield County. While ERAC does have the duty to determine whether the Director's action was unreasonable or unlawful based on applicable law and the evidence presented at a de novo hearing, nothing within the decision in *Salem* indicates that ERAC also has a duty to conduct the analysis for the Director.

{¶ 160} Therefore, we find ERAC's decision to return this matter to the Director for consideration of technical feasibility and economic reasonableness is not error. Accordingly, Fairfield County's third assignment of error is overruled.

X. THE DIRECTOR'S SECOND CROSS-ASSIGNMENT OF ERROR—CREDIBLE DATA RULE

{¶ 161} In his second cross-assignment of error, the Director argues ERAC erred by improperly considering biological data submitted by Fairfield County that was not credible data under the requirements of Ohio Adm.Code 3745-4-01. We disagree.

A. The Director's Argument

{¶ 162} The Director argues that the data submitted by Fairfield County via EnviroScience in 2007 to assess Blacklick Creek, and to determine if the discharge from the Tussing Road plant was having a negative impact on Blacklick Creek, failed to comply with the requirements of Ohio Adm.Code Chapter 3745-4. The Director argues the data submitted was classified as level 3 data because it was to be used for regulatory purposes

and, therefore, it was required to be collected by a level 3 data collector. Because the data collected by EnviroScience in the 2007 macroinvertebrate survey on Blacklick Creek was not collected by a level 3 qualified data collector, and because the individual (Markowitz) who prepared the report analyzing and interpreting the data was also not a level 3 data collector, the Director asserts the data and the corresponding report are not credible under the regulations and consequently, they cannot be considered by ERAC to invalidate a regulatory decision. The Director further argues the data at issue does not meet any of the exceptions set forth in Ohio Adm.Code 3745-4-01(D).

B. Fairfield County's Response

{¶ 163} Fairfield County raises the following three arguments in response to the Director's credible data argument: (1) the credible data rule is not applicable here because Ohio Adm.Code 3745-4-03 applies to data submitted to the *Director* as credible data, not to data submitted to *ERAC*, as is the case here; (2) it would violate due process to require that data collected by Fairfield County for use in litigation against Ohio EPA be approved by its adversary prior to its use; and (3) the evidence submitted by Fairfield County to ERAC is admissible because it is reliable and relevant and satisfies the Ohio Rules of Evidence.

C. Analysis—Credible Data Rule

{¶ 164} Credible data is "scientifically valid chemical, physical, or biological water quality monitoring data concerning surface waters, including qualitative scoring of physical habitat characteristics and the sampling of fish, macroinvertebrates, and water quality, that have been collected by or submitted to the director and that comply with the requirements established in this chapter." Ohio Adm.Code 3745-4-02(B).

{¶ 165} "The director of environmental protection shall adopt rules that establish criteria for three levels of credible data related to surface water monitoring and assessment." R.C. 6111.51(A)(1). Ohio Adm.Code Chapter 3745-4 governs credible data and qualified data collectors. Ohio Adm.Code 3745-4-01, which is titled "purpose and applicability," reads in relevant part as follows:

(A) The purpose of this chapter, credible data rules, is to establish criteria for three levels of credible data *for a surface water quality monitoring and assessment program established by the director* and to establish the necessary training and experience for persons to submit credible data, *thereby increasing the information base upon which to*

enhance, improve and maintain water resource quality in Ohio.

(B) *Participation in this program is voluntary, except for the requirement under section 6111.54 of the Revised Code that each state agency in possession of surface water quality data shall submit the data to the environmental protection agency in a format designated by the director.*

(Emphasis added.)

{¶ 166} Ohio Adm.Code 3745-4-03, which governs qualified data collectors, states, in relevant part, as follows:

(A) Criteria to become a qualified data collector (QDC).

(1) All data submitted to the director for consideration as credible data shall originate from studies and samples collected by, or under the supervision of, a QDC.

{¶ 167} Ohio Adm.Code 3745-4-06, which governs level 3 data requirements and reporting, states, in relevant part, as follows:

(A) Except as provided by paragraph (D) of rule 3745-4-01 of the Administrative Code, all data submitted to the director for consideration as level 3 credible data shall be collected and submitted by level 3 qualified data collectors (QDCs) approved by the director.

{¶ 168} Level 3 data is the highest level of credible data and is used for various regulatory purposes. Ohio Adm.Code 3745-4-01(C)(3). Level 3 data must be collected by a level 3 qualified data collector. Ohio Adm.Code 3745-4-06(A).

{¶ 169} The Director claims it is illogical to require data submitted to the Director for regulatory matters to meet a certain standard of credibility, but not to require the same standard for data challenging the factual basis of the Director's regulation or permitting decision as presented before ERAC. However, we disagree with the Director's assessment.

{¶ 170} In reading the language used in Ohio Adm.Code 3745-4-03 and 3745-4-06, as well as the other related administrative rules in this section which refer to credible data, it is apparent that these rules apply to data submitted to the *Director*, *not* to data submitted to *ERAC*. As set forth in Ohio Adm.Code 3745-4-02(E), " 'Director' means the director of the Ohio environmental protection agency." Nothing within these

administrative rules refers to data submitted to ERAC. In fact, there is no reference at all to data that is submitted to ERAC.

{¶ 171} If it had been the intention to apply the credible data rules to data presented to ERAC, the administrative rules could have easily been written to reflect such an intention. They were not so written. Instead, the rules on the submission of credible data were developed as a result of "a program that classifies surface water monitoring performed by watershed groups, state agencies, schools, local volunteers and other organizations. Ohio EPA uses the data submitted under the program in ways prescribed by State law." See Ohio Environmental Protection Agency, *Ohio Credible Data Program*, http://www.epa.state.oh.us/dsw/credibledata/how_OEPA_uses_data.aspx (accessed May 23, 2013). The motivation behind the credible data rules is the idea that the state should have as much good scientific information about Ohio's surface waters as possible in order to properly manage them. *Id.* The rules allow for the submission of data to the Ohio EPA from various sources, including volunteer and citizen groups. *Id.*

{¶ 172} As stated above, there is no indication that the rules applying to the submission of this data are intended to be applied to the submission of evidence before ERAC. The Director is not ERAC. ERAC is an administrative body created to facilitate the administration of environmental law and made up of members with special expertise whose interpretation of rules and regulations and whose resolution of evidentiary conflicts are afforded due deference. See *Columbus Steel Castings Co. v. Nally*, 10th Dist. No. 11AP-932, 2012-Ohio-4417. The Ohio EPA, on the other hand, is a state environmental agency whose primary functions are the protection, management, study or assessment of the environment. See Ohio Adm.Code 3745-4-02(S).

{¶ 173} Furthermore, the credible data rules do not appear to be applicable to the circumstances here, where Fairfield County submitted its data and testimony to ERAC in response to the Director's actions regarding the permit at issue, rather than as part of a monitoring program administered by the Ohio EPA.

{¶ 174} Finally, the evidence and testimony submitted by Fairfield County met the requirements of the Ohio Rules of Evidence and was admissible for consideration by ERAC. See generally *Village of Harbor View v. Jones*, 10th Dist. No. 10AP-356, 2010-Ohio-6533, ¶ 55 (although strict rules of civil procedure and rules of evidence do not bind ERAC, all of ERAC's decisions must be predicated upon the testimony of witnesses who

are sworn and upon papers or documents that are properly authenticated in some fashion). It is up to ERAC to use its discretion to weigh the evidence received and decide whether or not it finds the evidence to be credible. Consequently, we do not find that ERAC erred in admitting the data collected on behalf of Fairfield County via the 2007 macroinvertebrate survey of Blacklick Creek.

{¶ 175} Accordingly, the Director's second cross-assignment of error is overruled.

XI. DISPOSITION

{¶ 176} In conclusion, we overrule Fairfield County's first, second, and third assignments of error. We also overrule the Director's first and second cross-assignments of error. The final order of ERAC is affirmed. As ordered by ERAC, the portions of the NPDES permit relating to phosphorus and TDS limits are vacated and remanded to the Director for further proceedings consistent with that decision.

*Judgment affirmed;
cause remanded.*

BROWN and SADLER, JJ., concur.

BEFORE THE ENVIRONMENTAL REVIEW APPEALS COMMISSION

STATE OF OHIO

BOARD OF COMMISSIONERS FAIRFIELD COUNTY	:	Case No. ERAC 235929
	:	
Appellant,	:	
	:	
v.	:	
	:	
JOSEPH KONCELIK, DIRECTOR OF ENVIRONMENTAL PROTECTION	:	
	:	
Appellee.	:	

DECISION

Rendered on May 12, 2011

Stephen P. Samuels, Esq., Elizabeth E. Tulman, Esq., Joseph Reidy, Esq., Linda Mindrutiu, Esq., for Appellants

Mike DeWine, Attorney General, Jessica B. Atleson, Esq. and L. Scott Helkowski, Esq., for Appellee Director of Ohio Environmental Protection

This matter comes before the Environmental Review Appeals Commission ("ERAC," "Commission") upon the July 27, 2006 Notice of Appeal filed by Appellant Board of Commissioners of Fairfield County ("Fairfield County"). The action underlying the instant appeal is the Director of Ohio Environmental Protection Agency's ("OEPA," Ohio EPA," "Agency," "Director") June 30, 2006 issuance of a National Pollutant Discharge Elimination System ("NPDES") permit to Fairfield County. A de novo hearing in this matter was held before the Commission from February 9 through February 13, 2009, during which all documents in the certified record were moved into the record and

admitted into evidence. Based on a review of the evidence admitted at the de novo hearing and applicable laws and regulations, the Commission finds the Director's final action of issuing the NPDES permit to Fairfield County unlawful for failure to satisfy the requirements of Ohio Revised Code ("R.C") 6111.03(J)(3).

FINDINGS OF FACT

Background on Water Quality

{¶1} The United States Congress established the Clean Water Act ("CWA") in 1972. Section 101(a) of the CWA declared that the purpose of the CWA was to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

{¶2} States are required to adopt water quality standards to protect public health or welfare, enhance the quality of water, and serve the purposes of the Clean Water Act. As such, Ohio EPA oversees Ohio's State Water Quality Management ("WQM") Plan as promulgated under Sections 303 and 208 of the Federal Water Pollution Control Act ("FWPC"). State WQM plans describe and promote efficient and comprehensive programs for controlling water pollution from point and nonpoint sources within defined geographic areas as designated by state governors. 33 U.S.C Section 1288(a); www.epa.state.oh.us/dsw/mgmtplans/208whatiswqmpm.asp; 40 CFR 131.2.

{¶3} The Areawide Water Quality Management Plan, or "208 Plan," is a discrete component of Ohio's WQM Plan. Named after Section 208 of the CWA, a 208 Plan framework authorizes the development and implementation of numerous 208

Plans to address pollution in certain regional areas as identified by the governor of each state. Once developed, 208 Plans are subject to a formal adoption process during which Ohio EPA submits a 208 Plan to the governor, who certifies the plan to the U.S. EPA Administrator. The U.S. EPA Administrator then reviews the state's 208 Plan and either approves or rejects the plan. 33 U.S.C. Section 1288(a).

{14} Relevant to the instant appeal, Section 303 of the CWA requires each 208 Plan to address nine (9) distinct elements, including setting total maximum daily loads ("TMDL") for water pollutants. The TMDL program, established under Section 303(d) of the CWA, focuses on identifying and restoring polluted rivers, streams, lakes, and other surface water bodies by requiring a written, quantitative assessment of water quality problems and contributing sources of pollution. This quantitative assessment specifies the amount a pollutant must be reduced to meet water quality standards, allocates pollutant load reductions, and provides the basis for taking actions necessary to restore a water body. 33 U.S.C. Section 1228(A)(3); 33 U.S.C. 1313.

Fairfield County's Waste Water Treatment Works

{15} Fairfield County operates a waste water treatment works facility ("WWTW," "Tussing Plant" "Plant") located at 10955 Tussing Road, Violet Township, Fairfield County in Pickerington, Ohio. The Tussing Plant serves approximately six thousand, mostly residential, customers and also treats the filter backwash water from the County's nearby water treatment plant. The Tussing Plant is located on the east side of Blacklick Creek, a few hundred yards west of State Route 256 and

approximately one-half mile south of I-70. The Tussing Plant's effluent is discharged at River Mile ("RM") 11.0. Testimony Vogel.

{¶6} Two golf courses are located in the vicinity of the Tussing Plant. Blacklick Creek Golf Course is located along the west bank of Blacklick Creek, approximately one-quarter of a mile north of the WWTW, while Turnberry Golf Course, also located on the west bank, is situated just upstream of the Plant's discharge point between RM 11.0 and RM 9.5. Several large culvert pipes drain the Turnberry Golf Course into Blacklick Creek at various points along the course. Appellant's Exhibits ("Ex.") C, D; Testimony Vogel.

{¶7} Just downstream from the Plant's outfall, on the east bank of Blacklick Creek, is a ravine that drains a shopping mall complex. Further downstream at RM 10.3, a tributary drains a large residential area of Violet Township. The areas north, south, and east of the Plant are also developed with residences and commercial buildings. Testimony Markowitz, Vogel.

{¶8} Fairfield County believes that the location and entities surrounding the WWTW have a significant impact on the overall water quality in the area. According to Ohio EPA's Robert Miltner, who was admitted at the hearing as an expert in water quality standards and aquatic biology, and Mike Bolton, who was admitted as an expert in macroinvertebrate ecology, non-point source discharges such as commercial and residential development can adversely influence water quality. It is undisputed that the greater amount of urbanization along a stream, the greater the potential impact on

water quality, including nutrients and pesticides flowing from a golf course. Testimony Bolton, Markowitz, Mendel, Miltner.

{19} In 2005, Fairfield County made six million dollars worth of improvements to the Plant, including improving the level of water treatment at the facility and increasing the volume of water that could be treated from two million gallons per day ("MGD") to three MGD. Kerry Hogan, former Director of Public Utilities for Fairfield County and current Director of Water Resources in the Wastewater Group of the Columbus office of URS (an engineering firm), testified at the hearing as an expert in wastewater treatment design. Mr. Hogan, who was involved in the planning and design of the 2005 improvements, testified that representatives of Fairfield County consulted with Ohio EPA regarding plant design and function throughout this expansion. Upon completion of the 2005 expansion, the Tussing Plant was rendered land-locked by commercial and residential development. Testimony Hogan, Vogel.

{10} David Frank, who was accepted at the hearing as Fairfield County's expert in wastewater treatment plant design and water treatment plant design, testified that he was responsible for the design of the Tussing Plant expansion that was completed in 2005. He also prepared and submitted to Ohio EPA the permit to install application and plans associated with this expansion. Mr. Frank testified that the 2002 permit to install application issued for the expansion did not include any provision for direct phosphorus or total dissolved solids ("TDS") removal and that Ohio EPA issued the permit to install without requiring such provisions. He further testified that current monitoring data demonstrate that the phosphorus and TDS limits imposed in the 2006

NPDES permit can not be met by the Tussing Plant as currently configured. Testimony Frank.

2006 NPDES Permit

{¶11} Fairfield County submitted an application for an NPDES permit renewal.¹ Ohio EPA employee John Owen, Environmental Specialist 2, Division of Surface Water, Central Office, reviewed Fairfield County's application for completeness, drafted the NPDES permit, and developed the 2006 Permit limits, including permit limits for phosphorus and TDS. Testimony Owen.

{¶12} Mr. Owen testified that Fairfield County's previous NPDES permit, issued prior to Ohio EPA's development of the 2005 TMDL report for the Big Walnut Creek, only required monitoring for phosphorus. In establishing a phosphorus limit in the current NPDES permit for the Tussing Plant, Mr. Owen referred to Ohio EPA's TMDL for Big Walnut Creek and selected the numerical limit for phosphorus, 0.5 mg/l, as stated in the TMDL. Because he believes that Ohio EPA is required to implement the pollution control measures set out in the TMDL, Mr. Owen believes did not conduct an independent analysis to evaluate whether a phosphorus limit was necessary for the Tussing Plant. Testimony Owen.

{¶13} Mr. Owen selected the TDS limit for the permit by inputting specific parameters, such as estimated (low) stream flow, upstream TDS concentration, and Tussing Plant flow into a software program that generated a calculated TDS limit. As with setting limits for phosphorus, Mr. Owen did not engage in any site-specific

¹ The record does not contain a copy of Fairfield County's application for permit renewal, as such the Commission is unable to pinpoint a precise date on which it was submitted to Ohio EPA.

biological or technical analysis to determine if a TDS limit was necessary or what that limit should be. Testimony Owen.

{¶14} In December 2005, Ohio EPA issued the draft NPDES permit to Fairfield County. On February 7, 2006, Fairfield County timely submitted comments regarding the draft NPDES for the Tussing Plant to Ohio EPA. Of particular relevance to the instant matter are the following comments regarding effluent limits of phosphorus and TDS:

* * *

The County suggests that the Agency eliminate the 0.5 mg/l **phosphorus** limit for Tussing Road WRF. This overly stringent limit would require the County to implement a chemical feed (or other measures), which would in turn mandate the installation of additional biosolids handling infrastructure. Blacklick Creek is in full attainment of WQS for the area in the vicinity of the Tussing Road WRF and actually improves downstream of the effluent outfall. To the County's knowledge, there have been no algae outbreaks in Blacklick creek. The Water Quality Report (2004) fails to include the largest source of nutrient and organic enrichment to Blacklick Creek in this stretch, the Turnberry Golf Course. In addition, there are several field tiles that discharge to Blacklick Creek along the stretch (upstream and down stream) of the Tussing Road outfall. Imposing a restrictive phosphorus limit on the Tussing Road WRF will not solve a situation created by others; nor should Fairfield County customers be held financially responsible for correcting a 'problem' caused by others. The County believes that more information is needed to determine the cause and extent of nutrient issues, if any, within this stretch of Blacklick Creek. Fairfield County would be amenable to discussing with OEPA a joint cooperative sampling program of Blacklick Creek to determine the extent and causes of any nutrient impairment. Regardless of the final concentration limit, the County requests the monthly loading limit be rounded to the nearest tenth to be consistent with the other permit limits.

* * *

Total Dissolved Solids. (TDS) As of the date of preparing these comments the County has not had the opportunity to **fully** evaluate the WLA that serves as the basis for this (and other) effluent limits. In

addition, as noted above, the County believes that stream flow used by the OEPA in the model is incorrect. Also, it appears that the Agency used 2004 plant data. Although certainly not unreasonable on its face, the Tussing Road facility was in 'shakedown' mode during part of this year, which likely also impacts the quality of the data set. Finally, before an effluent limit is imposed on the facility, the County would request that it be given an opportunity to gather additional upstream data and evaluate certain housekeeping measures that the County believes may obviate the 'need' for a TDS limit in the permit. (Emphasis sic.) Certified Record ("CR") Items 5, 7, 9; Joint Ex. 11.²

{¶15} To address the concerns outlined in Fairfield County's letter, Eric Nygaard, Environmental Specialist, Division of Surface Water ("DSW"), Permits and Compliance section of Ohio EPA, asked Matt Fancher, Ohio EPA, DSW employee in the Modeling and Assessment section, to prepare a memorandum reviewing the basis for the phosphorus limit in the NPDES permit. Mr. Nygaard testified that he did not perform an in-depth evaluation of the biological impact of current or future discharges of phosphorus or TDS from the Tussing Road outfall. He did, however, rely on Mr. Fancher's memorandum dated April 11, 2006, which included a table demonstrating, that based on a 2002 assessment of the Big Walnut Creek basin, Blacklick Creek was in "full-attainment" of its Warm Water Habitat designation. The table also documented sampling results at various river miles upstream and downstream of the Tussing Plant and appeared as follows:

² In preparation for hearing, Fairfield County engaged the expert services of Mr. Frank, the engineer who designed the 2005 plant expansion. Mr. Frank's December 2007 report entitled "Fairfield County Utilities, Tussing Road Water Reclamation Facility (WRF), Permit Compliance Study" examined the Tussing Plant's existing effluent data and the 2006 NPDES permit limits; Total Phosphorus data, reduction costs, and alternatives; and TDS data and reduction alternatives. Based on his data and analysis, Mr. Frank determined that the final permit limit for phosphorus of 0.5 mg/l could only be met with the installation of five million dollars of additional equipment and the TDS limit was not technically feasible. Testimony Frank; Joint Ex. 30.

River Mile Fish/Invert.	IBI	Mlwb	ICI	QHEI	Attainment Status	Comment
13.7	46.0	8.5	MG	71.5	FULL	Main St.
11.3	39.0	8.0	48	76.5	FULL	Ust. Tussing WRF
11.14/11.10	40.0	7.0	F/F	NA	NA	Tussing WRF Mixing Zone
11.0	44.0	8.6	38	70.5	FULL	Dst. Tussing WRF
8.8/8.9	46.0	9.4	40	70.5	FULL	Refugee Rd.

Testimony Nygaard; CR Item 6 (emphasis sic).

{116} Mr. Fancher's memorandum first began by stating that the Big Walnut Creek TMDL Study recommended a 2,073 kg/yr wasteload allocation for the Tussing Road Plant. Additionally, Mr. Fancher's memorandum outlined the stream conditions as assessed in 2000 and documented in a report titled Biological and Water Quality Study of the Big Walnut Creek Basin. The Commission summarizes and comments on key points in Mr. Fancher's memorandum, as follows:

- 1) A 10-point decline in the ICI³ score immediately downstream from the Tussing Road outfall. "The decline was caused by an increased predominance of pollution-tolerant taxa * * *" and "indicated mild organic/nutrient enrichment from the Tussing WRF." Despite the 10-point swing, both the upstream and downstream ICI scores met the biocriteria standard used to measure attainment;
- 2) A greater fluctuation in diurnal dissolved oxygen ("DO") at RM 10.2 than at RM 11.25. Despite the greater fluctuation, all DO levels met numerical DO water quality standards;
- 3) A conclusion that the "larger diurnal fluctuation recorded at the downstream site is characteristic of the excessive algal production association with a nutrient enriched condition";

³ Invertebrate Community Index, or ICI, is a scoring system developed by Ohio EPA to assess the health of aquatic macroinvertebrates in a stream. An ICI is one of the three biocriteria standards Ohio EPA employs to measure attainment of aquatic uses. The other indices measure the health of the fish community in the stream: 1) the Index of Biotic Integrity or IBI; and 2) the Modified Index of well being or Mlwb. Ohio Adm.Code 3745-1-07(B) and Table 7-15.

- 4) A "dramatic" increase in total phosphorus immediately downstream of the Tussing Plant; and
- 5) A generalized concern that future violations of water quality might occur if the flow through the Plant increases at some point in the future. No calculations or documents were included to fully substantiate Ohio EPA's concern. CR Item 6.

{¶17} Additionally, Mr. Fancher conducted the modeling for Fairfield County's NPDES permit employing a simple model, rather than the more complex "receiving stream" model, to calculate loads from nonpoint sources and other sources to Blacklick Creek. The "receiving stream" model, used further upstream from the Tussing Plant but not in the calculations for the NPDES permit, "estimates the changes in chemical constituent or physical parameter in the water quality and sometimes the transport of constituents along with the flow." Unlike the simple model, the "receiving stream" model accounts for assimilation consistent with the biological community. In other words, the "receiving stream" model accounts for the stream's natural ability to assimilate the constituent, thus the number produced by the simple method may be too conservative given the conditions of the stream. Testimony Fancher.

{¶18} When testifying at the hearing, Mr. Fancher stated that his conclusions were based upon his interpretation of data summaries, and he had never visited Blacklick Creek. He acknowledged that his "knowledge of the stream is limited to what the presented data shows" and that he has never personally witnessed any nuisance growths of algae at Blacklick Creek. Testimony Fancher.

{¶19} During the hearing, Fairfield County responded to several points raised by Mr. Fancher's memorandum, specifically to Ohio EPA's position on phosphorus, dissolved oxygen, and future impairments to the stream.

{¶20} Mr. Markowitz, an expert for Fairfield County, explained the relationship between phosphorus and dissolved oxygen as they impact the stream and its inhabitants. Phosphorus, Mr. Markowitz testified, is essential to plants and aquatic life because without its presence, streams would be unable to support the plant life on which fish and bugs feed. Excessive amounts of phosphorus, however, will produce an overgrowth of plants, and potentially result in a "nuisance."⁴ When plants grow in excess, too much dissolved oxygen is generated during the daytime because the plants are photosynthesizing, taking in CO₂ and releasing dissolved oxygen. Then, at night, when the plants no longer engage in photosynthesis, they begin taking in dissolved oxygen and releasing CO₂, a process known as respiration. Thus, in water bodies where excessive plant growth is present, known as eutrophic lakes and streams, the concentration of dissolved oxygen can plummet to very low levels at night as it is adsorbed, yet be very high during the day as it is released. The change between nighttime and daytime dissolved oxygen levels is known as "diurnal swing." Mr. Markowitz further testified that he is unaware of any study or report generating a specific number or phosphorus limit that can be universally applied in all situations. He

⁴ Ohio Adm. Code 3745-1-04 provides:

[t]he following general water quality criteria shall apply to all surface waters of the state including mixing zones. To every extent practical and possible as determined by the director, these waters shall be: * * * (E) Free from nutrients entering the waters as a result of human activity in concentrations that create nuisance growths of aquatic weeds and algae.

believes a stream's assimilative capacity, or ability to use phosphorus effectively without generating a eutrophic condition, is dependent on several factors including the stream's habitat, flow, existing aquatic life, and temperature. Testimony Markowitz.

{¶21} Fairfield County also asserted that the dissolved oxygen data cited in Mr. Fancher's memorandum do not establish the presence of a nutrient rich environment downstream of the Tussing plant. In support, Fairfield County cited several concerns about the quality of the data and Mr. Fancher's interpretation. Additionally, Mr. Krejsa, Fairfield County's expert witness who testified about impact evaluation, aquatic biology and ecology, water quality, biological surveys, and biological criteria, asserted that collection of the dissolved oxygen data did not comport with Ohio EPA's own protocol for sampling dissolved oxygen. Specifically, the data reviewed in Mr. Fancher's memorandum was collected over a two day period, rather than the seven day period generally required by Ohio EPA. Sampling over a longer period of time reduces the wide-swinging variables that can affect dissolved oxygen results. Testimony Krejsa.

{¶22} Mr. Markowitz disagreed with Mr. Fancher's conclusion that the larger diurnal swing at RM 10, which is about one mile downstream of the Plant, was determinative that the WWTW was causing excessive nutrient enrichment. Mr. Markowitz explained that in areas where nutrient enrichment is a problem a dense algal mass can be observed, along with a nighttime dissolved oxygen level that violates the water quality standards. By comparison, Mr. Markowitz had recently reviewed an extensive data set of dissolved oxygen measurements in the Columbus area, 38 sites monitored over a summer period. Within the data set he found differences comparable

to those found in Blacklick Creek and observed that such differences were not indicative of algal growth. Notably, in this instance, all dissolved oxygen data collected from Blacklick Creek met the warm water habitat water quality standards applicable Blacklick Creek, and no nuisance growths of algae have ever been observed in the creek downstream of the Plant. Testimony Markowitz.

{¶23} Fairfield County also asserted that the locations selected for sampling dissolved oxygen would not likely lead to an accurate determination of whether the effluent from the Tussing Plant was impacting water quality. Mr. Michael Mendel, Fairfield County's witness admitted in this hearing as an expert in aquatic biology, macroinvertebrate ecology, and biostatistics, testified that golf courses adjoin well over one mile of Blacklick Creek. Golf courses are known contributors of significant quantities of nitrogen and phosphorus into nearby water bodies, and he has personally observed excessive algal growth resulting from run-off from golf courses. Mr. Mendel believes that the golf courses closely located to Blacklick Creek are a likely explanation for the diurnal swings observed in the stream downstream of the Tussing Plant. Testimony Mendel.

{¶24} In his final analysis, Mr. Fancher also expressed concern about future impairment of Blacklick Creek due to increased Plant flows. Mr. Fancher analyzed Ohio EPA's concerns about increased Plant flow and stated the following:

* * * It is possible the increased loading from the Tussing WRF has exacerbated the enriched condition found in Blacklick Creek. That possibility is what the TMDL recommendation is intended to protect against. Should the instream condition below the Tussing WRF discharge in fact deteriorate, then it could very likely be found in nonattainment when next assessed. * * * CR Item 6.

{¶25} Fairfield County counters by arguing that the basis for imposing a phosphorus limit can not be whether some worsening might occur, rather Ohio EPA must present a valid factual foundation to establish that limiting the concentration of phosphorus to the final limit of 0.5 mg/l is necessary to assure that phosphorus will not cause or contribute to a violation of biocriteria. To demonstrate that Ohio EPA did not engage in independent analysis of the phosphorus, Fairfield County points to Nygaard's testimony where he states the following:

Q: And you did not independently evaluate the biological impact that discharge of phosphorus from the plant would have on the stream at 3 million gallon per day flow, did you?

A: I did not.
Testimony Nygaard, Transcript Volume III, p. 198.

{¶26} It is undisputed that nutrient enrichment in the form of algal growth has never been observed below the Tussing Plant and neither have other characteristics of nonattainment typically associated with an increased phosphorus load. Testimony Krejsa, Markowitz, Mendel, Vogel.

{¶27} Ultimately, on June 30, 2006, the Director issued NPDES permit number 4PU0004*HD ("Permit") to Fairfield County for its wastewater treatment plant. The NPDES permit became effective on August 1, 2006 and contained a phosphorus limit of 0.5 mg/l and a TDS limit of 1646 mg/l concentration and 18692 mg/l monthly loading. Joint Ex. 4.

{¶28} On July 27, 2006, Fairfield County timely appealed the Director's issuance of the 2006 Permit and later amended its Notice of Appeal on October 11, 2007.

Fairfield County's Amended Notice of Appeal sets out the following eleven assignments of error:

- The discharge limitation of Total Dissolved Residue (Solids) ('TDS') are unreasonable and unlawful.
- The discharge limitations on Total Phosphorus ["TP"] are unreasonable and unlawful.
- The schedule of compliance for TDS is unreasonable and unlawful.
- The schedule of compliance for Phosphorus is unreasonable and unlawful.
- Ohio EPA acted unlawfully, in violation of OAC 3745-33-04(C)(3), when it issued the renewal permit to Tussing Road WRF in 2006 with limits more stringent than those developed by Ohio EPA when it issued the PTI for Fairfield County's construction of new facilities in 2002.
- Ohio EPA acted unlawfully and unreasonably in imposing water-quality based limits for TP and TDS in the renewal permit for Tussing Road WRF because the receiving stream, Blacklick Creek, is already in attainment of [Warm Water Habitat].
- Ohio EPA acted unlawfully and unreasonably in imposing limits for TP and TDS in the renewal permit for Tussing Road WRF without consideration of the numerous non-point sources contributing these pollutants to Blacklick Creek.
- Ohio EPA acted unlawfully and unreasonably in imposing a TDS limit in the renewal permit for Tussing Road WRF because there is no technology that can be added to the recently constructed Tussing Road WRF to meet the TDS limit.
- Ohio EPA acted unlawfully and unreasonably in imposing TP limits in the renewal permit for Tussing Road WRF because the cost of compliance to Fairfield County and its users is economically unreasonable and would impose an undue financial hardship on the County and its residents out of proportion to the benefits, if any, that would be achieved by meeting the limits.
- Ohio EPA acted unlawfully and unreasonably in imposing TP and TDS limits in the renewal permit for Tussing Road WRF because Ohio EPA has

not demonstrated that the Tussing Road WRF is the primary source of nonattainment of WQS in Blacklick Creek, as required by OAC 3745-1-07(A)(6)(b).

- Ohio EPA acted unlawfully and unreasonably, and in violation of ORC 6111.03(J)(3), in imposing a (sic) TP and TDS limits in the renewal permit for Tussing Road WRF because Ohio EPA did not give consideration to or base its decision on the economic reasonableness and technical feasibility of removing either TP or TDS from the waste water treated at the Tussing Road WRF to meet the limits in the 2006 renewal permit. Case File Items A, U.

{¶29} At the outset it is important to recognize a critical distinction in this matter is how the Director and Fairfield County view the TMDL process and its impact on NPDES permitting in the state of Ohio. The Director asserts that in geographic areas where TMDLs have been established, NPDES permits must be consistent with the limits set out in the TMDL. Conversely, Fairfield County believes that current in-stream data should be evaluated and incorporated into the Director's decision to impose a discharge limit, even if the limit Ohio EPA selected is precisely the limit expressed in the TMDL. Fairfield County further argues, that when selecting a discharge limit, the Director must consider economic reasonableness and technical feasibility of removing the pollutant from the discharge. The Director counters that he is required to issue permits consistent with the CWA and need only consider the economic and technical factors to the extent consistent with the CWA.

{¶30} Substantively, the assignments of error in this matter can be divided into two categories - those relating to phosphorus limits and those relating to TDS limits. Before addressing Fairfield County's assignments of error, the Commission will first examine the overall condition of Blacklick Creek.

Condition of the Blacklick Creek

{¶31} At hearing, both Fairfield County and Ohio EPA presented data regarding the condition of Blacklick Creek. Biological surveys and Ohio EPA's biocriteria assessments involve evaluating the health of fish and macroinvertebrates, as well as an assessment of their habitats. As briefly noted earlier in this opinion, the principal biological evaluation tools employed by Ohio EPA are the Index of Biotic Integrity (IBI), the Modified Index of Well-Being (MIwb), and the Invertebrate Community Index (ICI). These three indices assess numerous factors, including species richness, trophic composition, diversity, presence of pollution-tolerant individuals or species, abundance of biomass, and the presence of diseased or abnormal organisms. "Habitat drives everything," and the impact of a discharger on aquatic life can be assessed by selecting appropriate sample locations upstream and downstream of the discharger. Testimony Bolton, Krejsa.

{¶32} A good upstream data collection point, or "reference site," is a location that is representative of stream conditions, absent the pollutant source being evaluated, and yet, is otherwise similar to the conditions found downstream of the discharge source. Ohio EPA chose RM 11.3, which is just north of the Tussing Plant, as a reference site for macroinvertebrates. For fish data, Ohio EPA chose as its reference sites RM 13.7 and RM 11.3 in 2000 and RM 11.3 in 1996. Testimony Krejsa, Markowitz.

{¶33} Fairfield County also collected data in the stream and contracted with EnviroScience in 2007 to assess whether the discharge from the Tussing Plant was causing an adverse impact on Blacklick Creek and to determine whether a direct

correlation between water quality and TDS or phosphorus discharges was present. At the time of EnviroScience's work, the Tussing Plant discharge flows were near 2.0 MGD, which is approximately 50% higher than the discharge flows during Ohio EPA's 2000 study. Testimony Krejsa, Markowitz.

{¶34} Though EnviroScience followed Ohio EPA macroinvertebrates sampling procedures, it believes it enhanced the accuracy of the data results by placing Hester-Dendy⁵ samplers in locations more carefully designed to isolate the Tussing Plant's impact on Blacklick Creek. Specifically, Fairfield County asserted that Ohio EPA's upstream reference site, placed upstream of a tributary that drains surface water from a residential community and road run-off, failed to accurately reflect the quality of the water reaching the Tussing Plant. Thus, because Ohio EPA's upstream data did not account for all pollutants already in the stream just prior to the water reaching the Plant, Fairfield County believes Ohio EPA's assessment of the impact of the Tussing Plant effluent was skewed such that it depicted the Tussing Plant as having a greater impact on water quality than was actually occurring. Testimony Vogel.

{¶35} In contrast, EnviroScience situated its upstream reference site below the tributary at the Tussing Road Bridge to better account for the impacts of residential development and road run-off. In other words, Fairfield County believes that EnviroScience's upstream reference point more accurately assessed water quality as it reached the Tussing Plant because it included the external impacts of road run-off and

⁵ A Hester-Dendy sampler is a multiple plate device designed for substrata sampling of macroinvertebrate organisms found in rivers, streams, lakes, and tidal flats. Testimony Mendel.

residential activity that was present, whereas Ohio EPA's reference site excluded those impacts. Testimony Markowitz.

{¶36} EnvironScience's downstream sampling site was located in essentially the same place as Ohio EPA's. Neither Ohio EPA's nor EnviroScience's downstream sampling site could fully isolate effects of the Plant's effluent, because a shopping center parking lot and nearby golf course both drain into the Tussing Plant's mixing zone. Testimony Markowitz.

{¶37} In addition to selecting different reference points, Ohio EPA and EnviroScience employed slightly different data collection procedures and calculations for sampling macroinvertebrates. Ohio EPA counted and identified a portion of the organisms in the collected samples, about 2%, and then multiplied the hand-counted results by a specific factor to calculate expected percentages and make outcome predictions. Conversely, in an attempt to more precisely characterize the sample, EnviroScience's Mr. Mendel counted and identified each organism collected in the Hester-Deny sampling devices. Testimony Mendel.

{¶38} Predictably, the results gathered from EnvironScience's and Ohio EPA's reference sites showed great disparity due to the distinctly different upstream Hester-Dendy placements. EnviroScience reported an ICI score of 34, while Ohio EPA reported an ICI score of 48. The results from the downstream sampling were similar to each other; Ohio EPA's ICI score downstream was 38 in their 2000 study, while in 2007, EnviroScience documented an ICI score of 36. Significantly, both upstream and

downstream ICI scores are considered in attainment for water quality standards for that area. Appellant's Ex. Q; Testimony Mendel.

{¶39} Mr. Mendel's hand-count of ICI-related taxa provided great insight into the types of macroinvertebrates thriving in the stream. In the upstream reference location, Mr. Mendel found fewer pollution-sensitive species than he did in the downstream location, and predictably, the upstream location had more pollution-tolerant species than the downstream location. Mr. Mendel testified that if the Tussing Plant were adversely impacting the Blacklick Creek downstream, he would have observed the opposite outcome, an increase in the pollution sensitive taxa downstream of the WWTW's outfall. Appellant's Ex. O; Testimony Mendel.

{¶40} Fairfield County also argued that, when evaluating the upstream fish and macroinvertebrate data, Ohio EPA neglected to account for a concept called "within site" variability. "Within site" variability is a phenomenon documented in benthic communities in watershed studies conducted by Ohio EPA employee, Jeff DeShon. Mr. DeShon leads Ohio EPA's fish and macroinvertebrates biosurvey group, in which Mike Bolton is also employed. At the hearing, Fairfield County submitted an Ohio EPA field sampling manual, which included a field study conducted in 1987, titled "Biological Criteria for the Protection of Aquatic Life: Volume III: Biological Field Sampling and Laboratory Methods for Assessing Fish and Macroinvertebrate Communities." In this volume of the study, Mr. DeShon obtained ICI scores from 19 juxtaposed Hester-Dendy samplers in an anthropogenically unimpacted area of Darby Creek with similar natural conditions to assess whether there was any natural variability between the samples

themselves. Mr. DeShon reported an ICI score range of 28 to 44, revealing a 16-point difference between the high and low ICI scores and a 10-point difference between the median and high ICI score. Testimony Krejsa, Mendel.

{¶41} Mr. Krejsa, Fairfield County's expert, believes because a stream is a dynamic biological system, the wide range of the ICI scores represents the natural variability that is present in valid, but wide ranging, ICI data scores. Mr. Mendel also reviewed Ohio EPA's Darby Creek ICI scores and compared the score range to the ICI results compiled by Ohio EPA in Blacklick Creek upstream of the Plant. Looking at the scope of natural variability, Mr. Mendel believed that the ICI score of 48 upstream of the Tussing plant was a number consistent with a "within site" median ICI score of 39.25⁶. The difference between the high ICI score and the median ICI score in Darby Creek was 14 points, while in Blacklick Creek the difference was only 10 points. To Mr. Mendel, the ICI score of 48, though an anomaly when considered with the other data points in the stream, was within the site's natural variability. Thus, the 10 point drop observed downstream from the Tussing Plant was not remarkable or uniquely definitive of the Blacklick Creek's condition - and certainly not so given that the downstream site was also considered in attainment as defined by Ohio EPA. Appellant's Ex. Q; Testimony Krejsa, Mendel.

{¶42} Additionally, Mr. Mendel testified about an inherent error that can occur if a pilot study is not conducted prior to subsampling, the technique used by Ohio EPA to calculate ICI scores. Mr. Mendel asserted that subsampling, by its nature, introduces

⁶ The median ICI score for all data points immediately downstream and those upstream and in attainment in Blacklick Creek is 39.25 Testimony Krejsa.

errors; therefore, the samples must be randomized and a pilot study must be first conducted to assess how well the subsampling represents the total sample. He further argued that because Ohio EPA did not randomize the samples or conduct a pilot study, Ohio EPA's ICI data from its upstream and downstream points are insufficient to draw a reliable conclusion regarding the differences between the two macroinvertebrate populations. Testimony Markowitz, Mendel.

{¶43} Mr. Mendel's final point regarding the ICI data collected by Ohio EPA addressed biological consistency. He queried whether the data "makes sense" when viewed in light of the other data collected in and known about the stream. Mr. Mendel asked the Commission to consider Ohio EPA's own fish data, the IBI and MIwb scores, along with Ohio EPA's classification of the stream as In attainment. Both the IBI and MIwb numbers improved downstream of the Tussing Plant, which is highly significant because as all the testifying experts agreed, fish communities are more sensitive to phosphorus conditions than are macroinvertebrate communities. Testimony Mendel.

{¶44} Further, Robert Miltner, one of the authors of a report titled, "Associations Between Nutrients, Habitat, and the Aquatic Biota in Ohio Rivers and Streams," commonly referred to as the Associations Report, demonstrated the presence of a strong direct correlation between habitat and biocriteria and correspondingly, a lesser direct correlation between nutrients (predominately phosphorus) and biocriteria. In the Blacklick Creek at the upstream sampling location the Qualitative Habitat Evaluation Index⁷ ("QHEI") is 76.5, while downstream the QHEI is 70.0. Mr. Mendel believes the

⁷ The Qualitative Habitat Evaluation Index is an index based on the following six metrics: 1) substrate; 2) instream cover; 3) channel morphology; 4) riparian and bank condition; 5) pool and riffle

drop in the QHEI score is a more plausible explanation for the differentiation between the upstream ICI scores and the 10-point lower downstream ICI score. Joint Ex. 21; Testimony Mendel.

{145} And finally, in his expert capacity, Mr. Mendel concluded that to a reasonable degree of scientific certainty he believes Ohio EPA lacked sufficient data to support imposing a phosphorus limit of 0.5 mg/l. Testimony Mendel.

{146} Based on the evidence presented at hearing, the Commission constructed the following chart to better understand the health of the fish communities in Blacklick Creek:

<u>River Mile</u>	<u>IBI/Miwb in 1996</u>	<u>IBI/Miwb in 2000</u>
RM 13.7	---	46/8.5
RM 11.3	38/7.8	38/8.0
Plant	---	---
RM 11.0	39/8.6	44/8.6

{147} Fairfield County did not conduct in-stream data collection and analysis for the fish community, as it did for the macroinvertebrate population. Instead, Fairfield County assembled the information previously collected by Ohio EPA and asked an expert to review and interpret the data.

quality; and 6) gradients. These metrics have been shown to correlate with stream fish communities. *Highest scores are assigned to the habitat parameters that have been shown to be correlated with streams that have high biological diversity and biological integrity, with progressively lower scores assigned to less desirable habitat features. www.epa.ohio.gov/portals/35/documents/BoC188_QHEIIntro.pdf

{¶48} Of the three biocriteria utilized by Ohio EPA to assess stream conditions, ICI, IBI, and MIwb, the fish-related indices, IBI and MIwb, are more sensitive to the impacts of phosphorus, meaning excess phosphorus would present itself sooner in the fish-related data and have a greater impact on the fish community than on the macroinvertebrates population. Or, as Mr. Krejsa opined, fish are more adversely affected by excess phosphorus than are macroinvertebrate organisms. Appellant Exs. R, S; Joint Ex. 21; Testimony Krejsa, Mendel.

{¶49} After reviewing the data compiled by Ohio EPA, Mr. Krejsa concluded to a reasonable degree of scientific certainty that phosphorus discharged from the Tussing Plant was not having an adverse impact on the fish community downstream of the WWTW's discharge point. Ohio EPA presented no data to contradict this assertion. Testimony Krejsa.

Big Walnut Creek TMDL History/Phosphorus

{¶50} The presence of a TMDL in the underlying matter is relevant to the ultimate question of whether the Director acted lawfully and reasonably by including in Fairfield County's NPDES permit a Phosphorus limit of 0.5 mg/l. As such, the Commission finds it helpful to review the background and development of Big Walnut Creek's TMDL.

{¶51} Ohio EPA performed a study of the Big Walnut Creek Watershed and developed a TMDL and implementation strategy titled Total Maximum Daily Loads for the Big Walnut Creek Watershed ("TMDL Report") dated August 19, 2005. The TMDL Report identified areas of nonattainment of water quality standards in the Big Walnut

Creek Watershed, which were mostly attributed to nutrient enrichment or excess phosphorus. Further, the TMDL Report stated that, within Big Walnut Creek, a total phosphorus concentration reduction of 62% is necessary to achieve phosphorus targets for that water body. Ohio EPA submitted the TMDL Report to the governor, who then certified the report and forwarded it to U.S. EPA. On September 26, 2005, U.S. EPA notified the Director, via letter and enclosed "decision document," that it had approved the TMDL Report for the Big Walnut Creek Watershed. Appellant Ex. M, N. Joint Ex. 13.

{152} To address nutrient enrichment in the Big Walnut Creek Watershed, Ohio EPA's TMDL included specific numeric limits for phosphorus for numerous discharge locations, including the Tussing Plant. Based on the data gathered and the calculations set out in Table 5.2F of the Big Walnut Creek TMDL, Ohio EPA assigned to Fairfield County a total phosphorus limit of 0.5 mg/l for the Tussing Road WWTW. Appellant Ex. M, N; Joint Ex. 13.

{153} Ohio EPA maintains that the limits set out in the TMDL are limits that are legally required to appear in an applicable NPDES permit. And, because Fairfield County failed to object to the TMDL report, Ohio EPA believes Fairfield County is now precluded from challenging the phosphorus limit established in the TMDL and subsequently incorporated into the NPDES permit.

{154} As noted above, the TMDL program focuses on identifying and restoring polluted rivers, streams, lakes, and other surface water bodies. The TMDL for the Big Walnut Creek Watershed listed certain areas of Blacklick Creek as in nonattainment

and certain areas as in attainment. None of the sections identified as being in nonattainment, however, were near the Tussing Plant; most nonattainment locations were sited in the headwaters of Blacklick Creek, approximately ten miles upstream of Fairfield County's WWTW. Noting that the area of greatest impairment was upstream and due mostly to residential sewage treatment failures, Mr. Markowitz argued that imposing a phosphorus limit of 0.5 mg/l would not correct problems occurring in the headwaters of Blacklick Creek. Joint Ex. 8; Testimony Markowitz.

{1155} In response to Ohio EPA's assertion that it is required by law to impose 0.5 mg/l Phosphorus limit in the NPDES permit, Fairfield County argues that U.S. EPA's decision document accompanying its approval of the Big Walnut Creek TMDL Report provides the Director with flexibility in imposing limits by stating that:

5. Wasteload Allocations (WLAs)

EPA regulations require that a TMDL include WLAs, which identify the portion of the loading capacity allocated to individual existing and future point sources (40 C.F.R. §130.2(h), 40 C.F. R. §130.2(j)). ***

The individual WLAs may take the form of uniform percentage reductions or individual mass based limitations for dischargers where it can be shown that this solution meets WQSs and does not result in localized impairments. *These individual WLAs may be adjusted during the NPDES permitting process.* If the WLAs are adjusted, the individual effluent limits for each permit issued to a discharger on the impaired water must be consistent with the assumptions and requirements of the adjusted WLAs in the TMDL. If the WLAs are not adjusted, effluent limits contained in the permit must be consistent with the individual WLAs specified in the TMDL. If a draft permit provides for a higher load for a discharger than the corresponding individual WLA in the TMDL, the State/Tribe must demonstrate that the total WLA in the TMDL will be achieved through reductions in the remaining individual WLAs and that localized impairments will not result. All permittees should be notified of any deviations from the initial individual WLAs contained in the TMDL. EPA does not require the establishment of a new TMDL to reflect these revised

allocations as long as the total WLA, as expressed in the TMDL, remains the same or decreases, and there is no reallocation between the total WLA and the total LA.⁸ * * * (Emphasis added.) Appellant Ex. N

Total Dissolved Solids

{¶56} The second main issue in the instant matter involves the limits Ohio EPA placed on TDS in Fairfield County's NPDES permit. Total Dissolved Solids is the generic name for substances that dissolve in water. If the concentrations of certain TDS substances are too high, TDS can harm or kill aquatic life. Both the draft and final NPDES permits set TDS limits at 1646 mg/l on a monthly average and an average loading limit of 18,692 kg/day to be effective on August 1, 2009, approximately 36 months after issuance of the permit. Joint Ex. 4, 8.

{¶57} In 2000, Ohio EPA conducted two sampling events in the Tussing Plant mixing zone⁹ to determine if the effluent was toxic to aquatic life. Ohio EPA found that it was not. Testimony Bolton.

{¶58} At hearing, Mr. Owen testified that when selecting effluent limits for an NPDES permit, the Director first determines which applies - a federally-established treatment-technology based limit or a state-imposed water quality effluent limit, a WQBEL¹⁰. If U.S. EPA has established a treatment-technology based limit for a

⁸ The term load allocation ("LA") relates to the loading capacity attributed to existing and future non-point sources and to the natural background data of the water body. Appellant's Ex. N.

⁹ "Mixing zone" means an area of a water body contiguous to a treated or untreated wastewater discharge. The discharge is in transit and progressively diluted from the source concentration to the receiving system concentration. The mixing zone is a place where wastewater and receiving water mix, not a place where wastes are treated." Ohio Adm. Code 3745-1-02(B)(58)

¹⁰ "Water quality based effluent limitation" or "WQBEL" means an effluent limitation determined on the basis of water quality standards (contained in Chapter 3745-1 of the Administrative Code) or waste

particular pollutant, that limit is the minimum level the Director must incorporate into the permit. Absent a U.S. EPA treatment-technology based limit for a particular pollutant, the Director must establish a WQBEL for that pollutant. In reaching a WQBEL determination, the Director first assesses the "reasonable potential for that pollutant to cause or contribute to an excursion of any applicable water quality standard" set forth in Ohio Adm.Code 3745-1. Reasonable potential is determined by comparing the preliminary effluent limit ("PEL"), or waste load allocation, to the projected effluent quality ("PEQ"). Ohio EPA relied on Fairfield County's monitoring data to calculate the PEQ. In simplest form, Ohio EPA calculates "reasonable potential" by comparing the average PEL to the average PEQ and the maximum PEL to the maximum PEQ. Then, based on the outcome of the PEQ-PEQ comparisons, the pollutant is placed in one of five groups.¹¹ Ohio Adm.Code 3745-2-06, 3745-33-01; Joint Ex. 8; Testimony Owen.

{¶59} Mr. Owen explained that TDS is classified as a Group Five Pollutant and detailed the calculations Ohio EPA employed to assess TDS at the Facility. Additionally, Mr. Owen noted the survey data compiled for TDS indicated that TDS would exceed the statewide water quality standard of 1500 mg/l. Joint Ex. 8; Testimony Owen.

load allocation procedures (contained in Chapter 3745-2 of the Administrative Code)." Ohio Adm.Code 3745-33-01(VV).

¹¹ Each of the five groups is assigned a water-quality based permit condition recommendation. Pollutants assigned to Group Five represent the highest likelihood of excursions, or violations, of the water quality standards and require the inclusion of a WQBEL in an NPEDES permit. Monitoring requirements may be imposed for pollutants assigned to Groups One through Four, as these groups represent the lowest likelihood of excursions and therefore, do not require the imposition of permit limits as do the pollutants assigned to Group Five. Ohio Adm.Code 3745-2-06; Testimony Owen.

{¶60} Ohio EPA arrived at TDS limits by using a loading test, set out in Ohio Adm.Code 3745-2-06-(b)(1)(b) (sic), that determines how much of a pollutant can be discharged without exceeding water quality criteria. Specifically, Mr. Owen calculated the effluent load by multiplying the design flow of the Plant by the permissible concentration and the background concentration of the stream to determine the amount of TDS that can be discharged into the stream. Mr. Owen made no assessment of the biological data when assigning the TDS limit. Joint Ex. 8; Testimony Owen.

{¶61} Fairfield County's expert, Mr. Mendel, reviewed Ohio EPA sampling data and assessed the biological impact of TDS discharges into the stream; he did not, however, attempt to replicate the computer-generated, calculated TDS limits established by Mr. Owen. Testimony Mendel.

{¶62} Fairfield County believes the inclusion of the selected TDS limit in the NPDES permit was unlawful, and further, the Director lacked a valid factual foundation for its inclusion in the Permit. Fairfield County asserts that TDS discharged from the Plant is not toxic to aquatic life as evidenced by Ohio EPA's own data. Ohio EPA conducted two TDS sampling events in the Tussing Plant mixing zones as part of the 2000 Big Walnut Creek assessment. Ohio EPA concluded that the effluent was not toxic, a conclusion supported by the IBI, MIwb, and ICI scores near the site. Mr. Mendel reviewed the Whole Effluent Toxicity¹² ("WET") tests performed by Ohio EPA on the Plant's effluent and noted that the WET tests revealed that the effluent was "not toxic to aquatic organisms." He further stated that if the effluent were toxic, the toxicity

¹² Whole Effluent Toxicity tests evaluate the toxicity of undiluted effluent on aquatic organisms. Testimony Markowitz.

would have presented itself in lower IBI, MIwb and ICI scores. Indeed, finding no toxicity threat in the mixing zone, Ohio EPA no longer requires Fairfield County to perform WET tests on the Plant's effluent. Joint Ex. 4; Testimony Bolton, Markowitz, Mendel.

{¶63} Mr. Frank, who was responsible for the design of the Plant's 2005 expansion, concluded that Fairfield County lacked any technically feasible options to treat or remove TDS. He first considered the most common method of treating TDS, reverse osmosis membrane, which filters the wastewater at the molecular level to remove the salt ions. Mr. Frank stated that if Fairfield County utilized this method several hundred gallons of TDS-heavy wastewater would need to be hauled from the facility daily. Mr. Frank also reviewed the no-discharge alternative, which requires storing then land-applying the treated wastewater. He calculated that approximately 130 acres of land would be necessary to construct an adequate number of storage ponds to house about 90 or 120 days worth of wastewater, which he concluded would be adequate storage to ensure that land application could occur in an appropriate manner. And finally, Mr. Frank evaluated Ohio EPA's suggestion that Fairfield County could dilute the wastewater with water from the wells the County uses to supply its water treatment plant. Mr. Frank discarded this solution because the groundwater itself contains TDS, and the aquifer from which the wells draw is already depressed due to current operational standards and more stress on the aquifer would not be an advisable solution for Fairfield County. Testimony Frank.

{¶64} Mr. Frank testified that although he was aware that in arid states such as Arizona TDS is being removed from water so that the water can be reused, he knew of none in Ohio. Notably, Mr. Owen, Ohio EPA's NPDES permit drafter, was unaware of whether any publicly owned treatment plants in Ohio were treating TDS. Testimony Frank, Owen.

{¶65} The Director asserts that he is not required to consider the economic reasonableness or the technical feasibility of phosphorus or TDS removal. Relying on Ohio Revised Code (R.C.) 6111.03(J)(3), the Director asserts that he is only required to consider economic reasonableness or technical feasibility "to the extent consistent with" the CWA and that any economic reasonableness or technical feasibility analysis that might have been considered could not override the Director's obligation to impose water quality criteria promulgated in the CWA. Testimony Owen.

CONCLUSIONS OF LAW

{¶66} Revised Code 3745.05 sets forth the standard ERAC must employ when reviewing a final action of the Director. The statute provides, in relevant part, that "[i]f, upon completion of the hearing, the commission finds that the action appealed from was lawful and reasonable, it shall make a written order affirming the action, or if the commission finds that the action was unreasonable or unlawful, it shall make a written order vacating or modifying the action appealed from." R.C. 3745.05.

{¶67} The term "unlawful" means "that which is not in accordance with law," and the term "unreasonable" means "that which is not in accordance with reason, or that

which has no factual foundation." *Citizens Committee to Preserve Lake Logan v. Williams* (1977), 56 Ohio App.2d 61, 70. This standard does not permit ERAC to substitute its judgment for that of the Director as to factual issues. *CECOS Internatl., Inc. v. Shank* (1992), 79 Ohio App.3d 1, 6. "It is only where [ERAC] can properly find from the evidence that there is no valid factual foundation for the Director's action that such action can be found to be unreasonable. Accordingly, the ultimate factual issue to be determined by [ERAC] upon the de novo hearing is whether there is a valid factual foundation for the Director's action and not whether the Director's action is the best or most appropriate action, nor whether the board would have taken the same action." *Id.*

{¶168} In cases "[w]here qualified, credible expert witnesses disagree on a matter within their expertise, the Commission defers to the decision of the Director." *Tube City Olympic of Ohio v. Jones* (Mar. 5, 2003), Case No. 994681, 203 WL 1154125 *6. See also, *Copperweld Steel Co. v. Shank* (Oct 24, 1989, Case No. EBR 781787, 1989 WL 137282, *8 (where "the question of what levels of treatment or design are necessary to protect public health or ground water are the subject of legitimate debate or dispute between qualified experts, the Board will defer to the action of the Director where that action is otherwise reasonable and lawful").

{¶169} The Commission is required to grant "due deference to the Director's 'reasonable interpretation of the legislative scheme governing his Agency.'" *Sandusky Dock Corp. v. Jones* (2005), 106 Ohio St.3d, 274, citing *Northwester Ohio Bldg. & Constr. Trades Council v. Conrad* (2001), 92 Ohio St.3d 282; *State ex rel. Celebrezze v. National Lime & Stone Co.* (1994), 68 Ohio St.3d 377; *North Sanitary Landfill, Inc. v.*

Nichols (1984), 14 Ohio App. 3d. The deference is not, however, without limits. (See e.g., *B.P. Exploration and Oil, Inc., et al v. Jones*, Ruling on Motion for Summary Adjudication and Final Order, issued March 21, 2001, in which the Commission noted that such deference must be granted to the Director's interpretation and application of his statutes and rules, "particularly if the Director's interpretation is not at variance with the explicit language of the regulations.")

{¶70} Ohio Revised Code 6111.03(J)(1) authorizes the Director to issue permits for the discharge of wastes into "waters of the state, and for the installation or modification of disposal systems or any parts thereof in compliance with all requirements of the Federal Water Pollution Control Act * * *." The Director shall deny a permit or renewal if, among other things, the "director determines that the proposed discharge or source would conflict with an areawide waste treatment management plan adopted in accordance with section 208 of the Federal Water Pollution Control Act; * *

** R.C. 6111.03(J)(2)(b).

{¶71} Ohio Revised Code 6111.03(J)(3) states the following:

To achieve and maintain applicable standards of quality for the waters of the state adopted pursuant to section 6111.041 of the Revised Code, the director shall impose, where necessary and appropriate, as conditions of each permit, water quality related effluent limitations in accordance with sections 301, 302, 306, 307, and 405 of the Federal Water Pollution Control Act and, *to the extent consistent with that act, shall give consideration to, and base the determination on, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties* from those wastes and to evidence relating to conditions calculated to result from that action and their relation to benefits to the people of the state and to accomplishment of the purposes of this chapter. (Emphasis added.)

{¶72} Similarly, state regulations governing the issuance of NPDES permits require the Director to deny an application for a permit or renewal thereof if the Director "determines that the proposed discharge or source would conflict with an areawide waste treatment management plan adopted in accordance with section 208 of the act; * * * ." Ohio Adm.Code 3745-33-04(A)(2)(b). Further, the criteria for decision by the Director require that the permit not "result in a violation of any applicable laws." Ohio Adm.Code 3745-42-04(A)(2).

{¶73} A required component of a 208 Plan, a TMDL for a particular pollutant is defined as:

"the sum of the existing and/or projected point source, nonpoint source, and background loads for the pollutant to a specified * * * water body segment. A TMDL sets and allocates the maximum amount of a pollutant that may be introduced into the water and still ensures attainment and maintenance of water quality standards." 40 C.F.R. 130.6(c)(1); Ohio Adm.Code 3745-2-02(A)(63).

{¶74} Simply stated, a TMDL plan establishes TMDLs for a particular water body or watershed. Ohio Adm.Code 3745-12-2(A)(2). Section 303(d) of the CWA does not specifically require an implementation plan for TMDLs, but does, however, require that wasteload allocations be implemented through NPDES programs. More specifically, a TMDL plan "shall be determined as the sum of all significant existing or projected loads of a pollutant to the TMDL assessment area from point sources, nonpoint sources, and background sources. The sum of the loads shall not be greater than the loading capacity of the receiving water for the pollutant minus the sum of a specified margin of safety and any capacity reserved for future growth." Ohio Adm.Code 3745-2-12(B).

{175} A TMDL plan need not bring the water body into attainment all at once.

A TMDL implementation plan may be based on attaining water quality standards over a period of time, with specific controls on individual sources being implemented in stages. Where implementing a TMDL implementation plan will not immediately attain water quality standards, the TMDL implementation plan shall reflect reasonable assurances that water quality standards will be attained in a reasonable period of time. Ohio EPA shall determine the reasonable period of time in which water quality standards will be met considering, at a minimum, the following factors:

- (1) Receiving water characteristics;
 - (2) Persistence, behavior and ubiquity of pollutants of concern;
 - (3) Type of remediation activities necessary;
 - (4) Available regulatory and non-regulatory controls; and
 - (5) Other requirements for attainment of water quality standards.
- Ohio Adm.Code 3745-2-12(E).

{176} As noted in our Findings of Fact, U.S. EPA's decision document accompanying its approval of Ohio EPA's Big Walnut Creek TMDL provides the Director with authority to adjust individual WLAs and states the following:

The individual WLAs may take the form of uniform percentage reductions or individual mass based limitations for dischargers where it can be shown that this solution meets WQSs and does not result in localized impairments. *These individual WLAs may be adjusted during the NPDES permitting process. If the WLAs are adjusted, the individual effluent limits for each permit issued to a discharger on the impaired water must be consistent with the assumptions and requirements of the adjusted WLAs in the TMDL. If the WLAs are not adjusted, the effluent limits contained in the permit must be consistent with the individual WLAs specified in the TMDL. If a draft permit provides for a higher load for a discharger than the corresponding individual WLA in the TMDL, the State/Tribe must demonstrate that the total WLA in the TMDL will be achieved through*

reductions in the remaining individual WLAs and that localized impairments will not result. All permittees should be notified of any deviations from the initial individual WLAs contained in the TMDL. EPA does not require the establishment of a new TMDL to reflect these revised allocations as long as the total WLA, as express in the TMDL, remains the same or there is no reallocation between the total WLA and the total LA.

*** (Emphasis added.)

{177} In dissecting the above text, it is clear that individual WLAs may be adjusted during the NPDES permitting process in accordance with U.S. EPA's prescribed standards for adjustments. The guidelines and requirements for adjustments are as follows: 1) any individual adjustments must be "consistent with the assumptions and requirements of the adjusted WLAs in the TMDL"; 2) "[i]f a draft permit allows for a higher discharge load than corresponding individual WLA in the TMDL, Ohio EPA must demonstrate that the total WLA in the TMDL will be met through adjustments in other individual WLAs and localized impairments will not occur as a result of the adjustment"; 3) if an adjustment to an individual WLA is made, Ohio EPA must notify all permittees of the changes; and 4) if allocations are revised, Ohio EPA is not required to establish a new TMDL, as long as the total WLA remains the same or reallocation between LAs and WLAs does not occur. (Emphasis added.)

{178} Based on a plain reading of U.S. EPA's decision document, U.S. EPA granted to Ohio EPA the authority to make adjustments to the WLA in the NPDES permitting process. Altering individual WLAs is not a mandate, but an option available to Ohio EPA allowing it to modify individual WLAs for point sources, providing that other established requirements are satisfied. United States EPA is clear, however, that

should the Director decide to alter individual WLAs, the total WLA must remain the same and no reallocation between WLAs and LAs may occur.

{179} Fairfield County's appeal of the phosphorus limit imposed in its NPDES permit centers around two basic claims. First, Fairfield County asserts the Director lacked a valid factual foundation for selecting a 0.5 mg/l phosphorus limit for the Tussing Plant, and the Director unreasonably and unlawfully failed to consider the technical feasibility and economic reasonableness of the phosphorus limits. And second, it was unlawful and unreasonable for the Director to impose the phosphorus limit as it appeared in the TMDL for Big Walnut Creek without allowing Fairfield County an opportunity to appeal that specific discharge limit.

{180} In summary, Fairfield County's fundamental question regarding the phosphorus limit is simple: Noting that the portion of the stream impacted by the Tussing Plant is deemed in attainment, how can the imposition of phosphorus restrictions on the County result in a reduced phosphorus impact in the water body upstream from the Tussing Plant or further downstream from the Plant away from the Plant's potential influence? The Commission is unable to answer this question squarely, but must rest its decision on an analysis of the laws relating to TMDLs and implementation of those limits in a NPDES permit.

{181} As to whether the Director lacked a valid factual foundation for selecting the phosphorus limit, Fairfield County argues that regardless of what limits are contained in the TMDL neither the in-stream data gathered by Ohio EPA nor the more recent data gathered by Fairfield County supports the imposition of a 0.5 mg/l

phosphorus limit. Thus, the limit is unreasonable because the Director lacked a valid factual foundation for imposing the phosphorus limit. The data collected by both entities revealed that the applicable stream conditions below the discharge point were deemed in attainment, while the nonattainment portions of the stream were either several river miles upstream from the Tussing Plant or sufficiently downstream so that intervening factors greatly affected the condition of the stream.

{182} Fairfield County also argues that the Director's action of imposing a 0.5 mg/l phosphorus limit was unlawful or unreasonable because he failed to give consideration to the technical feasibility or economic reasonableness of the phosphorus limit. Fairfield County estimated the cost of meeting the phosphorus limit would be greater than five-million dollars. Ohio EPA employee, Mr. Owen, testified he could not recall if he gave consideration to the technical feasibility or economic reasonableness of whether Fairfield County could meet the 0.5 mg/l phosphorus limit appearing in the NPDES permit. Similarly, Mr. Fancher did not conduct an analysis of whether the phosphorus limit could be met or what those costs might include. Testimony Fancher, Owen.

{183} A final concern articulated by Fairfield County was its inability to appeal the 0.5 mg/l phosphorus limit contained in the TMDL prior to that limit appearing in their NPDES permit. Ohio EPA argued that Fairfield County could have either commented on the 208 Plan or appealed U.S. EPA's approval of the Big Walnut Creek TMDL. The Commission notes that neither the documents inviting comment to the 208 Plan nor U.S. EPA's approval and accompanying decision document contains explicit language

authorizing any specific appeal rights. To the Commission, it appears that the first clear opportunity for Fairfield County to appeal the Director's action imposing 0.5 mg/l phosphorus limit was when that limit appeared in the instant NPDES permit.

{184} In the instant matter, the Director's issuance an NPDES permit containing the 0.5 mg/l phosphorous limit articulated in the Big Walnut Creek TMDL fits squarely within the designs of the TMDL and NPDES process as set out in the CWA and applicable state statutes and regulations. Further, the Director's action appears not to be "at variance with the explicit language" of the applicable regulations regarding TMDLs and NPDES permits. As evidenced by the testimony surrounding Mr. Fancher's memorandum, which was written and reviewed prior to the Director's issuance of the Permit, the Director considered the overall impact that phosphorus discharge from the Tussing Plant was having on the water body. It was at this point that the Director could have exercised the option to adjust the WLA as detailed in U.S. EPA's decision document. Based on his own review of Fairfield County's impacts on the phosphorus levels in the stream and the totality of the Big Walnut Creek TMDL, the Director left in tact the phosphorus limit approved by U.S. EPA and articulated in the TMDL. Thus, the Commission believes the Director possessed a valid factual foundation when he selected for Fairfield County's NPDES permit a phosphorus limit of 0.5 mg/l.

{185} Regarding the Director's alleged failure to consider the technical feasibility and economic reasonableness of complying with the phosphorus limit, the Director counters that in addition to his duty to comply with the U.S. EPA-approved limits set out

in the TMDL, he is required to impose conditions in NPDES permits that are necessary and appropriate to achieve and maintain the state's water quality standards and that he need only consider technical and economic matters to "the extent consistent with" the Federal Water Pollution Control Act ("FWPCA").

{¶86} The Commission disagrees with the Director's interpretation of R.C. 6111.03(J)(3) and believes that a plain reading of the statute make the Director's duties clear. As previously cited, Ohio Revised Code 6111.03(J)(3), in pertinent part, states the following:

To achieve and maintain applicable standards of quality for the waters of the state * * *, the director shall impose, where necessary and appropriate, * * * water quality related effluent limitations * * * and, *to the extent consistent with that act, shall give consideration to, and base the determination on, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties from those wastes and to evidence relating to conditions calculated to result from that action and their relation to benefits to the people of the state and to accomplishment of the purposes of this chapter.* (Emphasis added.)

{¶87} The relevant phrases of R.C. 6111.03(J)(3) begin, " * * * the Director shall impose * * * limits" and " * * * to the extent consistent with" the FWPCA, he "*shall give consideration to, and base the determination on, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties from those wastes and to evidence relating to conditions calculated to result from that action and their relation to the benefits of the people of the state and to accomplishment of the purposes of this chapter.*"

{¶88} The facts support that the Director did not give consideration to or base his decision on information regarding the technical feasibility and economic

reasonableness of removing phosphorus nor did he "give consideration to, and base his decision on, * * * evidence relating to conditions calculated to result from that action and their relation to the benefits to the people of the state and to accomplishment of the purposes of this chapter."

{189} Therefore, the Commission must conclude that the Director's action of imposing a phosphorus limit without satisfying the mandates of R.C. 6111.03(J)(3) was unlawful. After considering these factors, the Director may indeed determine the 0.5 mg/l phosphorus limit as identified in Big Walnut Creek TMDL satisfies the requirements of R.C. 6111.03(J)(3), but a technical feasibility and economic reasonableness analysis must be conducted for Fairfield County's NPDES permit to be lawful.

{190} Regarding TDS, Fairfield County asserts that the Director lacked a valid factual foundation to impose in Fairfield County's NPDES permit a TDS design flow limit of 1646 mg/l and a monthly average loading limitation of 18,692 kg per day. In support, Fairfield County highlighted the results of the WET testing, the numerous years of compliant downstream biocriteria measurements, the absence of toxicity in the mixing zone, the expert testimony of Ms. Mendel and Dr. Markowitz, and the lack of contrary testimony from Ohio EPA. Fairfield County also cites Ohio Adm.Code 3745-1-07(A)(6)(a) arguing that the Director failed to consider the following:

(a) Demonstrated attainment of the applicable biological criteria in a water body will take precedence over the application of selected chemical-specific aquatic life or whole-effluent criteria associated with these uses when the director, upon considering appropriately detailed chemical, physical and biological data, finds that one or more chemical-specific or whole-effluent criteria are inappropriate. * * *

{¶191} Citing to its duty to achieve and maintain the state's water quality standards under R.C. Chapter 6111, Ohio EPA countered that because the compiled stream survey data indicated that TDS would exceed the statewide water quality standard of 1500 mg/l, regardless of what other stream assessments revealed, the Director was required to assign a TDS limit to Fairfield County.

{¶192} In response to Fairfield County's reference to Ohio Adm.Code 3745-1-07(A)(6)(a), the Director urged the Commission to consider the entirety of the regulation. In pertinent part, Ohio Adm.Code 3745-1-07 states the following:

(A) Water quality standards contain two distinct elements: designated uses; and numerical or narrative criteria designed to protect and measure attainment of the uses.

* * *

(6) Biological criteria presented in table 7-15 of this rule provide a direct measure of attainment of the warmwater habitat, exceptional warmwater habitat and modified warmwater habitat aquatic life uses. Biological criteria and the exceptions to chemical-specific or whole-effluent criteria allowed by this paragraph do not apply to any other use designations.

(a) Demonstrated attainment of the applicable biological criteria in a water body will take precedence over the application of selected chemical-specific aquatic life or whole-effluent criteria associated with these uses when the director, upon considering appropriately detailed chemical, physical and biological data, finds that one or more chemical-specific or whole-effluent criteria are inappropriate. In such cases the options which exist include:

(i) The director may develop, or a discharger may provide for the director's approval, a justification for a site-specific water quality criterion according to methods described in "Water Quality Standards Handbook, 1983, U.S. EPA Office of Water";

(ii) The director may proceed with establishing water quality based effluent limits consistent with attainment of the designated use.

{¶93} Fairfield County asserts that because the applicable biological criteria in the water body were deemed in attainment, attainment status should take precedent over selection of a limit on TDS. While that may be true, our inquiry does not end here. The Commission must consider the entirety of the applicable regulation, and as such, finds support for the Director's position in the balance of Ohio Adm.Code 3745-1-07.

{¶94} More specifically, Ohio Adm.Code 3745-1-07, among other things, outlines the Director's options regarding what may occur when selecting a chemical-specific or whole-effluent criteria if a water body is deemed in attainment of applicable biological criteria. The applicable portion of the rule begins by stating that in water bodies deemed in attainment, biological criteria will take precedence over a chemical specific or whole-effluent criteria "*when the director, upon considering appropriately detailed chemical, physical and biological data,*" finds that chemical-specific or whole-effluent criteria are inappropriate. (Emphasis added.) Ohio Adm.Code 3745-1-07(A)(6)(a). The rule continues and offers two options on how to proceed - the "director may develop, or a discharger may provide for the director's approval," justification for site-specific criterion; or the director may establish effluent limits consistent with attainment of the water's designated uses. Id.

{¶95} Certainly in reviewing the data before him and selecting a TDS limit above the statewide water quality criterion for TDS, the Director established a water quality based effluent limit "consistent with attainment of the designated use." The limit for

TDS is 1500 mg/l. Ohio Adm.Code 3745-1-07 Table 7-1. In selecting the TDS design flow limit of 1646 mg/l and monthly average loading limitation of 18,692 kg per day, the Director observed, that although Fairfield County's TDS discharge exceeded 1500 mg/l, the portion of the stream affected by Fairfield County was considered in attainment for the water's designated uses and data at the site routinely demonstrated that TDS discharged from the Tussing Plant was not negatively affecting the water body.

{196} Based on the facts offered at hearing, Fairfield County did not "provide for the Director's approval a justification for site-specific water quality criterion," and it is unclear whether the Director's review of TDS impacts would rise to the level of a "justification" as set out in the Ohio Adm.Code 3745-1-07.

{197} Fairfield County's also argues that the Director's action was unreasonable and/or unlawful because he failed to consider the technical feasibility and economic reasonableness of meeting the TDS limit established in the NPDES permit. Fairfield County asserted that none of the treatment methods it evaluated were technically feasible or economically reasonable ways to dispose of the excess TDS. Ohio EPA does not claim to have evaluated the technical feasibility or economic reasonableness of the TDS limit prior to issuing the permit and was unaware whether any publicly owned treatment plants in Ohio were treating TDS; but, as with the phosphorus limit, the Director asserts he was only required to consider technical feasibility and economic reasonableness so long as the limit imposed was consistent with the FWPCA.

{198} Again, the facts are clear that the Director did not give consideration to or base his decision on information regarding the technical feasibility and economic

reasonableness of meeting the TDS limit nor did he "give consideration to, and base his decision on, * * * evidence relating to conditions calculated to result from that action and their relation to the benefits to the people of the state and to accomplishment of the purposes of this chapter."

{¶99} The Commission finds that the Director failed to satisfy the full requisites of R.C. 6111.03(J)(3). Therefore, the Commission must conclude that the Director's action of imposing a TDS limit without satisfying the mandates of R.C. 6111.03(J)(3) was unlawful.

FINAL ORDER

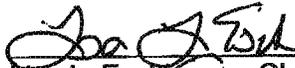
Based upon the foregoing, the Commission finds Appellee Director acted unlawfully in issuing the NPDES permit to Fairfield County without full consideration of the technical feasibility and economic reasonableness of the phosphorus and TDS limits contained in the permit, as required by R.C. 6111.03(J)(3). Accordingly, the portions of Fairfield County's NPDES permit relating to phosphorus and TDS limits are hereby VACATED AND REMANDED to the Director for further action consistent with the decision as issued herein.

The Commission, in accordance with Ohio Adm.Code Section 3746-13-01, informs the parties that:

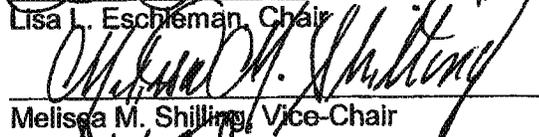
Any party adversely affected by an order of the commission may appeal to the Court of Appeals For Franklin County, or if the appeal arises from an alleged violation of law or regulation, to the court of appeals of the district in which the violation was alleged to have occurred. The party so appealing shall file with the commission a notice of appeal designating the order from which an appeal is being taken. A copy of such notice shall also be filed by the appellant with the court, and a copy shall be sent by certified mail to the director or other statutory agency. Such notices shall

be filed and mailed within thirty days after the date upon which appellant received notice from the commission of the issuance of the order. No appeal bond shall be required to make an appeal effective.

**THE ENVIRONMENTAL REVIEW
APPEALS COMMISSION**



Lisa J. Eschleman, Chair



Melissa M. Shilling, Vice-Chair



Shaun K. Petersen, Member

Entered into the Journal of the
Commission this 10th
day of May, 2011.

COPIES SENT TO:

- BOARD OF COMMISSIONERS FAIRFIELD COUNTY
- JOSEPH KONCELIK, DIRECTOR
- Stephen P. Samuels, Esq.
- Elizabeth E. Tulman, Esq.
- Joseph Reidy, Esq.
- Linda Mindrutiu, Esq.
- Jessica B. Atleson, Esq.
- L. Scott Helkowski, Esq.

[CERTIFIED MAIL]
[CERTIFIED MAIL]

CERTIFICATION

I hereby certify that the foregoing is a true and accurate copy of the DECISION in **Board of Commissioners Fairfield County v. Joseph Koncelik, Director of Environmental Protection**, Case No. ERAC 235929 entered into the Journal of the Commission this 12th day of May, 2011.



Julie A. Slane, Executive Secretary

Dated this 12th day of
May, 2011, at Columbus, Ohio.

United States Code Annotated

Title 33. Navigation and Navigable Waters (Refs & Annos)

Chapter 26. Water Pollution Prevention and Control (Refs & Annos)

Subchapter I. Research and Related Programs (Refs & Annos)

33 U.S.C.A. § 1251

§ 1251. Congressional declaration of goals and policy

Currentness

(a) Restoration and maintenance of chemical, physical and biological integrity of Nation's waters; national goals for achievement of objective

The objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this chapter--

- (1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;
- (2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;
- (3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;
- (4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;
- (5) it is the national policy that areawide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State;
- (6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone, and the oceans; and
- (7) it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this chapter to be met through the control of both point and nonpoint sources of pollution.

(b) Congressional recognition, preservation, and protection of primary responsibilities and rights of States

It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this chapter. It is the policy of Congress that the States manage the construction grant program under this chapter and implement the permit programs

§ 1251. Congressional declaration of goals and policy, 33 USCA § 1251

under sections 1342 and 1344 of this title. It is further the policy of the Congress to support and aid research relating to the prevention, reduction, and elimination of pollution, and to provide Federal technical services and financial aid to State and interstate agencies and municipalities in connection with the prevention, reduction, and elimination of pollution.

(c) Congressional policy toward Presidential activities with foreign countries

It is further the policy of Congress that the President, acting through the Secretary of State and such national and international organizations as he determines appropriate, shall take such action as may be necessary to insure that to the fullest extent possible all foreign countries shall take meaningful action for the prevention, reduction, and elimination of pollution in their waters and in international waters and for the achievement of goals regarding the elimination of discharge of pollutants and the improvement of water quality to at least the same extent as the United States does under its laws.

(d) Administrator of Environmental Protection Agency to administer chapter

Except as otherwise expressly provided in this chapter, the Administrator of the Environmental Protection Agency (hereinafter in this chapter called "Administrator") shall administer this chapter.

(e) Public participation in development, revision, and enforcement of any regulation, etc.

Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this chapter shall be provided for, encouraged, and assisted by the Administrator and the States. The Administrator, in cooperation with the States, shall develop and publish regulations specifying minimum guidelines for public participation in such processes.

(f) Procedures utilized for implementing chapter

It is the national policy that to the maximum extent possible the procedures utilized for implementing this chapter shall encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds, so as to prevent needless duplication and unnecessary delays at all levels of government.

(g) Authority of States over water

It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter. It is the further policy of Congress that nothing in this chapter shall be construed to supersede or abrogate rights to quantities of water which have been established by any State. Federal agencies shall co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.

CREDIT(S)

(June 30, 1948, c. 758, Title I, § 101, as added Oct. 18, 1972, Pub.L. 92-500, § 2, 86 Stat. 816; amended Dec. 27, 1977, Pub.L. 95-217, §§ 5(a), 26(b), 91 Stat. 1567, 1575; Feb. 4, 1987, Pub.L. 100-4, Title III, § 316(b), 101 Stat. 60.)

EXECUTIVE ORDERS

EXECUTIVE ORDER NO. 11548

Ex. Ord. No. 11548, July 20, 1970, 35 F.R. 11677, which related to the delegation of Presidential functions, was superseded by Ex. Ord. No. 11735, Aug. 3, 1973, 38 F.R. 21243, set out as a note under section 1321 of this title.

EXECUTIVE ORDER NO. 11742

<Oct. 23, 1973, 38 F.R. 29457>

**Delegation of Functions to Secretary of State Respecting Negotiation
of International Agreements Relating to Enhancement of Environment**

Under and by virtue of the authority vested in me by section 301 of title 3 of the United States Code and as President of the United States, I hereby authorize and empower the Secretary of State, in coordination with the Council on Environmental Quality, the Environmental Protection Agency, and other appropriate Federal agencies, to perform, without the approval, ratification, or other action of the President, the functions vested in the President by Section 7 of the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500; 86 Stat. 898) with respect to international agreements relating to the enhancement of the environment.

RICHARD NIXON.

Notes of Decisions (116)

33 U.S.C.A. § 1251, 33 USCA § 1251

Current through P.L. 113-57 (excluding P.L. 113-54 and 113-56) approved 12-9-13

End of Document

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United States Code Annotated

Title 33. Navigation and Navigable Waters (Refs & Annos)

Chapter 26. Water Pollution Prevention and Control (Refs & Annos)

Subchapter III. Standards and Enforcement (Refs & Annos)

33 U.S.C.A. § 1313

§ 1313. Water quality standards and implementation plans

Effective: October 10, 2000

Currentness

(a) Existing water quality standards

(1) In order to carry out the purpose of this chapter, any water quality standard applicable to interstate waters which was adopted by any State and submitted to, and approved by, or is a waiting approval by, the Administrator pursuant to this Act as in effect immediately prior to October 18, 1972, shall remain in effect unless the Administrator determined that such standard is not consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972. If the Administrator makes such a determination he shall, within three months after October 18, 1972, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after the date of such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.

(2) Any State which, before October 18, 1972, has adopted, pursuant to its own law, water quality standards applicable to intrastate waters shall submit such standards to the Administrator within thirty days after October 18, 1972. Each such standard shall remain in effect, in the same manner and to the same extent as any other water quality standard established under this chapter unless the Administrator determines that such standard is inconsistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972. If the Administrator makes such a determination he shall not later than the one hundred and twentieth day after the date of submission of such standards, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.

(3)(A) Any State which prior to October 18, 1972, has not adopted pursuant to its own laws water quality standards applicable to intrastate waters shall, not later than one hundred and eighty days after October 18, 1972, adopt and submit such standards to the Administrator.

(B) If the Administrator determines that any such standards are consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972, he shall approve such standards.

(C) If the Administrator determines that any such standards are not consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972, he shall, not later than the ninetieth day after the date of submission of such standards, notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standards pursuant to subsection (b) of this section.

(b) Proposed regulations

(1) The Administrator shall promptly prepare and publish proposed regulations setting forth water quality standards for a State in accordance with the applicable requirements of this Act as in effect immediately prior to October 18, 1972, if—

(A) the State fails to submit water quality standards within the times prescribed in subsection (a) of this section.

(B) a water quality standard submitted by such State under subsection (a) of this section is determined by the Administrator not to be consistent with the applicable requirements of subsection (a) of this section.

(2) The Administrator shall promulgate any water quality standard published in a proposed regulation not later than one hundred and ninety days after the date he publishes any such proposed standard, unless prior to such promulgation, such State has adopted a water quality standard which the Administrator determines to be in accordance with subsection (a) of this section.

(c) Review; revised standards; publication

(1) The Governor of a State or the State water pollution control agency of such State shall from time to time (but at least once each three year period beginning with October 18, 1972) hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. Results of such review shall be made available to the Administrator.

(2)(A) Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the Administrator. Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

(B) Whenever a State reviews water quality standards pursuant to paragraph (1) of this subsection, or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria for all toxic pollutants listed pursuant to section 1317(a)(1) of this title for which criteria have been published under section 1314(a) of this title, the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses. Such criteria shall be specific numerical criteria for such toxic pollutants. Where such numerical criteria are not available, whenever a State reviews water quality standards pursuant to paragraph (1), or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria based on biological monitoring or assessment methods consistent with information published pursuant to section 1314(a)(8) of this title. Nothing in this section shall be construed to limit or delay the use of effluent limitations or other permit conditions based on or involving biological monitoring or assessment methods or previously adopted numerical criteria.

(3) If the Administrator, within sixty days after the date of submission of the revised or new standard, determines that such standard meets the requirements of this chapter, such standard shall thereafter be the water quality standard for the applicable waters of that State. If the Administrator determines that any such revised or new standard is not consistent with the applicable

requirements of this chapter, he shall not later than the ninetieth day after the date of submission of such standard notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standard pursuant to paragraph (4) of this subsection.

(4) The Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the navigable waters involved--

(A) if a revised or new water quality standard submitted by such State under paragraph (3) of this subsection for such waters is determined by the Administrator not to be consistent with the applicable requirements of this chapter, or

(B) in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this chapter.

The Administrator shall promulgate any revised or new standard under this paragraph not later than ninety days after he publishes such proposed standards, unless prior to such promulgation, such State has adopted a revised or new water quality standard which the Administrator determines to be in accordance with this chapter.

(d) Identification of areas with insufficient controls; maximum daily load; certain effluent limitations revision

(1)(A) Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.

(B) Each State shall identify those waters or parts thereof within its boundaries for which controls on thermal discharges under section 1311 of this title are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.

(C) Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

(D) Each State shall estimate for the waters identified in paragraph (1)(B) of this subsection the total maximum daily thermal load required to assure protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal water quality criteria for such protection and propagation in the identified waters or parts thereof.

(2) Each State shall submit to the Administrator from time to time, with the first such submission not later than one hundred and eighty days after the date of publication of the first identification of pollutants under section 1314(a)(2)(D) of this title, for his approval the waters identified and the loads established under paragraphs (1)(A), (1)(B), (1)(C), and (1)(D) of this subsection. The Administrator shall either approve or disapprove such identification and load not later than thirty days after the date of submission. If the Administrator approves such identification and load, such State shall incorporate them into its current plan under subsection (e) of this section. If the Administrator disapproves such identification and load, he shall not later than thirty days after the date of such disapproval identify such waters in such State and establish such loads for such waters as he determines necessary to implement the water quality standards applicable to such waters and upon such identification and establishment the State shall incorporate them into its current plan under subsection (e) of this section.

(3) For the specific purpose of developing information, each State shall identify all waters within its boundaries which it has not identified under paragraph (1)(A) and (1)(B) of this subsection and estimate for such waters the total maximum daily load with seasonal variations and margins of safety, for those pollutants which the Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish, and wildlife.

(4) Limitations on revision of certain effluent limitations

(A) Standard not attained

For waters identified under paragraph (1)(A) where the applicable water quality standard has not yet been attained, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section may be revised only if (i) the cumulative effect of all such revised effluent limitations based on such total maximum daily load or waste load allocation will assure the attainment of such water quality standard, or (ii) the designated use which is not being attained is removed in accordance with regulations established under this section.

(B) Standard attained

For waters identified under paragraph (1)(A) where the quality of such waters equals or exceeds levels necessary to protect the designated use for such waters or otherwise required by applicable water quality standards, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section, or any water quality standard established under this section, or any other permitting standard may be revised only if such revision is subject to and consistent with the antidegradation policy established under this section.

(e) Continuing planning process

(1) Each State shall have a continuing planning process approved under paragraph (2) of this subsection which is consistent with this chapter.

(2) Each State shall submit not later than 120 days after October 18, 1972, to the Administrator for his approval a proposed continuing planning process which is consistent with this chapter. Not later than thirty days after the date of submission of such a process the Administrator shall either approve or disapprove such process. The Administrator shall from time to time review each State's approved planning process for the purpose of insuring that such planning process is at all times consistent with this

§ 1313. Water quality standards and implementation plans, 33 USCA § 1313

chapter. The Administrator shall not approve any State permit program under subchapter IV of this chapter for any State which does not have an approved continuing planning process under this section.

(3) The Administrator shall approve any continuing planning process submitted to him under this section which will result in plans for all navigable waters within such State, which include, but are not limited to, the following:

(A) effluent limitations and schedules of compliance at least as stringent as those required by section 1311(b)(1), section 1311(b)(2), section 1316, and section 1317 of this title, and at least as stringent as any requirements contained in any applicable water quality standard in effect under authority of this section;

(B) the incorporation of all elements of any applicable area-wide waste management plans under section 1288 of this title, and applicable basin plans under section 1289 of this title;

(C) total maximum daily load for pollutants in accordance with subsection (d) of this section;

(D) procedures for revision;

(E) adequate authority for intergovernmental cooperation;

(F) adequate implementation, including schedules of compliance, for revised or new water quality standards, under subsection (c) of this section;

(G) controls over the disposition of all residual waste from any water treatment processing;

(H) an inventory and ranking, in order of priority, of needs for construction of waste treatment works required to meet the applicable requirements of sections 1311 and 1312 of this title.

(f) Earlier compliance

Nothing in this section shall be construed to affect any effluent limitation, or schedule of compliance required by any State to be implemented prior to the dates set forth in sections 1311(b)(1) and 1311(b)(2) of this title nor to preclude any State from requiring compliance with any effluent limitation or schedule of compliance at dates earlier than such dates.

(g) Heat standards

Water quality standards relating to heat shall be consistent with the requirements of section 1326 of this title.

(h) Thermal water quality standards

For the purposes of this chapter the term "water quality standards" includes thermal water quality standards.

(i) Coastal recreation water quality criteria

(1) Adoption by States

(A) Initial criteria and standards

Not later than 42 months after October 10, 2000, each State having coastal recreation waters shall adopt and submit to the Administrator water quality criteria and standards for the coastal recreation waters of the State for those pathogens and pathogen indicators for which the Administrator has published criteria under section 1314(a) of this title.

(B) New or revised criteria and standards

Not later than 36 months after the date of publication by the Administrator of new or revised water quality criteria under section 1314(a)(9) of this title, each State having coastal recreation waters shall adopt and submit to the Administrator new or revised water quality standards for the coastal recreation waters of the State for all pathogens and pathogen indicators to which the new or revised water quality criteria are applicable.

(2) Failure of States to adopt

(A) In general

If a State fails to adopt water quality criteria and standards in accordance with paragraph (1)(A) that are as protective of human health as the criteria for pathogens and pathogen indicators for coastal recreation waters published by the Administrator, the Administrator shall promptly propose regulations for the State setting forth revised or new water quality standards for pathogens and pathogen indicators described in paragraph (1)(A) for coastal recreation waters of the State.

(B) Exception

If the Administrator proposes regulations for a State described in subparagraph (A) under subsection (c)(4)(B) of this section, the Administrator shall publish any revised or new standard under this subsection not later than 42 months after October 10, 2000.

(3) Applicability

Except as expressly provided by this subsection, the requirements and procedures of subsection (c) of this section apply to this subsection, including the requirement in subsection (c)(2)(A) of this section that the criteria protect public health and welfare.

CREDIT(S)

(June 30, 1948, c. 758, Title III, § 303, as added Oct. 18, 1972, Pub.L. 92-500, § 2, 86 Stat. 846; amended Feb. 4, 1987, Pub.L. 100-4, Title III, § 308(d), Title IV, § 404(b), 101 Stat. 39, 68; Oct. 10, 2000, Pub.L. 106-284, § 2, 114 Stat. 870.)

Notes of Decisions (122)

§ 1313. Water quality standards and implementation plans, 33 USCA § 1313

33 U.S.C.A. § 1313, 33 USCA § 1313

Current through P.L. 113-57 (excluding P.L. 113-54 and 113-56) approved 12-9-13

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Code of Federal Regulations

Title 40. Protection of Environment

Chapter I. Environmental Protection Agency (Refs & Annos)

Subchapter D. Water Programs

Part 130. Water Quality Planning and Management (Refs & Annos)

40 C.F.R. § 130.2

§ 130.2 Definitions.

Currentness

- (a) The Act. The Clean Water Act, as amended, 33 U.S.C. 1251 et seq.
- (b) Indian Tribe. Any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian reservation.
- (c) Pollution. The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.
- (d) Water quality standards (WQS). Provisions of State or Federal law which consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.
- (e) Load or loading. An amount of matter or thermal energy that is introduced into a receiving water; to introduce matter or thermal energy into a receiving water. Loading may be either man-caused (pollutant loading) or natural (natural background loading).
- (f) Loading capacity. The greatest amount of loading that a water can receive without violating water quality standards.
- (g) Load allocation (LA). The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Wherever possible, natural and nonpoint source loads should be distinguished.
- (h) Wasteload allocation (WLA). The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation.
- (i) Total maximum daily load (TMDL). The sum of the individual WLAs for point sources and LAs for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. If Best Management Practices (BMPs)

§ 130.2 Definitions., 40 C.F.R. § 130.2

or other nonpoint source pollution controls make more stringent load allocations practicable, then wasteload allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs.

(j) **Water quality limited segment.** Any segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b) and 306 of the Act.

(k) **Water quality management (WQM) plan.** A State or areawide waste treatment management plan developed and updated in accordance with the provisions of sections 205(j), 208 and 303 of the Act and this regulation.

(l) **Areawide agency.** An agency designated under section 208 of the Act, which has responsibilities for WQM planning within a specified area of a State.

(m) **Best Management Practice (BMP).** Methods, measures or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters.

(n) **Designated management agency (DMA).** An agency identified by a WQM plan and designated by the Governor to implement specific control recommendations.

Credits

[54 FR 14359, April 11, 1989; 65 FR 43662, July 13, 2000; 68 FR 13608, March 19, 2003]

SOURCE: 50 FR 1779, Jan. 11, 1985; 66 FR 53048, Oct. 18, 2001; 68 FR 13608, March 19, 2003, unless otherwise noted.

AUTHORITY: 33 U.S.C. 1251 et seq.

Notes of Decisions (5)

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Code of Federal Regulations

Title 40. Protection of Environment

Chapter I. Environmental Protection Agency (Refs & Annos)

Subchapter D. Water Programs

Part 130. Water Quality Planning and Management (Refs & Annos)

40 C.F.R. § 130.6

§ 130.6 Water quality management plans.

Currentness

(a) Water quality management (WQM) plans. WQM plans consist of initial plans produced in accordance with sections 208 and 303(e) of the Act and certified and approved updates to those plans. Continuing water quality planning shall be based upon WQM plans and water quality problems identified in the latest 305(b) reports. State water quality planning should focus annually on priority issues and geographic areas and on the development of water quality controls leading to implementation measures. Water quality planning directed at the removal of conditions placed on previously certified and approved WQM plans should focus on removal of conditions which will lead to control decisions.

(b) Use of WQM plans. WQM plans are used to direct implementation. WQM plans draw upon the water quality assessments to identify priority point and nonpoint water quality problems, consider alternative solutions and recommend control measures, including the financial and institutional measures necessary for implementing recommended solutions. State annual work programs shall be based upon the priority issues identified in the State WQM plan.

(c) WQM plan elements. Sections 205(j), 208 and 303 of the Act specify water quality planning requirements. The following plan elements shall be included in the WQM plan or referenced as part of the WQM plan if contained in separate documents when they are needed to address water quality problems.

(1) Total maximum daily loads. TMDLs in accordance with sections 303(d) and 303(e)(3)(C) of the Act and § 130.7 of this part.

(2) Effluent limitations. Effluent limitations including water quality based effluent limitations and schedules of compliance in accordance with section 303(e)(3)(A) of the Act and § 130.5 of this part.

(3) Municipal and industrial waste treatment. Identification of anticipated municipal and industrial waste treatment works, including facilities for treatment of stormwater-induced combined sewer overflows; programs to provide necessary financial arrangements for such works; establishment of construction priorities and schedules for initiation and completion of such treatment works including an identification of open space and recreation opportunities from improved water quality in accordance with section 208(b)(2) (A) and (B) of the Act.

(4) Nonpoint source management and control.

(i) The plan shall describe the regulatory and non-regulatory programs, activities and Best Management Practices (BMPs) which the agency has selected as the means to control nonpoint source pollution where necessary to protect or achieve approved water uses. Economic, institutional, and technical factors shall be considered in a continuing process of identifying control needs and evaluating and modifying the BMPs as necessary to achieve water quality goals.

(ii) Regulatory programs shall be identified where they are determined to be necessary by the State to attain or maintain an approved water use or where non-regulatory approaches are inappropriate in accomplishing that objective.

(iii) BMPs shall be identified for the nonpoint sources identified in section 208(b)(2)(F)–(K) of the Act and other nonpoint sources as follows:

(A) Residual waste. Identification of a process to control the disposition of all residual waste in the area which could affect water quality in accordance with section 208(b)(2)(J) of the Act.

(B) Land disposal. Identification of a process to control the disposal of pollutants on land or in subsurface excavations to protect ground and surface water quality in accordance with section 208(b)(2)(K) of the Act.

(C) Agricultural and silvicultural. Identification of procedures to control agricultural and silvicultural sources of pollution in accordance with section 208(b)(2)(F) of the Act.

(D) Mines. Identification of procedures to control mine-related sources of pollution in accordance with section 208(b)(2)(G) of the Act.

(E) Construction. Identification of procedures to control construction related sources of pollution in accordance with section 208(b)(2)(H) of the Act.

(F) Saltwater intrusion. Identification of procedures to control saltwater intrusion in accordance with section 208(b)(2)(I) of the Act.

(G) Urban stormwater. Identification of BMPs for urban stormwater control to achieve water quality goals and fiscal analysis of the necessary capital and operations and maintenance expenditures in accordance with section 208(b)(2)(A) of the Act.

(iv) The nonpoint source plan elements outlined in § 130.6(c) (4)(iii)(A)(G) of this regulation shall be the basis of water quality activities implemented through agreements or memoranda of understanding between EPA and other departments, agencies or instrumentalities of the United States in accordance with section 304(k) of the Act.

(5) Management agencies. Identification of agencies necessary to carry out the plan and provision for adequate authority for intergovernmental cooperation in accordance with sections 208(b)(2)(D) and 303(e)(3)(E) of the Act. Management agencies must demonstrate the legal, institutional, managerial and financial capability and specific activities necessary to carry out their responsibilities in accordance with section 208(c)(2)(A–I) of the Act.

(6) Implementation measures. Identification of implementation measures necessary to carry out the plan, including financing, the time needed to carry out the plan, and the economic, social and environmental impact of carrying out the plan in accordance with section 208(b)(2)(E).

(7) Dredge or fill program. Identification and development of programs for the control of dredge or fill material in accordance with section 208(b)(4)(B) of the Act.

(8) Basin plans. Identification of any relationship to applicable basin plans developed under section 209 of the Act.

(9) Ground water. Identification and development of programs for control of ground-water pollution including the provisions of section 208(b)(2)(K) of the Act. States are not required to develop ground-water WQM plan elements beyond the requirements of section 208(b)(2)(K) of the Act, but may develop a ground-water plan element if they determine it is necessary to address a ground-water quality problem. If a State chooses to develop a ground-water plan element, it should describe the essentials of a State program and should include, but is not limited to:

(i) Overall goals, policies and legislative authorities for protection of ground-water.

(ii) Monitoring and resource assessment programs in accordance with section 106(e)(1) of the Act.

(iii) Programs to control sources of contamination of ground-water including Federal programs delegated to the State and additional programs authorized in State statutes.

(iv) Procedures for coordination of ground-water protection programs among State agencies and with local and Federal agencies.

(v) Procedures for program management and administration including provision of program financing, training and technical assistance, public participation, and emergency management.

(d) Indian Tribes. An Indian Tribe is eligible for the purposes of this rule and the Clean Water Act assistance programs under 40 CFR part 35, subparts A and H if:

(1) The Indian Tribe has a governing body carrying out substantial governmental duties and powers;

(2) The functions to be exercised by the Indian Tribe pertain to the management and protection of water resources which are held by an Indian Tribe, held by the United States in trust for Indians, held by a member of an Indian Tribe if such property interest is subject to a trust restriction on alienation, or otherwise within the borders of an Indian reservation; and

(3) The Indian Tribe is reasonably expected to be capable, in the Regional Administrator's judgment, of carrying out the functions to be exercised in a manner consistent with the terms and purposes of the Clean Water Act and applicable regulations.

(e) Update and certification. State and/or areawide agency WQM plans shall be updated as needed to reflect changing water quality conditions, results of implementation actions, new requirements or to remove conditions in prior conditional or partial plan approvals. Regional Administrators may require that State WQM plans be updated as needed. State Continuing Planning Processes (CPPs) shall specify the process and schedule used to revise WQM plans. The State shall ensure that State and areawide WQM plans together include all necessary plan elements and that such plans are consistent with one another. The Governor or the Governor's designee shall certify by letter to the Regional Administrator for EPA approval that WQM plan updates are consistent with all other parts of the plan. The certification may be contained in the annual State work program.

(f) Consistency. Construction grant and permit decisions must be made in accordance with certified and approved WQM plans as described in § 130.12(a) and 130.12(b).

Credits

[54 FR 14360, April 11, 1989; 59 FR 13818, March 23, 1994; 65 FR 43662, July 13, 2000; 68 FR 13608, March 19, 2003]

SOURCE: 50 FR 1779, Jan. 11, 1985; 66 FR 53048, Oct. 18, 2001; 68 FR 13608, March 19, 2003, unless otherwise noted.

AUTHORITY: 33 U.S.C. 1251 et seq.

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Code of Federal Regulations

Title 40. Protection of Environment

Chapter I. Environmental Protection Agency (Refs & Annos)

Subchapter D. Water Programs

Part 130. Water Quality Planning and Management (Refs & Annos)

40 C.F.R. § 130.7

§ 130.7 Total maximum daily loads (TMDL) and individual water quality-based effluent limitations.

Currentness

<For statute(s) affecting validity, see: 33 USCA § 1313(d)(1)(C).>

(a) General. The process for identifying water quality limited segments still requiring wasteload allocations, load allocations and total maximum daily loads (WLAs/LAs and TMDLs), setting priorities for developing these loads; establishing these loads for segments identified, including water quality monitoring, modeling, data analysis, calculation methods, and list of pollutants to be regulated; submitting the State's list of segments identified, priority ranking, and loads established (WLAs/LAs/TMDLs) to EPA for approval; incorporating the approved loads into the State's WQM plans and NPDES permits; and involving the public, affected dischargers, designated areawide agencies, and local governments in this process shall be clearly described in the State Continuing Planning Process (CPP).

(b) Identification and priority setting for water quality-limited segments still requiring TMDLs.

(1) Each State shall identify those water quality-limited segments still requiring TMDLs within its boundaries for which:

(i) Technology-based effluent limitations required by sections 301(b), 306, 307, or other sections of the Act;

(ii) More stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the Act, or Federal authority (law, regulation, or treaty); and

(iii) Other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters.

(2) Each State shall also identify on the same list developed under paragraph (b)(1) of this section those water quality-limited segments still requiring TMDLs or parts thereof within its boundaries for which controls on thermal discharges under section 301 or State or local requirements are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish and wildlife.

(3) For the purposes of listing waters under § 130.7(b), the term "water quality standard applicable to such waters" and "applicable water quality standards" refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.

(4) The list required under §§ 130.7(b)(1) and 130.7(b)(2) of this section shall include a priority ranking for all listed water quality-limited segments still requiring TMDLs, taking into account the severity of the pollution and the uses to be made of such waters and shall identify the pollutants causing or expected to cause violations of the applicable water quality standards. The priority ranking shall specifically include the identification of waters targeted for TMDL development in the next two years.

(5) Each State shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list required by §§ 130.7(b)(1) and 130.7(b)(2). At a minimum "all existing and readily available water quality-related data and information" includes but is not limited to all of the existing and readily available data and information about the following categories of waters:

(i) Waters identified by the State in its most recent section 305(b) report as "partially meeting" or "not meeting" designated uses or as "threatened";

(ii) Waters for which dilution calculations or predictive models indicate nonattainment of applicable water quality standards;

(iii) Waters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions. These organizations and groups should be actively solicited for research they may be conducting or reporting. For example, university researchers, the United States Department of Agriculture, the National Oceanic and Atmospheric Administration, the United States Geological Survey, and the United States Fish and Wildlife Service are good sources of field data; and

(iv) Waters identified by the State as impaired or threatened in a nonpoint assessment submitted to EPA under section 319 of the CWA or in any updates of the assessment.

(6) Each State shall provide documentation to the Regional Administrator to support the State's determination to list or not to list its waters as required by §§ 130.7(b)(1) and 130.7(b)(2). This documentation shall be submitted to the Regional Administrator together with the list required by §§ 130.7(b)(1) and 130.7(b)(2) and shall include at a minimum:

(i) A description of the methodology used to develop the list; and

(ii) A description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5); and

(iii) A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in § 130.7(b)(5); and

(iv) Any other reasonable information requested by the Regional Administrator. Upon request by the Regional Administrator, each State must demonstrate good cause for not including a water or waters on the list. Good cause includes,

but is not limited to, more recent or accurate data; more sophisticated water quality modeling; flaws in the original analysis that led to the water being listed in the categories in § 130.7(b)(5); or changes in conditions, e.g., new control equipment, or elimination of discharges.

(c) Development of TMDLs and individual water quality based effluent limitations.

(1) Each State shall establish TMDLs for the water quality limited segments identified in paragraph (b)(1) of this section, and in accordance with the priority ranking. For pollutants other than heat, TMDLs shall be established at levels necessary to attain and maintain the applicable narrative and numerical WQS with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. Determinations of TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters.

(i) TMDLs may be established using a pollutant-by-pollutant or biomonitoring approach. In many cases both techniques may be needed. Site-specific information should be used wherever possible.

(ii) TMDLs shall be established for all pollutants preventing or expected to prevent attainment of water quality standards as identified pursuant to paragraph (b)(1) of this section. Calculations to establish TMDLs shall be subject to public review as defined in the State CPP.

(2) Each State shall estimate for the water quality limited segments still requiring TMDLs identified in paragraph (b)(2) of this section, the total maximum daily thermal load which cannot be exceeded in order to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal water quality criteria for protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in the identified waters or parts thereof.

(d) Submission and EPA approval.

(1) Each State shall submit biennially to the Regional Administrator beginning in 1992 the list of waters, pollutants causing impairment, and the priority ranking including waters targeted for TMDL development within the next two years as required under paragraph (b) of this section. For the 1992 biennial submission, these lists are due no later than October 22, 1992. Thereafter, each State shall submit to EPA lists required under paragraph (b) of this section on April 1 of every even-numbered year. For the year 2000 submission, a State must submit a list required under paragraph (b) of this section only if a court order or consent decree, or commitment in a settlement agreement dated prior to January 1, 2000, expressly requires EPA to take action related to that State's year 2000 list. For the year 2002 submission, a State must submit a list required under paragraph (b) of this section by October 1, 2002, unless a court order, consent decree or commitment in a settlement agreement expressly requires EPA to take an action related to that State's 2002 list prior to October 1, 2002, in which case, the State must submit a list by April 1, 2002. The list of waters may be submitted as part of the State's biennial water quality report required by § 130.8 of this part and section 305(b) of the CWA or submitted under separate cover. All TMDLs established under paragraph (c) for water quality limited segments shall continue to be submitted to EPA for review and approval. Schedules for submission of TMDLs shall be determined by the Regional Administrator and the State.

(2) The Regional Administrator shall either approve or disapprove such listing and loadings not later than 30 days after the date of submission. The Regional Administrator shall approve a list developed under § 130.7(b) that is submitted after the effective date of this rule only if it meets the requirements of § 130.7(b). If the Regional Administrator approves such listing and loadings, the State shall incorporate them into its current WQM plan. If the Regional Administrator disapproves such listing and loadings, he shall, not later than 30 days after the date of such disapproval, identify such waters in such State and establish such loads for such waters as determined necessary to implement applicable WQS. The Regional Administrator shall promptly issue a public notice seeking comment on such listing and loadings. After considering public comment and making any revisions he deems appropriate, the Regional Administrator shall transmit the listing and loads to the State, which shall incorporate them into its current WQM plan.

(e) For the specific purpose of developing information and as resources allow, each State shall identify all segments within its boundaries which it has not identified under paragraph (b) of this section and estimate for such waters the TMDLs with seasonal variations and margins of safety, for those pollutants which the Regional Administrator identifies under section 304(a)(2) as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish and wildlife. However, there is no requirement for such loads to be submitted to EPA for approval, and establishing TMDLs for those waters identified in paragraph (b) of this section shall be given higher priority.

Credits

[57 FR 33049, July 24, 1992; 65 FR 17170, March 31, 2000; 65 FR 43663, July 13, 2000; 66 FR 53048, Oct. 18, 2001; 68 FR 13608, March 19, 2003]

SOURCE: 50 FR 1779, Jan. 11, 1985; 66 FR 53048, Oct. 18, 2001; 68 FR 13608, March 19, 2003, unless otherwise noted.

AUTHORITY: 33 U.S.C. 1251 et seq.

Notes of Decisions (6)

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Baldwin's Ohio Revised Code Annotated
Title I. State Government
Chapter 111. Secretary of State (Refs & Annos)
Organization, Powers, and Duties

R.C. § 111.15

111.15 Rules filed; duties of legislative service commission; standards and procedures

Effective: September 29, 2013
Currentness

(A) As used in this section:

(1) "Rule" includes any rule, regulation, bylaw, or standard having a general and uniform operation adopted by an agency under the authority of the laws governing the agency; any appendix to a rule; and any internal management rule. "Rule" does not include any guideline adopted pursuant to section 3301.0714 of the Revised Code, any order respecting the duties of employees, any finding, any determination of a question of law or fact in a matter presented to an agency, or any rule promulgated pursuant to Chapter 119., section 4141.14, division (C)(1) or (2) of section 5117.02, or section 5703.14 of the Revised Code. "Rule" includes any amendment or rescission of a rule.

(2) "Agency" means any governmental entity of the state and includes, but is not limited to, any board, department, division, commission, bureau, society, council, institution, state college or university, community college district, technical college district, or state community college. "Agency" does not include the general assembly, the controlling board, the adjutant general's department, or any court.

(3) "Internal management rule" means any rule, regulation, bylaw, or standard governing the day-to-day staff procedures and operations within an agency.

(4) "Substantive revision" has the same meaning as in division (J) of section 119.01 of the Revised Code.

(B)(1) Any rule, other than a rule of an emergency nature, adopted by any agency pursuant to this section shall be effective on the tenth day after the day on which the rule in final form and in compliance with division (B)(3) of this section is filed as follows:

(a) The rule shall be filed in electronic form with both the secretary of state and the director of the legislative service commission;

(b) The rule shall be filed in electronic form with the joint committee on agency rule review. Division (B)(1)(b) of this section does not apply to any rule to which division (D) of this section does not apply.

An agency that adopts or amends a rule that is subject to division (D) of this section shall assign a review date to the rule that is not later than five years after its effective date. If no review date is assigned to a rule, or if a review date assigned to a rule exceeds the five-year maximum, the review date for the rule is five years after its effective date. A rule with a review date

is subject to review under section 119.032 of the Revised Code. This paragraph does not apply to a rule of a state college or university, community college district, technical college district, or state community college.

If all filings are not completed on the same day, the rule shall be effective on the tenth day after the day on which the latest filing is completed. If an agency in adopting a rule designates an effective date that is later than the effective date provided for by division (B)(1) of this section, the rule if filed as required by such division shall become effective on the later date designated by the agency.

Any rule that is required to be filed under division (B)(1) of this section is also subject to division (D) of this section if not exempted by division (D)(1), (2), (3), (4), (5), (6), (7), or (8) of this section.

If a rule incorporates a text or other material by reference, the agency shall comply with sections 121.71 to 121.76 of the Revised Code.

(2) A rule of an emergency nature necessary for the immediate preservation of the public peace, health, or safety shall state the reasons for the necessity. The emergency rule, in final form and in compliance with division (B)(3) of this section, shall be filed in electronic form with the secretary of state, the director of the legislative service commission, and the joint committee on agency rule review. The emergency rule is effective immediately upon completion of the latest filing, except that if the agency in adopting the emergency rule designates an effective date, or date and time of day, that is later than the effective date and time provided for by division (B)(2) of this section, the emergency rule if filed as required by such division shall become effective at the later date, or later date and time of day, designated by the agency.

An emergency rule becomes invalid at the end of the ninetieth day it is in effect. Prior to that date, the agency may file the emergency rule as a nonemergency rule in compliance with division (B)(1) of this section. The agency may not refile the emergency rule in compliance with division (B)(2) of this section so that, upon the emergency rule becoming invalid under such division, the emergency rule will continue in effect without interruption for another ninety-day period.

(3) An agency shall file a rule under division (B)(1) or (2) of this section in compliance with the following standards and procedures:

(a) The rule shall be numbered in accordance with the numbering system devised by the director for the Ohio administrative code.

(b) The rule shall be prepared and submitted in compliance with the rules of the legislative service commission.

(c) The rule shall clearly state the date on which it is to be effective and the date on which it will expire, if known.

(d) Each rule that amends or rescinds another rule shall clearly refer to the rule that is amended or rescinded. Each amendment shall fully restate the rule as amended.

If the director of the legislative service commission or the director's designee gives an agency notice pursuant to section 103.05 of the Revised Code that a rule filed by the agency is not in compliance with the rules of the legislative service commission, the agency shall within thirty days after receipt of the notice conform the rule to the rules of the commission as directed in the notice.

(C) All rules filed pursuant to divisions (B)(1)(a) and (2) of this section shall be recorded by the secretary of state and the director under the title of the agency adopting the rule and shall be numbered according to the numbering system devised by the director. The secretary of state and the director shall preserve the rules in an accessible manner. Each such rule shall be a public record open to public inspection and may be transmitted to any law publishing company that wishes to reproduce it.

(D) At least sixty-five days before a board, commission, department, division, or bureau of the government of the state files a rule under division (B)(1) of this section, it shall file the full text of the proposed rule in electronic form with the joint committee on agency rule review, and the proposed rule is subject to legislative review and invalidation under division (I) of section 119.03 of the Revised Code. If a state board, commission, department, division, or bureau makes a substantive revision in a proposed rule after it is filed with the joint committee, the state board, commission, department, division, or bureau shall promptly file the full text of the proposed rule in its revised form in electronic form with the joint committee. The latest version of a proposed rule as filed with the joint committee supersedes each earlier version of the text of the same proposed rule. A state board, commission, department, division, or bureau shall also file the rule summary and fiscal analysis prepared under section 127.18 of the Revised Code in electronic form along with a proposed rule, and along with a proposed rule in revised form, that is filed under this division. If a proposed rule has an adverse impact on businesses, the state board, commission, department, division, or bureau also shall file the business impact analysis, any recommendations received from the common sense initiative office, and the associated memorandum of response, if any, in electronic form along with the proposed rule, or the proposed rule in revised form, that is filed under this division.

As used in this division, "commission" includes the public utilities commission when adopting rules under a federal or state statute.

This division does not apply to any of the following:

- (1) A proposed rule of an emergency nature;
- (2) A rule proposed under section 1121.05, 1121.06, 1155.18, 1163.22, 1349.33, 1707.201, 1733.412, 4123.29, 4123.34, 4123.341, 4123.342, 4123.40, 4123.411, 4123.44, or 4123.442 of the Revised Code;
- (3) A rule proposed by an agency other than a board, commission, department, division, or bureau of the government of the state;
- (4) A proposed internal management rule of a board, commission, department, division, or bureau of the government of the state;
- (5) Any proposed rule that must be adopted verbatim by an agency pursuant to federal law or rule, to become effective within sixty days of adoption, in order to continue the operation of a federally reimbursed program in this state, so long as the proposed rule contains both of the following:
 - (a) A statement that it is proposed for the purpose of complying with a federal law or rule;
 - (b) A citation to the federal law or rule that requires verbatim compliance.

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(6) An initial rule proposed by the director of health to impose safety standards and quality-of-care standards with respect to a health service specified in section 3702.11 of the Revised Code, or an initial rule proposed by the director to impose quality standards on a facility listed in division (A)(4) of section 3702.30 of the Revised Code, if section 3702.12 of the Revised Code requires that the rule be adopted under this section;

(7) A rule of the state lottery commission pertaining to instant game rules.

If a rule is exempt from legislative review under division (D)(5) of this section, and if the federal law or rule pursuant to which the rule was adopted expires, is repealed or rescinded, or otherwise terminates, the rule is thereafter subject to legislative review under division (D) of this section.

(E) Whenever a state board, commission, department, division, or bureau files a proposed rule or a proposed rule in revised form under division (D) of this section, it shall also file the full text of the same proposed rule or proposed rule in revised form in electronic form with the secretary of state and the director of the legislative service commission. A state board, commission, department, division, or bureau shall file the rule summary and fiscal analysis prepared under section 127.18 of the Revised Code in electronic form along with a proposed rule or proposed rule in revised form that is filed with the secretary of state or the director of the legislative service commission.

CREDIT(S)

(2013 H 59, eff. 9-29-13; 2013 S 67, eff. 9-4-13; 2011 S 2, eff. 1-1-12; 2006 H 197, eff. 11-13-06; 2005 H 81, eff. 4-14-06; 2002 S 265, eff. 9-17-02; 2002 S 138, eff. 6-18-02; 2002 H 386, eff. 5-24-02; 1999 S 11, § 6, eff. 4-1-02; 1999 S 11, § 3, eff. 4-1-01; 1999 S 11, § 1, eff. 9-15-99; 1998 H 850, eff. 3-18-99; 1998 H 562, eff. 9-30-98; 1997 S 130, eff. 9-18-97; 1997 H 215, eff. 6-30-97; 1996 S 82, eff. 3-7-97; 1996 H 538, eff. 1-1-97; 1996 S 211, eff. 9-26-96; 1996 H 473, eff. 9-26-96; 1995 S 156, eff. 6-30-95; 1995 S 50, eff. 4-20-95; 1994 H 695, eff. 9-29-94; 1992 S 359, eff. 12-22-92; 1992 H 437; 1985 S 269, H 201; 1984 S 239, H 244; 1981 H 694, H 1; 1980 H 440; 1979 H 204, H 657, S 8; 1978 S 321; 1977 H 25, H 257; 1976 H 317; 1953 H 1; GC 161-1)

Notes of Decisions (26)

R.C. § 111.15, OH ST § 111.15

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Baldwin's Ohio Revised Code Annotated
Title I. State Government
Chapter 119. Administrative Procedure (Refs & Annos)
Definitions

R.C. § 119.01

119.01 Definitions

Effective: September 29, 2013
Currentness

As used in sections 119.01 to 119.13 of the Revised Code:

(A)(1) "Agency" means, except as limited by this division, any official, board, or commission having authority to promulgate rules or make adjudications in the civil service commission, the division of liquor control, the department of taxation, the industrial commission, the bureau of workers' compensation, the functions of any administrative or executive officer, department, division, bureau, board, or commission of the government of the state specifically made subject to sections 119.01 to 119.13 of the Revised Code, and the licensing functions of any administrative or executive officer, department, division, bureau, board, or commission of the government of the state having the authority or responsibility of issuing, suspending, revoking, or canceling licenses.

Except as otherwise provided in division (I) of this section, sections 119.01 to 119.13 of the Revised Code do not apply to the public utilities commission. Sections 119.01 to 119.13 of the Revised Code do not apply to the utility radiological safety board; to the controlling board; to actions of the superintendent of financial institutions and the superintendent of insurance in the taking possession of, and rehabilitation or liquidation of, the business and property of banks, savings and loan associations, savings banks, credit unions, insurance companies, associations, reciprocal fraternal benefit societies, and bond investment companies; to any action taken by the division of securities under section 1707.201 of the Revised Code; or to any action that may be taken by the superintendent of financial institutions under section 1113.03, 1121.06, 1121.10, 1125.09, 1125.12, 1125.18, 1157.09, 1157.12, 1157.18, 1165.09, 1165.12, 1165.18, 1349.33, 1733.35, 1733.361, 1733.37, or 1761.03 of the Revised Code.

Sections 119.01 to 119.13 of the Revised Code do not apply to actions of the industrial commission or the bureau of workers' compensation under sections 4123.01 to 4123.94 of the Revised Code with respect to all matters of adjudication, or to the actions of the industrial commission, bureau of workers' compensation board of directors, and bureau of workers' compensation under division (D) of section 4121.32, sections 4123.29, 4123.34, 4123.341, 4123.342, 4123.40, 4123.411, 4123.44, 4123.442, 4127.07, divisions (B), (C), and (E) of section 4131.04, and divisions (B), (C), and (E) of section 4131.14 of the Revised Code with respect to all matters concerning the establishment of premium, contribution, and assessment rates.

(2) "Agency" also means any official or work unit having authority to promulgate rules or make adjudications in the department of job and family services, but only with respect to both of the following:

(a) The adoption, amendment, or rescission of rules that section 5101.09 of the Revised Code requires be adopted in accordance with this chapter;

(b) The issuance, suspension, revocation, or cancellation of licenses.

(B) "License" means any license, permit, certificate, commission, or charter issued by any agency. "License" does not include any arrangement whereby a person or government entity furnishes medicaid services under a provider agreement with the department of medicaid.

(C) "Rule" means any rule, regulation, or standard, having a general and uniform operation, adopted, promulgated, and enforced by any agency under the authority of the laws governing such agency, and includes any appendix to a rule. "Rule" does not include any internal management rule of an agency unless the internal management rule affects private rights and does not include any guideline adopted pursuant to section 3301.0714 of the Revised Code.

(D) "Adjudication" means the determination by the highest or ultimate authority of an agency of the rights, duties, privileges, benefits, or legal relationships of a specified person, but does not include the issuance of a license in response to an application with respect to which no question is raised, nor other acts of a ministerial nature.

(E) "Hearing" means a public hearing by any agency in compliance with procedural safeguards afforded by sections 119.01 to 119.13 of the Revised Code.

(F) "Person" means a person, firm, corporation, association, or partnership.

(G) "Party" means the person whose interests are the subject of an adjudication by an agency.

(H) "Appeal" means the procedure by which a person, aggrieved by a finding, decision, order, or adjudication of any agency, invokes the jurisdiction of a court.

(I) "Rule-making agency" means any board, commission, department, division, or bureau of the government of the state that is required to file proposed rules, amendments, or rescissions under division (D) of section 111.15 of the Revised Code and any agency that is required to file proposed rules, amendments, or rescissions under divisions (B) and (H) of section 119.03 of the Revised Code. "Rule-making agency" includes the public utilities commission. "Rule-making agency" does not include any state-supported college or university.

(J) "Substantive revision" means any addition to, elimination from, or other change in a rule, an amendment of a rule, or a rescission of a rule, whether of a substantive or procedural nature, that changes any of the following:

(1) That which the rule, amendment, or rescission permits, authorizes, regulates, requires, prohibits, penalizes, rewards, or otherwise affects;

(2) The scope or application of the rule, amendment, or rescission.

(K) "Internal management rule" means any rule, regulation, or standard governing the day-to-day staff procedures and operations within an agency.

CREDIT(S)

(2013 H 59, eff. 9-29-13; 2010 H 292, eff. 9-13-10; 2007 H 100, eff. 9-10-07; 2005 H 81, eff. 4-14-06; 2002 S 138, eff. 6-18-02; 2002 H 386, eff. 5-24-02; 1999 H 470, eff. 7-1-00; 1998 H 850, eff. 3-18-99; 1997 H 215, eff. 6-30-97; 1996 S 82, eff. 3-7-97; 1996 H 538, eff. 1-1-97; 1996 S 293, eff. 9-26-96 (General Effective Date); 1995 S 162, eff. 10-29-95; 1995 H 7, eff. 9-1-95; 1994 H 695, eff. 9-29-94; 1992 H 437, eff. 4-30-92; 1989 H 111; 1985 H 201; 1984 H 244; 1983 H 260; 1980 H 403; 1979 H 204; 1977 H 257; 1976 S 545, H 920; 1975 H 1; 1973 H 366; 1969 H 1; 132 v S 97; 1953 H 1; GC 154-62)

Notes of Decisions (140)

R.C. § 119.01, OH ST § 119.01

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Baldwin's Ohio Revised Code Annotated
Title I. State Government
Chapter 119. Administrative Procedure (Refs & Annos)
Agency Rules

R.C. § 119.02

119.02 Compliance; validity of rules

Currentness

Every agency authorized by law to adopt, amend, or rescind rules shall comply with the procedure prescribed in sections 119.01 to 119.13, inclusive, of the Revised Code, for the adoption, amendment, or rescission of rules. Unless otherwise specifically provided by law, the failure of any agency to comply with such procedure shall invalidate any rule or amendment adopted, or the rescission of any rule.

CREDIT(S)

(1953 H 1, eff. 10-1-53; GC 154-63)

Notes of Decisions (54)

R.C. § 119.02, OH ST § 119.02

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Baldwin's Ohio Revised Code Annotated
Title I. State Government
Chapter 119. Administrative Procedure (Refs & Annos)
Agency Rules

R.C. § 119.03

119.03 Procedure for adoption, amendment, or rescission of rules; fiscal analyses

Effective: January 1, 2012
Currentness

In the adoption, amendment, or rescission of any rule, an agency shall comply with the following procedure:

(A) Reasonable public notice shall be given in the register of Ohio at least thirty days prior to the date set for a hearing, in the form the agency determines. The agency shall file copies of the public notice under division (B) of this section. (The agency gives public notice in the register of Ohio when the public notice is published in the register under that division.)

The public notice shall include:

- (1) A statement of the agency's intention to consider adopting, amending, or rescinding a rule;
- (2) A synopsis of the proposed rule, amendment, or rule to be rescinded or a general statement of the subject matter to which the proposed rule, amendment, or rescission relates;
- (3) A statement of the reason or purpose for adopting, amending, or rescinding the rule;
- (4) The date, time, and place of a hearing on the proposed action, which shall be not earlier than the thirty-first nor later than the fortieth day after the proposed rule, amendment, or rescission is filed under division (B) of this section.

In addition to public notice given in the register of Ohio, the agency may give whatever other notice it reasonably considers necessary to ensure notice constructively is given to all persons who are subject to or affected by the proposed rule, amendment, or rescission.

The agency shall provide a copy of the public notice required under division (A) of this section to any person who requests it and pays a reasonable fee, not to exceed the cost of copying and mailing.

(B) The full text of the proposed rule, amendment, or rule to be rescinded, accompanied by the public notice required under division (A) of this section, shall be filed in electronic form with the secretary of state and with the director of the legislative service commission. (If in compliance with this division an agency files more than one proposed rule, amendment, or rescission at the same time, and has prepared a public notice under division (A) of this section that applies to more than one of the proposed rules, amendments, or rescissions, the agency shall file only one notice with the secretary of state and with the director for all of the proposed rules, amendments, or rescissions to which the notice applies.) The proposed rule, amendment, or rescission

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and public notice shall be filed as required by this division at least sixty-five days prior to the date on which the agency, in accordance with division (D) of this section, issues an order adopting the proposed rule, amendment, or rescission.

If the proposed rule, amendment, or rescission incorporates a text or other material by reference, the agency shall comply with sections 121.71 to 121.76 of the Revised Code.

The proposed rule, amendment, or rescission shall be available for at least thirty days prior to the date of the hearing at the office of the agency in printed or other legible form without charge to any person affected by the proposal. Failure to furnish such text to any person requesting it shall not invalidate any action of the agency in connection therewith.

If the agency files a substantive revision in the text of the proposed rule, amendment, or rescission under division (H) of this section, it shall also promptly file the full text of the proposed rule, amendment, or rescission in its revised form in electronic form with the secretary of state and with the director of the legislative service commission.

The agency shall file the rule summary and fiscal analysis prepared under section 127.18 of the Revised Code in electronic form along with a proposed rule, amendment, or rescission or proposed rule, amendment, or rescission in revised form that is filed with the secretary of state or the director of the legislative service commission.

The director of the legislative service commission shall publish in the register of Ohio the full text of the original and each revised version of a proposed rule, amendment, or rescission; the full text of a public notice; and the full text of a rule summary and fiscal analysis that is filed with the director under this division.

(C) On the date and at the time and place designated in the notice, the agency shall conduct a public hearing at which any person affected by the proposed action of the agency may appear and be heard in person, by the person's attorney, or both, may present the person's position, arguments, or contentions, orally or in writing, offer and examine witnesses, and present evidence tending to show that the proposed rule, amendment, or rescission, if adopted or effectuated, will be unreasonable or unlawful. An agency may permit persons affected by the proposed rule, amendment, or rescission to present their positions, arguments, or contentions in writing, not only at the hearing, but also for a reasonable period before, after, or both before and after the hearing. A person who presents a position or arguments or contentions in writing before or after the hearing is not required to appear at the hearing.

At the hearing, the testimony shall be recorded. Such record shall be made at the expense of the agency. The agency is required to transcribe a record that is not sight readable only if a person requests transcription of all or part of the record and agrees to reimburse the agency for the costs of the transcription. An agency may require the person to pay in advance all or part of the cost of the transcription.

In any hearing under this section the agency may administer oaths or affirmations.

(D) After complying with divisions (A), (B), (C), and (H) of this section, and when the time for legislative review and invalidation under division (I) of this section has expired, the agency may issue an order adopting the proposed rule or the proposed amendment or rescission of the rule, consistent with the synopsis or general statement included in the public notice. At that time the agency shall designate the effective date of the rule, amendment, or rescission, which shall not be earlier than the tenth day after the rule, amendment, or rescission has been filed in its final form as provided in section 119.04 of the Revised Code.

(E) Prior to the effective date of a rule, amendment, or rescission, the agency shall make a reasonable effort to inform those affected by the rule, amendment, or rescission and to have available for distribution to those requesting it the full text of the rule as adopted or as amended.

(F) If the governor, upon the request of an agency, determines that an emergency requires the immediate adoption, amendment, or rescission of a rule, the governor shall issue an order, the text of which shall be filed in electronic form with the agency, the secretary of state, the director of the legislative service commission, and the joint committee on agency rule review, that the procedure prescribed by this section with respect to the adoption, amendment, or rescission of a specified rule is suspended. The agency may then adopt immediately the emergency rule, amendment, or rescission and it becomes effective on the date the rule, amendment, or rescission, in final form and in compliance with division (A)(2) of section 119.04 of the Revised Code, is filed in electronic form with the secretary of state, the director of the legislative service commission, and the joint committee on agency rule review. If all filings are not completed on the same day, the emergency rule, amendment, or rescission shall be effective on the day on which the latest filing is completed. The director shall publish the full text of the emergency rule, amendment, or rescission in the register of Ohio.

The emergency rule, amendment, or rescission shall become invalid at the end of the ninetieth day it is in effect. Prior to that date the agency may adopt the emergency rule, amendment, or rescission as a nonemergency rule, amendment, or rescission by complying with the procedure prescribed by this section for the adoption, amendment, and rescission of nonemergency rules. The agency shall not use the procedure of this division to readopt the emergency rule, amendment, or rescission so that, upon the emergency rule, amendment, or rescission becoming invalid under this division, the emergency rule, amendment, or rescission will continue in effect without interruption for another ninety-day period, except when division (I)(2)(a) of this section prevents the agency from adopting the emergency rule, amendment, or rescission as a nonemergency rule, amendment, or rescission within the ninety-day period.

This division does not apply to the adoption of any emergency rule, amendment, or rescission by the tax commissioner under division (C)(2) of section 5117.02 of the Revised Code.

(G) Rules adopted by an authority within the department of job and family services for the administration or enforcement of Chapter 4141. of the Revised Code or of the department of taxation shall be effective without a hearing as provided by this section if the statutes pertaining to such agency specifically give a right of appeal to the board of tax appeals or to a higher authority within the agency or to a court, and also give the appellant a right to a hearing on such appeal. This division does not apply to the adoption of any rule, amendment, or rescission by the tax commissioner under division (C)(1) or (2) of section 5117.02 of the Revised Code, or deny the right to file an action for declaratory judgment as provided in Chapter 2721. of the Revised Code from the decision of the board of tax appeals or of the higher authority within such agency.

(H) When any agency files a proposed rule, amendment, or rescission under division (B) of this section, it shall also file in electronic form with the joint committee on agency rule review the full text of the proposed rule, amendment, or rule to be rescinded in the same form and the public notice required under division (A) of this section. (If in compliance with this division an agency files more than one proposed rule, amendment, or rescission at the same time, and has given a public notice under division (A) of this section that applies to more than one of the proposed rules, amendments, or rescissions, the agency shall file only one notice with the joint committee for all of the proposed rules, amendments, or rescissions to which the notice applies.) If the agency makes a substantive revision in a proposed rule, amendment, or rescission after it is filed with the joint committee, the agency shall promptly file the full text of the proposed rule, amendment, or rescission in its revised form in electronic form with the joint committee. The latest version of a proposed rule, amendment, or rescission as filed with the joint committee supersedes each earlier version of the text of the same proposed rule, amendment, or rescission. An agency shall file the rule summary and fiscal analysis prepared under section 127.18 of the Revised Code in electronic form along with a

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proposed rule, amendment, or rescission, and along with a proposed rule, amendment, or rescission in revised form, that is filed under this division. If a proposed rule, amendment, or rescission has an adverse impact on businesses, the agency also shall file the business impact analysis, any recommendations received from the common sense initiative office, and the agency's memorandum of response, if any, in electronic form along with the proposed rule, amendment, or rescission, or along with the proposed rule, amendment, or rescission in revised form, that is filed under this division.

This division does not apply to:

- (1) An emergency rule, amendment, or rescission;
- (2) Any proposed rule, amendment, or rescission that must be adopted verbatim by an agency pursuant to federal law or rule, to become effective within sixty days of adoption, in order to continue the operation of a federally reimbursed program in this state, so long as the proposed rule contains both of the following:
 - (a) A statement that it is proposed for the purpose of complying with a federal law or rule;
 - (b) A citation to the federal law or rule that requires verbatim compliance.

If a rule or amendment is exempt from legislative review under division (H)(2) of this section, and if the federal law or rule pursuant to which the rule or amendment was adopted expires, is repealed or rescinded, or otherwise terminates, the rule or amendment, or its rescission, is thereafter subject to legislative review under division (H) of this section.

(I)(1) The joint committee on agency rule review may recommend the adoption of a concurrent resolution invalidating a proposed rule, amendment, rescission, or part thereof if it finds any of the following:

- (a) That the rule-making agency has exceeded the scope of its statutory authority in proposing the rule, amendment, or rescission;
- (b) That the proposed rule, amendment, or rescission conflicts with another rule, amendment, or rescission adopted by the same or a different rule-making agency;
- (c) That the proposed rule, amendment, or rescission conflicts with the legislative intent in enacting the statute under which the rule-making agency proposed the rule, amendment, or rescission;
- (d) That the rule-making agency has failed to prepare a complete and accurate rule summary and fiscal analysis of the proposed rule, amendment, or rescission as required by section 127.18 of the Revised Code;
- (e) That the proposed rule, amendment, or rescission incorporates a text or other material by reference and either the rule-making agency has failed to file the text or other material incorporated by reference as required by section 121.73 of the Revised Code or, in the case of a proposed rule or amendment, the incorporation by reference fails to meet the standards stated in section 121.72, 121.75, or 121.76 of the Revised Code;

(f) That the rule-making agency has failed to demonstrate through the business impact analysis, recommendations from the common sense initiative office, and the memorandum of response the agency has filed under division (H) of this section that the regulatory intent of the proposed rule, amendment, or rescission justifies its adverse impact on businesses in this state.

The joint committee shall not hold its public hearing on a proposed rule, amendment, or rescission earlier than the forty-first day after the original version of the proposed rule, amendment, or rescission was filed with the joint committee.

The house of representatives and senate may adopt a concurrent resolution invalidating a proposed rule, amendment, rescission, or part thereof. The concurrent resolution shall state which of the specific rules, amendments, rescissions, or parts thereof are invalidated. A concurrent resolution invalidating a proposed rule, amendment, or rescission shall be adopted not later than the sixty-fifth day after the original version of the text of the proposed rule, amendment, or rescission is filed with the joint committee, except that if more than thirty-five days after the original version is filed the rule-making agency either files a revised version of the text of the proposed rule, amendment, or rescission, or revises the rule summary and fiscal analysis in accordance with division (I)(4) of this section, a concurrent resolution invalidating the proposed rule, amendment, or rescission shall be adopted not later than the thirtieth day after the revised version of the proposed rule or rule summary and fiscal analysis is filed. If, after the joint committee on agency rule review recommends the adoption of a concurrent resolution invalidating a proposed rule, amendment, rescission, or part thereof, the house of representatives or senate does not, within the time remaining for adoption of the concurrent resolution, hold five floor sessions at which its journal records a roll call vote disclosing a sufficient number of members in attendance to pass a bill, the time within which that house may adopt the concurrent resolution is extended until it has held five such floor sessions.

Within five days after the adoption of a concurrent resolution invalidating a proposed rule, amendment, rescission, or part thereof, the clerk of the senate shall send the rule-making agency, the secretary of state, and the director of the legislative service commission in electronic form a certified text of the resolution together with a certification stating the date on which the resolution takes effect. The secretary of state and the director of the legislative service commission shall each note the invalidity of the proposed rule, amendment, rescission, or part thereof, and shall each remove the invalid proposed rule, amendment, rescission, or part thereof from the file of proposed rules. The rule-making agency shall not proceed to adopt in accordance with division (D) of this section, or to file in accordance with division (B)(1) of section 111.15 of the Revised Code, any version of a proposed rule, amendment, rescission, or part thereof that has been invalidated by concurrent resolution.

Unless the house of representatives and senate adopt a concurrent resolution invalidating a proposed rule, amendment, rescission, or part thereof within the time specified by this division, the rule-making agency may proceed to adopt in accordance with division (D) of this section, or to file in accordance with division (B)(1) of section 111.15 of the Revised Code, the latest version of the proposed rule, amendment, or rescission as filed with the joint committee. If by concurrent resolution certain of the rules, amendments, rescissions, or parts thereof are specifically invalidated, the rule-making agency may proceed to adopt, in accordance with division (D) of this section, or to file in accordance with division (B)(1) of section 111.15 of the Revised Code, the latest version of the proposed rules, amendments, rescissions, or parts thereof as filed with the joint committee that are not specifically invalidated. The rule-making agency may not revise or amend any proposed rule, amendment, rescission, or part thereof that has not been invalidated except as provided in this chapter or in section 111.15 of the Revised Code.

(2)(a) A proposed rule, amendment, or rescission that is filed with the joint committee under division (H) of this section or division (D) of section 111.15 of the Revised Code shall be carried over for legislative review to the next succeeding regular session of the general assembly if the original or any revised version of the proposed rule, amendment, or rescission is filed with the joint committee on or after the first day of December of any year.

(b) The latest version of any proposed rule, amendment, or rescission that is subject to division (I)(2)(a) of this section, as filed with the joint committee, is subject to legislative review and invalidation in the next succeeding regular session of the general

assembly in the same manner as if it were the original version of a proposed rule, amendment, or rescission that had been filed with the joint committee for the first time on the first day of the session. A rule-making agency shall not adopt in accordance with division (D) of this section, or file in accordance with division (B)(1) of section 111.15 of the Revised Code, any version of a proposed rule, amendment, or rescission that is subject to division (I)(2)(a) of this section until the time for legislative review and invalidation, as contemplated by division (I)(2)(b) of this section, has expired.

(3) Invalidation of any version of a proposed rule, amendment, rescission, or part thereof by concurrent resolution shall prevent the rule-making agency from instituting or continuing proceedings to adopt any version of the same proposed rule, amendment, rescission, or part thereof for the duration of the general assembly that invalidated the proposed rule, amendment, rescission, or part thereof unless the same general assembly adopts a concurrent resolution permitting the rule-making agency to institute or continue such proceedings.

The failure of the general assembly to invalidate a proposed rule, amendment, rescission, or part thereof under this section shall not be construed as a ratification of the lawfulness or reasonableness of the proposed rule, amendment, rescission, or any part thereof or of the validity of the procedure by which the proposed rule, amendment, rescission, or any part thereof was proposed or adopted.

(4) In lieu of recommending a concurrent resolution to invalidate a proposed rule, amendment, rescission, or part thereof because the rule-making agency has failed to prepare a complete and accurate fiscal analysis, the joint committee on agency rule review may issue, on a one-time basis, for rules, amendments, rescissions, or parts thereof that have a fiscal effect on school districts, counties, townships, or municipal corporations, a finding that the rule summary and fiscal analysis is incomplete or inaccurate and order the rule-making agency to revise the rule summary and fiscal analysis and refile it with the proposed rule, amendment, rescission, or part thereof. If an emergency rule is filed as a nonemergency rule before the end of the ninetieth day of the emergency rule's effectiveness, and the joint committee issues a finding and orders the rule-making agency to refile under division (I)(4) of this section, the governor may also issue an order stating that the emergency rule shall remain in effect for an additional sixty days after the ninetieth day of the emergency rule's effectiveness. The governor's orders shall be filed in accordance with division (F) of this section. The joint committee shall send in electronic form to the rule-making agency, the secretary of state, and the director of the legislative service commission a certified text of the finding and order to revise the rule summary and fiscal analysis, which shall take immediate effect.

An order issued under division (I)(4) of this section shall prevent the rule-making agency from instituting or continuing proceedings to adopt any version of the proposed rule, amendment, rescission, or part thereof until the rule-making agency revises the rule summary and fiscal analysis and refiles it in electronic form with the joint committee along with the proposed rule, amendment, rescission, or part thereof. If the joint committee finds the rule summary and fiscal analysis to be complete and accurate, the joint committee shall issue a new order noting that the rule-making agency has revised and refiled a complete and accurate rule summary and fiscal analysis. The joint committee shall send in electronic form to the rule-making agency, the secretary of state, and the director of the legislative service commission a certified text of this new order. The secretary of state and the director of the legislative service commission shall each link this order to the proposed rule, amendment, rescission, or part thereof. The rule-making agency may then proceed to adopt in accordance with division (D) of this section, or to file in accordance with division (B)(1) of section 111.15 of the Revised Code, the proposed rule, amendment, rescission, or part thereof that was subject to the finding and order under division (I)(4) of this section. If the joint committee determines that the revised rule summary and fiscal analysis is still inaccurate or incomplete, the joint committee shall recommend the adoption of a concurrent resolution in accordance with division (I)(1) of this section.

CREDIT(S)

(2011 S 2, eff. 1-1-12; 2002 S 265, eff. 9-17-02; 1999 H 470, § 6, eff. 4-1-02; 1999 H 470, § 3, eff. 4-1-01; 1999 H 470, § 1, eff. 7-1-00; 1999 S 11, § 6, eff. 4-1-02; 1999 S 11, § 3, eff. 4-1-01; 1999 S 11, § 1, eff. 9-15-99; 1994 S 33, eff. 8-16-94;

119.03 Procedure for adoption, amendment, or rescission of rules;..., OH ST § 119.03

1984 S 239, eff. 1-1-85; 1984 H 244; 1983 H 291; 1981 H 694, H 1; 1979 H 657, H 204, S 8; 1978 S 321; 1977 H 25, H 257, S 43; 1976 H 317; 1969 H 1; 1953 H 1; GC 154-64)

Notes of Decisions (93)

R.C. § 119.03, OH ST § 119.03

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Baldwin's Ohio Revised Code Annotated
Title I. State Government
Chapter 121. State Departments (Refs & Annos)
Miscellaneous Provisions

R.C. § 121.39

121.39 Requirements for proposed environmental protection legislation and rules

Effective: January 1, 2012
Currentness

(A) As used in this section, "environmental protection" means any of the following:

- (1) Protection of human health or safety, biological resources, or natural resources by preventing, reducing, or remediating the pollution or degradation of air, land, or water resources or by preventing or limiting the exposure of humans, animals, or plants to pollution;
- (2) Appropriation or regulation of privately owned property to preserve air, land, or water resources in a natural state or to wholly or partially restore them to a natural state;
- (3) Regulation of the collection, management, treatment, reduction, storage, or disposal of solid, hazardous, radioactive, or other wastes;
- (4) Plans or programs to promote or regulate the conservation, recycling, or reuse of energy, materials, or wastes.

(B) Except as otherwise provided in division (E) of this section, when proposed legislation dealing with environmental protection or containing a component dealing with environmental protection is referred to a committee of the general assembly, other than a committee on rules or reference, the sponsor of the legislation, at the time of the first hearing of the legislation before the committee, shall submit to the members of the committee a written statement identifying either the documentation that is the basis of the legislation or the federal requirement or requirements with which the legislation is intended to comply. If the legislation is not based on documentation or has not been introduced to comply with a federal requirement or requirements, the written statement from the sponsor shall so indicate.

Also at the time of the first hearing of the legislation before the committee, a statewide organization that represents businesses in this state and that elects its board of directors may submit to the members of the committee a written estimate of the costs to the regulated community in this state of complying with the legislation if it is enacted.

At any hearing of the legislation before the committee, a representative of any state agency, environmental advocacy organization, or consumer advocacy organization or any private citizen may present documentation containing an estimate of the monetary and other costs to public health and safety and the environment and to consumers and residential utility customers, and the effects on property values, if the legislation is not enacted.

(C) Until such time as the statement required under division (B) of this section is submitted to the committee to which proposed legislation dealing with environmental protection or containing a component dealing with environmental protection was referred, the legislation shall not be reported by that committee. This requirement does not apply if the component dealing with environmental protection is removed from the legislation or if two-thirds of the members of the committee vote in favor of a motion to report the proposed legislation.

(D) Except as otherwise provided in division (E) of this section, prior to adopting a rule or an amendment proposed to a rule dealing with environmental protection or containing a component dealing with environmental protection, a state agency shall do all of the following:

(1) Consult with organizations that represent political subdivisions, environmental interests, business interests, and other persons affected by the proposed rule or amendment;

(2) Consider documentation relevant to the need for, the environmental benefits or consequences of, other benefits of, and the technological feasibility of the proposed rule or amendment;

(3) Specifically identify whether the proposed rule or amendment is being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal environmental law or to participate in a federal environmental program, whether the proposed rule or amendment is more stringent than its federal counterpart, and, if the proposed rule or amendment is more stringent, the rationale for not incorporating its federal counterpart;

(4) Include with the proposed rule or amendment and the rule summary and fiscal analysis required under section 127.18 of the Revised Code, when they are filed with the joint committee on agency rule review in accordance with division (D) of section 111.15 or division (H) of section 119.03 of the Revised Code, one of the following in electronic form, as applicable:

(a) The information identified under division (D)(3) of this section and, if the proposed rule or amendment is more stringent than its federal counterpart, as identified in that division, the documentation considered under division (D)(2) of this section;

(b) If an amendment proposed to a rule is being adopted or amended under a state statute that establishes standards with which the amendment shall comply, and the proposed amendment is more stringent than the rule that it is proposing to amend, the documentation considered under division (D)(2) of this section;

(c) If division (D)(4)(a) or (b) of this section is not applicable, the documentation considered under division (D)(2) of this section.

If the agency subsequently files a revision of such a proposed rule or amendment in accordance with division (D) of section 111.15 or division (H) of section 119.03 of the Revised Code, the revision shall be accompanied in electronic form by the applicable information or documentation.

Division (D) of this section does not apply to any emergency rule adopted under division (B)(2) of section 111.15 or division (F) of section 119.03 of the Revised Code, but does apply to any such rule that subsequently is adopted as a nonemergency rule under either of those divisions.

121.39 Requirements for proposed environmental protection..., OH ST § 121.39

The information or documentation submitted under division (D)(4) of this section may be in the form of a summary or index of available knowledge or information and shall consist of or be based upon the best available generally accepted knowledge or information in the appropriate fields, as determined by the agency that prepared the documentation.

(E) The statement required under division (B) and the information or documentation required under division (D) of this section need not be prepared or submitted with regard to a proposed statute or rule, or an amendment to a rule, if the statute, rule, or amendment is procedural or budgetary in nature, or governs the organization or operation of a state agency, and will not affect the substantive rights or obligations of any person other than a state agency or an employee or contractor of a state agency.

(F) The insufficiency, incompleteness, or inadequacy of a statement, information, documentation, or a summary of information or documentation provided in accordance with division (B) or (D) of this section shall not be grounds for invalidation of any statute, rule, or amendment to a rule.

(G) This section applies only to the following:

(1) Legislation and components of legislation dealing with environmental protection that are introduced in the general assembly after March 5, 1996;

(2) Rules and rule amendments dealing with environmental protection that are filed with the joint committee on agency rule review in accordance with division (D) of section 111.15 or division (H) of section 119.03 of the Revised Code after March 5, 1996.

CREDIT(S)

(2011 S 2, eff. 1-1-12; 1999 S 11, § 6, eff. 4-1-02; 1999 S 11, § 3, eff. 4-1-01; 1995 H 106, eff. 3-5-96)

R.C. § 121.39, OH ST § 121.39

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Baldwin's Ohio Revised Code Annotated
Title I. State Government
Chapter 121. State Departments (Refs & Annos)
Reduction of Adverse Impact of Rules on Businesses

R.C. § 121.82

121.82 Procedures in developing draft rules

Effective: June 7, 2011

Currentness

In the course of developing a draft rule that is intended to be proposed under division (D) of section 111.15 or division (H) of section 119.03 of the Revised Code, an agency shall:

(A) Evaluate the draft rule against the business impact analysis instrument. If, based on that evaluation, the draft rule will not have an adverse impact on businesses, the agency may proceed with the rule-filing process. If the evaluation determines that the draft rule will have an adverse impact on businesses, the agency shall incorporate features into the draft rule that will eliminate or adequately reduce any adverse impact the draft rule might have on businesses;

(B) Prepare a business impact analysis that describes its evaluation of the draft rule against the business impact analysis instrument, that identifies any features that were incorporated into the draft rule as a result of the evaluation, and that explains how those features, if there were any, eliminate or adequately reduce any adverse impact the draft rule might have on businesses;

(C) Transmit a copy of the full text of the draft rule and the business impact analysis electronically to the common sense initiative office, which information shall be made available to the public on the office's web site in accordance with section 107.62 of the Revised Code;

(D) Consider any recommendations made by the common sense initiative office with regard to the draft rule, and either incorporate into the draft rule features the recommendations suggest will eliminate or reduce any adverse impact the draft rule might have on businesses or document, in writing, the reasons those recommendations are not being incorporated into the draft rule; and

(E) Prepare a memorandum of response identifying features suggested by any recommendations that were incorporated into the draft rule and features suggested by any recommendations that were not incorporated into the draft rule, explaining how the features that were incorporated into the draft rule eliminate or reduce any adverse impact the draft rule might have on businesses, and explaining why the features that were not incorporated into the draft rule were not incorporated.

An agency may not file a proposed rule for legislative review under division (D) of section 111.15 or division (H) of section 119.03 of the Revised Code earlier than the sixteenth business day after electronically transmitting the draft rule to the common sense initiative office.

CREDIT(S)

(2011 S 2, eff. 6-7-11)

121.82 Procedures in developing draft rules, OH ST § 121.82

R.C. § 121.82, OH ST § 121.82

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Baldwin's Ohio Revised Code Annotated
Title I. State Government
Chapter 121. State Departments (Refs & Annos)
Reduction of Adverse Impact of Rules on Businesses

R.C. § 121.83

**121.83 Filing of business impact analysis, recommendations,
and response along with proposed rule for legislative review**

Effective: June 7, 2011
Currentness

(A) When an agency files a proposed rule for legislative review under division (D) of section 111.15 of the Revised Code or division (H) of section 119.03 of the Revised Code, the agency electronically shall file one copy of the business impact analysis, any recommendations received from the common sense initiative office, and the agency's memorandum of response, if any, along with the proposed rule.

(B) The joint committee on agency rule review does not have jurisdiction to review, and shall reject, the filing of a proposed rule if, at any time while the proposed rule is in its possession, it discovers that the proposed rule might have an adverse impact on businesses and the agency has not included with the filing a business impact analysis or has included a business impact analysis that is inadequately prepared. The joint committee electronically shall return a filing that is rejected to the agency. Such a rejection does not preclude the agency from refileing the proposed rule after complying with section 121.82 of the Revised Code. When a filing is rejected under this division, it is as if the filing had not been made.

CREDIT(S)

(2011 S 2, eff. 6-7-11)

R.C. § 121.83, OH ST § 121.83
Current through 2013 File 47 of the 130th GA (2013-2014).

Baldwin's Ohio Revised Code Annotated
Title I. State Government
Chapter 127. Emergency Board; Controlling Board (Refs & Annos)
Miscellaneous Provisions

R.C. § 127.18

127.18 Fiscal analysis of proposed rule; other information to be filed with proposal

Effective: September 4, 2013
Currentness

(A) As used in this section:

- (1) "Rule-making agency" has the same meaning as in division (I) of section 119.01 of the Revised Code.
- (2) "Rule" includes the adoption, amendment, or rescission of a rule.
- (3) "Proposed rule" means the original version of a proposed rule, and each revised version of the same proposed rule, that is filed with the joint committee on agency rule review under division (D) of section 111.15 or division (H) of section 119.03 of the Revised Code.

(B) A rule-making agency shall prepare, in the form prescribed by the joint committee on agency rule review under division (E) of this section, a complete and accurate rule summary and fiscal analysis of each proposed rule that it files under division (D) of section 111.15 or division (H) of section 119.03 of the Revised Code. The rule summary and fiscal analysis shall include all of the following information:

- (1) The name, address, and telephone number of the rule-making agency, and the name and telephone number of an individual or office within the agency designated by that agency to be responsible for coordinating and making available information in the possession of the agency regarding the proposed rule;
- (2) The Ohio Administrative Code rule number of the proposed rule;
- (3) A brief summary of, and the legal basis for, the proposed rule, including citations identifying the statute that prescribes the procedure in accordance with which the rule-making agency is required to adopt the proposed rule, the statute that authorizes the agency to adopt the proposed rule, and the statute that the agency intends to amplify or implement by adopting the proposed rule;
- (4) An estimate, in dollars, of the amount by which the proposed rule would increase or decrease revenues or expenditures during the current biennium;
- (5) A citation identifying the appropriation that authorizes each expenditure that would be necessitated by the proposed rule;

(6) A summary of the estimated cost of compliance with the rule to all directly affected persons;

(7) The reasons why the rule is being proposed;

(8) If the rule has a fiscal effect on school districts, counties, townships, or municipal corporations, an estimate in dollars of the cost of compliance with the rule, or, if dollar amounts cannot be determined, a written explanation of why it was not possible to ascertain dollar amounts;

(9) If the rule has a fiscal effect on school districts, counties, townships, or municipal corporations and is the result of a federal requirement, a clear explanation that the proposed state rule does not exceed the scope and intent of the requirement, or, if the state rule does exceed the minimum necessary federal requirement, a justification of the excess cost, and an estimate of the costs, including those costs for local governments, exceeding the federal requirement;

(10) If the rule has a fiscal effect on school districts, counties, townships, or municipal corporations, a comprehensive cost estimate that includes the procedure and method of calculating the costs of compliance and identifies major cost categories including personnel costs, new equipment or other capital costs, operating costs, and indirect central service costs related to the rule. The fiscal analysis shall also include a written explanation of the agency's and the affected local government's ability to pay for the new requirements and a statement of any impact the rule will have on economic development.

(11) If the rule incorporates a text or other material by reference, and the agency claims the incorporation by reference is exempt from compliance with sections 121.71 to 121.74 of the Revised Code because the text or other material is generally available to persons who reasonably can be expected to be affected by the rule, an explanation of how the text or other material is generally available to those persons;

(12) If the rule incorporates a text or other material by reference, and it was infeasible for the agency to file the text or other material electronically, an explanation of why filing the text or other material electronically was infeasible;

(13) If the rule is being rescinded and incorporates a text or other material by reference, and it was infeasible for the agency to file the text or other material, an explanation of why filing the text or other material was infeasible;

(14) Any other information the joint committee on agency rule review considers necessary to make the proposed rule or the fiscal effect of the proposed rule fully understandable.

(C) The rule-making agency shall file the rule summary and fiscal analysis in electronic form along with the proposed rule that it files under divisions (D) and (E) of section 111.15 or divisions (B) and (H) of section 119.03 of the Revised Code. The joint committee on agency rule review shall not accept any proposed rule for filing unless a copy of the rule summary and fiscal analysis of the proposed rule, completely and accurately prepared, is filed along with the proposed rule.

(D) The joint committee on agency rule review shall review the fiscal effect of each proposed rule that is filed under division (D) of section 111.15 or division (H) of section 119.03 of the Revised Code.

127.18 Fiscal analysis of proposed rule; other information to be..., OH ST § 127.18

(E) The joint committee on agency rule review shall prescribe the form in which each rule-making agency shall prepare its rule summary and fiscal analysis of a proposed rule.

CREDIT(S)

(2013 S 67, eff. 9-4-13; 2002 S 265, eff. 9-17-02; 1999 S 11, § 6, eff. 4-1-02; 1999 S 11, § 3, eff. 4-1-01; 1994 S 33, eff. 8-16-94; 1985 S 269, eff. 3-13-86; 1985 H 201; 1984 S 239, H 244; 1980 H 440; 1979 H 204)

Notes of Decisions (2)

R.C. § 127.18, OH ST § 127.18

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Baldwin's Ohio Revised Code Annotated
Title XXXVII. Health--Safety--Morals
Chapter 3745. Environmental Protection Agency (Refs & Annos)
General Provisions

R.C. § 3745.07

3745.07 Proposed actions of director; actions, hearings and objections; mailing list; notices; appeals

Currentness

Before issuing, denying, modifying, revoking, or renewing any permit, license, or variance under Chapter 3704., 3714., 3734., or 6111. of the Revised Code, the director of environmental protection may issue a proposed action to the applicant that indicates the director's intent with regard to the issuance, denial, modification, revocation, or renewal of the permit, license, or variance. The director shall maintain a current mailing list of persons who, annually, subscribe for notification of all proposed actions, issuances, denials, modifications, revocations, and renewals of permits, licenses, and variances, verified complaints received, and all hearings and public meetings to be conducted under Chapters 3704., 3714., 3734., and 6111. of the Revised Code. The director shall mail notice to each subscriber of a proposed action or an issuance, denial, modification, revocation, or renewal of a permit, license, or variance within one week after issuance thereof, of a verified complaint within one week after receipt thereof, and of a hearing or public meeting at least two weeks before the hearing or public meeting. Failure to mail notice to any person subscribing to the mailing list shall not invalidate any proceeding or action of the director.

If the director receives a written objection to a proposed action, within thirty days of the date of issuance of the proposed action, from an officer of an agency of the state or of a political subdivision acting in a representative capacity or any person who would be aggrieved or adversely affected by the issuance or renewal of a permit, license, or variance, the director shall conduct an adjudication hearing on the proposed action in accordance with sections 119.09 and 119.10 of the Revised Code, at which hearing the persons who submit objections shall be parties. The director shall give notice of the hearing to all persons submitting objections, by certified mail at least thirty days before the hearing. Notwithstanding section 119.07 of the Revised Code, the director may schedule the adjudication hearing at any reasonable time not later than sixty days after receipt of the request for an adjudication hearing or receipt of an objection to a proposed action.

The director shall cause notice of each proposed action, each issuance, denial, modification, revocation, or renewal of a permit, license, or variance for which no proposed action was issued, each verified complaint received, and each hearing or public meeting to be published in a newspaper of general circulation in the county where the permit, license, or variance is sought or violation is alleged, within fifteen days after the date of the proposed action, the issuance, denial, modification, revocation, or renewal of a permit, license, or variance, or the receipt of the verified complaint, and at least thirty days prior to a hearing or public meeting.

The director shall collect from each subscriber an annual subscription fee of seventy dollars to cover the expenses of notification by mail and by publication. All fees collected under this section shall be deposited in the general revenue fund.

If the director issues, denies, modifies, revokes, or renews a permit, license, or variance without issuing a proposed action, an officer of an agency of the state or of a political subdivision, acting in a representative capacity, or any person who would be aggrieved or adversely affected thereby, may appeal to the environmental review appeals commission within thirty days of the issuance, denial, modification, revocation, or renewal.

CREDIT(S)

(1996 H 670, eff. 12-2-96; 1990 H 366, eff. 7-24-90; 1981 H 694; 1974 S 288; 1972 S 397)

Notes of Decisions (29)

R.C. § 3745.07, OH ST § 3745.07

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Baldwin's Ohio Revised Code Annotated
Title LXI. Water Supply--Sanitation--Ditches
Chapter 6111. Water Pollution Control (Refs & Annos)
Miscellaneous Provisions

R.C. § 6111.03

6111.03 Powers of director of environmental protection

Effective: September 5, 2012
Currentness

The director of environmental protection may do any of the following:

(A) Develop plans and programs for the prevention, control, and abatement of new or existing pollution of the waters of the state;

(B) Advise, consult, and cooperate with other agencies of the state, the federal government, other states, and interstate agencies and with affected groups, political subdivisions, and industries in furtherance of the purposes of this chapter. Before adopting, amending, or rescinding a standard or rule pursuant to division (G) of this section or section 6111.041 or 6111.042 of the Revised Code, the director shall do all of the following:

(1) Mail notice to each statewide organization that the director determines represents persons who would be affected by the proposed standard or rule, amendment thereto, or rescission thereof at least thirty-five days before any public hearing thereon;

(2) Mail a copy of each proposed standard or rule, amendment thereto, or rescission thereof to any person who requests a copy, within five days after receipt of the request therefor;

(3) Consult with appropriate state and local government agencies or their representatives, including statewide organizations of local government officials, industrial representatives, and other interested persons.

Although the director is expected to discharge these duties diligently, failure to mail any such notice or copy or to so consult with any person shall not invalidate any proceeding or action of the director.

(C) Administer grants from the federal government and from other sources, public or private, for carrying out any of its functions, all such moneys to be deposited in the state treasury and kept by the treasurer of state in a separate fund subject to the lawful orders of the director;

(D) Administer state grants for the construction of sewage and waste collection and treatment works;

(E) Encourage, participate in, or conduct studies, investigations, research, and demonstrations relating to water pollution, and the causes, prevention, control, and abatement thereof, that are advisable and necessary for the discharge of the director's duties under this chapter;

(F) Collect and disseminate information relating to water pollution and prevention, control, and abatement thereof;

(G) Adopt, amend, and rescind rules in accordance with Chapter 119. of the Revised Code governing the procedure for hearings, the filing of reports, the issuance of permits, the issuance of industrial water pollution control certificates, and all other matters relating to procedure;

(H) Issue, modify, or revoke orders to prevent, control, or abate water pollution by such means as the following:

(1) Prohibiting or abating discharges of sewage, industrial waste, or other wastes into the waters of the state;

(2) Requiring the construction of new disposal systems or any parts thereof, or the modification, extension, or alteration of existing disposal systems or any parts thereof;

(3) Prohibiting additional connections to or extensions of a sewerage system when the connections or extensions would result in an increase in the polluting properties of the effluent from the system when discharged into any waters of the state;

(4) Requiring compliance with any standard or rule adopted under sections 6111.01 to 6111.05 of the Revised Code or term or condition of a permit.

In the making of those orders, wherever compliance with a rule adopted under section 6111.042 of the Revised Code is not involved, consistent with the Federal Water Pollution Control Act, the director shall give consideration to, and base the determination on, evidence relating to the technical feasibility and economic reasonableness of complying with those orders and to evidence relating to conditions calculated to result from compliance with those orders, and their relation to benefits to the people of the state to be derived from such compliance in accomplishing the purposes of this chapter.

(I) Review plans, specifications, or other data relative to disposal systems or any part thereof in connection with the issuance of orders, permits, and industrial water pollution control certificates under this chapter;

(J)(1) Issue, revoke, modify, or deny sludge management permits and permits for the discharge of sewage, industrial waste, or other wastes into the waters of the state, and for the installation or modification of disposal systems or any parts thereof in compliance with all requirements of the Federal Water Pollution Control Act and mandatory regulations adopted thereunder¹, including regulations adopted under section 405 of the Federal Water Pollution Control Act², and set terms and conditions of permits, including schedules of compliance, where necessary. Any person who discharges, transports, or handles storm water from an animal feeding facility, as defined in section 903.01 of the Revised Code, or pollutants from a concentrated animal feeding operation, as both terms are defined in that section, is not required to obtain a permit under division (J)(1) of this section for the installation or modification of a disposal system involving pollutants or storm water or any parts of such a system on and after the date on which the director of agriculture has finalized the program required under division (A)(1) of section 903.02 of the Revised Code. In addition, any person who discharges, transports, or handles storm water from an animal feeding facility, as defined in section 903.01 of the Revised Code, or pollutants from a concentrated animal feeding operation, as both terms are defined in that section, is not required to obtain a permit under division (J)(1) of this section for the discharge of storm water from an animal feeding facility or pollutants from a concentrated animal feeding operation on and after the date on which the

United States environmental protection agency approves the NPDES program submitted by the director of agriculture under section 903.08 of the Revised Code.

Any permit terms and conditions set by the director shall be designed to achieve and maintain full compliance with the national effluent limitations, national standards of performance for new sources, and national toxic and pretreatment effluent standards set under that act, and any other mandatory requirements of that act that are imposed by regulation of the administrator of the United States environmental protection agency. If an applicant for a sludge management permit also applies for a related permit for the discharge of sewage, industrial waste, or other wastes into the waters of the state, the director may combine the two permits and issue one permit to the applicant.

A sludge management permit is not required for an entity that treats or transports sewage sludge or for a sanitary landfill when all of the following apply:

- (a) The entity or sanitary landfill does not generate the sewage sludge.

- (b) Prior to receipt at the sanitary landfill, the entity has ensured that the sewage sludge meets the requirements established in rules adopted by the director under section 3734.02 of the Revised Code concerning disposal of municipal solid waste in a sanitary landfill.

- (c) Disposal of the sewage sludge occurs at a sanitary landfill that complies with rules adopted by the director under section 3734.02 of the Revised Code.

As used in division (J)(1) of this section, "sanitary landfill" means a sanitary landfill facility, as defined in rules adopted under section 3734.02 of the Revised Code, that is licensed as a solid waste facility under section 3734.05 of the Revised Code.

(2) An application for a permit or renewal thereof shall be denied if any of the following applies:

- (a) The secretary of the army determines in writing that anchorage or navigation would be substantially impaired thereby;

- (b) The director determines that the proposed discharge or source would conflict with an areawide waste treatment management plan adopted in accordance with section 208 of the Federal Water Pollution Control Act³;

- (c) The administrator of the United States environmental protection agency objects in writing to the issuance or renewal of the permit in accordance with section 402 (d) of the Federal Water Pollution Control Act⁴;

- (d) The application is for the discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the waters of the United States.

(3) To achieve and maintain applicable standards of quality for the waters of the state adopted pursuant to section 6111.041 of the Revised Code, the director shall impose, where necessary and appropriate, as conditions of each permit, water quality related effluent limitations in accordance with sections 301, 302, 306, 307, and 405 of the Federal Water Pollution Control Act⁵ and, to the extent consistent with that act, shall give consideration to, and base the determination on, evidence relating to the technical

feasibility and economic reasonableness of removing the polluting properties from those wastes and to evidence relating to conditions calculated to result from that action and their relation to benefits to the people of the state and to accomplishment of the purposes of this chapter.

(4) Where a discharge having a thermal component from a source that is constructed or modified on or after October 18, 1972, meets national or state effluent limitations or more stringent permit conditions designed to achieve and maintain compliance with applicable standards of quality for the waters of the state, which limitations or conditions will ensure protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in or on the body of water into which the discharge is made, taking into account the interaction of the thermal component with sewage, industrial waste, or other wastes, the director shall not impose any more stringent limitation on the thermal component of the discharge, as a condition of a permit or renewal thereof for the discharge, during a ten-year period beginning on the date of completion of the construction or modification of the source, or during the period of depreciation or amortization of the source for the purpose of section 167 or 169 of the Internal Revenue Code of 1954⁶, whichever period ends first.

(5) The director shall specify in permits for the discharge of sewage, industrial waste, and other wastes, the net volume, net weight, duration, frequency, and, where necessary, concentration of the sewage, industrial waste, and other wastes that may be discharged into the waters of the state. The director shall specify in those permits and in sludge management permits that the permit is conditioned upon payment of applicable fees as required by section 3745.11 of the Revised Code and upon the right of the director's authorized representatives to enter upon the premises of the person to whom the permit has been issued for the purpose of determining compliance with this chapter, rules adopted thereunder, or the terms and conditions of a permit, order, or other determination. The director shall issue or deny an application for a sludge management permit or a permit for a new discharge, for the installation or modification of a disposal system, or for the renewal of a permit, within one hundred eighty days of the date on which a complete application with all plans, specifications, construction schedules, and other pertinent information required by the director is received.

(6) The director may condition permits upon the installation of discharge or water quality monitoring equipment or devices and the filing of periodic reports on the amounts and contents of discharges and the quality of receiving waters that the director prescribes. The director shall condition each permit for a government-owned disposal system or any other "treatment works" as defined in the Federal Water Pollution Control Act upon the reporting of new introductions of industrial waste or other wastes and substantial changes in volume or character thereof being introduced into those systems or works from "industrial users" as defined in section 502 of that act⁷, as necessary to comply with section 402(b)(8) of that act⁸; upon the identification of the character and volume of pollutants subject to pretreatment standards being introduced into the system or works; and upon the existence of a program to ensure compliance with pretreatment standards by "industrial users" of the system or works. In requiring monitoring devices and reports, the director, to the extent consistent with the Federal Water Pollution Control Act, shall give consideration to technical feasibility and economic reasonableness and shall allow reasonable time for compliance.

(7) A permit may be issued for a period not to exceed five years and may be renewed upon application for renewal. In renewing a permit, the director shall consider the compliance history of the permit holder and may deny the renewal if the director determines that the permit holder has not complied with the terms and conditions of the existing permit. A permit may be modified, suspended, or revoked for cause, including, but not limited to, violation of any condition of the permit, obtaining a permit by misrepresentation or failure to disclose fully all relevant facts of the permitted discharge or of the sludge use, storage, treatment, or disposal practice, or changes in any condition that requires either a temporary or permanent reduction or elimination of the permitted activity. No application shall be denied or permit revoked or modified without a written order stating the findings upon which the denial, revocation, or modification is based. A copy of the order shall be sent to the applicant or permit holder by certified mail.

(K) Institute or cause to be instituted in any court of competent jurisdiction proceedings to compel compliance with this chapter or with the orders of the director issued under this chapter, or to ensure compliance with sections 204(b), 307, 308, and 405 of the Federal Water Pollution Control Act;

(L) Issue, deny, revoke, or modify industrial water pollution control certificates;

(M) Certify to the government of the United States or any agency thereof that an industrial water pollution control facility is in conformity with the state program or requirements for the control of water pollution whenever the certification may be required for a taxpayer under the Internal Revenue Code of the United States, as amended;

(N) Issue, modify, and revoke orders requiring any "industrial user" of any publicly owned "treatment works" as defined in sections 212(2) and 502(18) of the Federal Water Pollution Control Act to comply with pretreatment standards; establish and maintain records; make reports; install, use, and maintain monitoring equipment or methods, including, where appropriate, biological monitoring methods; sample discharges in accordance with methods, at locations, at intervals, and in a manner that the director determines; and provide other information that is necessary to ascertain whether or not there is compliance with toxic and pretreatment effluent standards. In issuing, modifying, and revoking those orders, the director, to the extent consistent with the Federal Water Pollution Control Act, shall give consideration to technical feasibility and economic reasonableness and shall allow reasonable time for compliance.

(O) Exercise all incidental powers necessary to carry out the purposes of this chapter;

(P) Certify or deny certification to any applicant for a federal license or permit to conduct any activity that may result in any discharge into the waters of the state that the discharge will comply with the Federal Water Pollution Control Act;

(Q) Administer and enforce the publicly owned treatment works pretreatment program in accordance with the Federal Water Pollution Control Act. In the administration of that program, the director may do any of the following:

(1) Apply and enforce pretreatment standards;

(2) Approve and deny requests for approval of publicly owned treatment works pretreatment programs, oversee those programs, and implement, in whole or in part, those programs under any of the following conditions:

(a) The director has denied a request for approval of the publicly owned treatment works pretreatment program;

(b) The director has revoked the publicly owned treatment works pretreatment program;

(c) There is no pretreatment program currently being implemented by the publicly owned treatment works;

(d) The publicly owned treatment works has requested the director to implement, in whole or in part, the pretreatment program.

(3) Require that a publicly owned treatment works pretreatment program be incorporated in a permit issued to a publicly owned treatment works as required by the Federal Water Pollution Control Act, require compliance by publicly owned treatment works with those programs, and require compliance by industrial users with pretreatment standards;

(4) Approve and deny requests for authority to modify categorical pretreatment standards to reflect removal of pollutants achieved by publicly owned treatment works;

(5) Deny and recommend approval of requests for fundamentally different factors variances submitted by industrial users;

(6) Make determinations on categorization of industrial users;

(7) Adopt, amend, or rescind rules and issue, modify, or revoke orders necessary for the administration and enforcement of the publicly owned treatment works pretreatment program.

Any approval of a publicly owned treatment works pretreatment program may contain any terms and conditions, including schedules of compliance, that are necessary to achieve compliance with this chapter.

(R) Except as otherwise provided in this division, adopt rules in accordance with Chapter 119. of the Revised Code establishing procedures, methods, and equipment and other requirements for equipment to prevent and contain discharges of oil and hazardous substances into the waters of the state. The rules shall be consistent with and equivalent in scope, content, and coverage to section 311(j)(1)(c) of the Federal Water Pollution Control Act and regulations adopted under it. The director shall not adopt rules under this division relating to discharges of oil from oil production facilities and oil drilling and workover facilities as those terms are defined in that act and regulations adopted under it.

(S)(1) Administer and enforce a program for the regulation of sludge management in this state. In administering the program, the director, in addition to exercising the authority provided in any other applicable sections of this chapter, may do any of the following:

(a) Develop plans and programs for the disposal and utilization of sludge and sludge materials;

(b) Encourage, participate in, or conduct studies, investigations, research, and demonstrations relating to the disposal and use of sludge and sludge materials and the impact of sludge and sludge materials on land located in the state and on the air and waters of the state;

(c) Collect and disseminate information relating to the disposal and use of sludge and sludge materials and the impact of sludge and sludge materials on land located in the state and on the air and waters of the state;

(d) Issue, modify, or revoke orders to prevent, control, or abate the use and disposal of sludge and sludge materials or the effects of the use of sludge and sludge materials on land located in the state and on the air and waters of the state;

(e) Adopt and enforce, modify, or rescind rules necessary for the implementation of division (S) of this section. The rules reasonably shall protect public health and the environment, encourage the beneficial reuse of sludge and sludge materials, and minimize the creation of nuisance odors.

The director may specify in sludge management permits the net volume, net weight, quality, and pollutant concentration of the sludge or sludge materials that may be used, stored, treated, or disposed of, and the manner and frequency of the use, storage, treatment, or disposal, to protect public health and the environment from adverse effects relating to those activities. The director shall impose other terms and conditions to protect public health and the environment, minimize the creation of nuisance odors, and achieve compliance with this chapter and rules adopted under it and, in doing so, shall consider whether the terms and conditions are consistent with the goal of encouraging the beneficial reuse of sludge and sludge materials.

The director may condition permits on the implementation of treatment, storage, disposal, distribution, or application management methods and the filing of periodic reports on the amounts, composition, and quality of sludge and sludge materials that are disposed of, used, treated, or stored.

An approval of a treatment works sludge disposal program may contain any terms and conditions, including schedules of compliance, necessary to achieve compliance with this chapter and rules adopted under it.

(2) As a part of the program established under division (S)(1) of this section, the director has exclusive authority to regulate sewage sludge management in this state. For purposes of division (S)(2) of this section, that program shall be consistent with section 405 of the Federal Water Pollution Control Act and regulations adopted under it and with this section, except that the director may adopt rules under division (S) of this section that establish requirements that are more stringent than section 405 of the Federal Water Pollution Control Act and regulations adopted under it with regard to monitoring sewage sludge and sewage sludge materials and establishing acceptable sewage sludge management practices and pollutant levels in sewage sludge and sewage sludge materials.

This chapter authorizes the state to participate in any national sludge management program and the national pollutant discharge elimination system, to administer and enforce the publicly owned treatment works pretreatment program, and to issue permits for the discharge of dredged or fill materials, in accordance with the Federal Water Pollution Control Act. This chapter shall be administered, consistent with the laws of this state and federal law, in the same manner that the Federal Water Pollution Control Act is required to be administered.

This section does not apply to animal waste disposal systems and related management and conservation practices subject to rules adopted pursuant to division (E)(4) of section 1511.02 of the Revised Code. However, until the date on which the United States environmental protection agency approves the NPDES program submitted by the director of agriculture under section 903.08 of the Revised Code, this exclusion does not apply to animal waste treatment works having a controlled direct discharge to the waters of the state or any concentrated animal feeding operation, as defined in 40 C.F.R. 122.23(b)(2). On and after the date on which the United States environmental protection agency approves the NPDES program submitted by the director of agriculture under section 903.08 of the Revised Code, this section does not apply to storm water from an animal feeding facility, as defined in section 903.01 of the Revised Code, or to pollutants discharged from a concentrated animal feeding operation, as both terms are defined in that section. Neither of these exclusions applies to the discharge of animal waste into a publicly owned treatment works.

CREDIT(S)

(2012 S 294, eff. 9-5-12; 2009 H 363, eff. 12-22-09; 2003 H 152, eff. 11-5-03; 2000 S 141, eff. 3-15-01; 1999 H 197, eff. 3-17-00; 1994 S 182, eff. 10-20-94; 1988 S 367, eff. 12-14-88; 1984 H 37; 1981 S 155, H 694; 1980 H 766; 1973 S 80; 1972 S 397; 132 v H 314, S 20; 131 v H 1; 1953 H 1; GC 1261-1d)

COMPARATIVE LAWS

Colo.--West's C.R.S.A. 25-8-101 et seq.

Ga.--O.C.G.A. § 12-5-21 et seq.

Idaho--I.C. § 39-3601 et seq.

Ill.--ILCS 415 5/11 et seq.

Kan.--K.S.A. 65-3301 et seq.

La.--LSA-R.S. 40:2321 et seq.

Mass.--M.G.L.A. c. 21, § 26 et seq.

Miss.--Code 1972, § 49-17-1 et seq.

Mo.--V.A.M.S. § 644.006 et seq.

Mont.--MCA 75-5-101 et seq.

N.C.--G.S. § 143-211 et seq.

Neb.--R.R.S.1943, § 81-1504 et seq.

Nev.--N.R.S. 445A.300.

N.M.--NMSA 1978, § 74-6-1 et seq.

Pa.--35 P.S. § 691.1 et seq.

S.D.--SDCL 34A-2-1 et seq.

Tex.--V.T.C.A. Water Code § 26.001 et seq.

Vt.--10 V.S.A. § 1251 et seq.

Wash.--West's RCWA 90.48.010 et seq.

Notes of Decisions (100)

Footnotes

- 1 Prior and current versions differ; although no amendment to this language was indicated in 2000 S 141, "thereunder" appeared as "tereunder" in 1999 H 197.
- 2 33 U.S.C.A. § 1345.

6111.03 Powers of director of environmental protection, OH ST § 6111.03

- 3 33 U.S.C.A. § 1288.
- 4 33 U.S.C.A. § 1342(d).
- 5 33 U.S.C.A. §§ 1311, 1312, 1316, 1317, and 1345.
- 6 26 U.S.C.A. § 167 or 169.
- 7 33 U.S.C.A. § 1362.
- 8 33 U.S.C.A. § 1342(b)(8).

R.C. § 6111.03, OH ST § 6111.03

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Baldwin's Ohio Revised Code Annotated
Title LXI. Water Supply--Sanitation--Ditches
Chapter 6111. Water Pollution Control (Refs & Annos)
Miscellaneous Provisions

R.C. § 6111.041

6111.041 Water quality standards; hearings

Currentness

In furtherance of sections 6111.01 to 6111.08 of the Revised Code, the director of environmental protection shall adopt standards of water quality to be applicable to the waters of the state. Such standards shall be adopted pursuant to a schedule established, and from time to time amended, by the director, to apply to the various waters of the state, in accordance with Chapter 119. of the Revised Code. Such standards shall be adopted in accordance with section 303 of the "Federal Water Pollution Control Act" and shall be designed to improve and maintain the quality of such waters for the purpose of protecting the public health and welfare, and to enable the present and planned use of such waters for public water supplies, industrial and agricultural needs, propagation of fish, aquatic life, and wildlife, and recreational purposes. Such standards may be amended from time to time as determined by the director. Prior to establishing, amending, or repealing standards of water quality the director shall, after due notice, conduct public hearings thereon. Notice of hearings shall specify the waters to which the standards relate, and the time, date, and place of hearing.

Standards of quality for the waters of the state, or any amendment or repeal thereof, become effective upon adoption by the director. The director shall implement the standards so established in the issuance, revocation, modification, or denial of permits.

CREDIT(S)

(1980 H 766, eff. 7-25-80; 1973 S 80; 1972 S 397; 132 v H 314)

Notes of Decisions (19)

R.C. § 6111.041, OH ST § 6111.041

Current through 2013 File 47 of the 130th GA (2013-2014).

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Baldwin's Ohio Administrative Code Annotated

3745 Environmental Protection Agency (Refs & Annos)

Chapter 3745-2. Effluent Limitations; Wasteload Allocation (Refs & Annos)

OAC 3745-2-12

3745-2-12 Total maximum daily loads

Currentness

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules and federal statutory provisions referenced in this rule, see rule 3745-2-02 of the Administrative Code.]

(A)

(1) Total maximum daily loads (TMDLs) shall be established, at a minimum, in accordance with the listing and priority setting process established in section 303 (d) of the act and 40 C.F.R. 130.7.

(2) TMDLs shall be established and implemented through a TMDL implementation plan. An implementation plan shall address attainment of applicable water quality standards, determined in accordance with paragraph (C) of rule 3745-2-04 of the Administrative Code (or as otherwise applicable in accordance with Chapter 3745-1 of the Administrative Code) for each pollutant for which a TMDL is established.

(3) Where a TMDL is not required by paragraph (A)(1) of this rule or it is not technically feasible to complete development of a TMDL prior to NPDES permit deadlines for a discharge to a TMDL assessment area, Ohio EPA may develop water quality based effluent limits (WQBELs) for a discharge in the absence of a TMDL pursuant to rules 3745-2-04 to 3745-2-11 of the Administrative Code.

(B) A TMDL shall be determined as the sum of all existing or projected loads of a pollutant to the TMDL assessment area from point sources, nonpoint sources, and background sources. The sum of the loads shall not be greater than the loading capacity of the receiving water for the pollutant minus a specified margin of safety and any capacity reserved for future growth.

(C) Ohio EPA shall determine the assessment area for a TMDL, considering, at a minimum, the following factors:

(1) Area of impact;

(2) Significance of the pollutant of concern;

(3) Location, type, significance and interaction of pollutant sources;

(4) Availability of information;

- (5) Treatability of pollutant and pollutant sources;
- (6) Resources available to develop the TMDL implementation plan;
- (7) Resources available for implementing the TMDL implementation plan;
- (8) Coordination with other Ohio EPA programs and requirements; and
- (9) Federal regulations and guidance regarding TMDLs.

(D) Where an assessment and remediation plan meets the requirements of this rule and the public participation requirements applicable to TMDLs, Ohio EPA may use the assessment and remediation plan in lieu of a TMDL implementation plan. Assessment and remediation plans may include, but are not limited to, the Lake Erie lakewide management plan, remedial action plans, and water quality management plans. Any part of an assessment and remediation plan that satisfies one or more requirements under section 303 (d) of the act or its implementing regulations may be part of a TMDL implementation plan.

(E) A TMDL implementation plan may be based on attaining water quality standards over a period of time, with specific controls on individual sources being implemented in stages. Where implementing a TMDL implementation plan will not immediately attain water quality standards, the TMDL implementation plan shall reflect reasonable assurances that water quality standards will be attained in a reasonable period of time. Ohio EPA shall determine the reasonable period of time in which water quality standards will be met considering, at a minimum, the following factors:

- (1) Receiving water characteristics;
- (2) Persistence, behavior and ubiquity of pollutants of concern;
- (3) Type of remediation activities necessary;
- (4) Available regulatory and non-regulatory controls; and
- (5) Other requirements for attainment of water quality standards.

(F)

(1) Nonpoint source load allocations (LAs), for the purpose of establishing a TMDL, shall be based on at least the following information:

(a) Existing pollutant loadings if changes in loadings are not reasonably anticipated to occur;

(b) Increases in pollutant loadings that are reasonably anticipated to occur; and

(c) Anticipated decreases in pollutant loadings if such decreased loadings are technically feasible and are reasonably anticipated to occur within a reasonable time period as a result of implementation of best management practices or other load reduction measures.

(2) For LAs established on the basis of paragraph (F)(1)(c) of this rule, monitoring data shall be collected and analyzed in order to validate the TMDL's assumptions, to verify anticipated load reductions, to evaluate the effectiveness of controls being used to implement the TMDL implementation plan, and to revise the point source allocations and LAs as necessary to ensure that water quality standards will be achieved within the time-period established in the TMDL.

(3) For nonpoint sources considered in a TMDL that may affect the receiving water at stream flows at or below the stream design flows applicable under rule 3745-2-05 of the Administrative Code, LAs established in a TMDL shall be determined in accordance with rule 3745-2-05 of the Administrative Code such that water quality criteria are maintained at the design conditions.

(4) For nonpoint sources considered in a TMDL that only affect the receiving water at stream flows higher than the stream design flows applicable under rule 3745-2-05 of the Administrative Code, LAs may be established using stream flows and procedures which Ohio EPA determines are appropriate for that nonpoint source and which shall ensure that applicable water quality standards will be maintained whenever that nonpoint source load occurs.

(G) Pollutant loads allocated to point sources in a TMDL shall be used to determine wasteload allocations (WLAs) for those point sources.

(1) If TMDLs are established in TMDL implementation plans for different segments of the same watershed and include allocations for the same pollutant for the same point source, then WLAs for that pollutant and point source shall be consistent with the most stringent of those allocations.

(2) For point sources considered in a TMDL that discharge at stream flows at or below the stream design flows applicable under rule 3745-2-05 of the Administrative Code, WLAs shall be determined in accordance with rule 3745-2-05 of the Administrative Code such that water quality criteria are maintained at the design conditions.

(3) For point sources considered in a TMDL that only discharge at stream flows higher than the stream design flows applicable under rule 3745-2-05 of the Administrative Code, WLAs may be established using stream flows and procedures that Ohio EPA determines are appropriate for that point source and that shall ensure that applicable water quality standards will be maintained whenever that point source load occurs.

(4) WLAs determined as part of a TMDL shall be used to determine WQBELs for that discharge in accordance with rule 3745-2-06 of the Administrative Code.

(H) The background concentration of a pollutant for the purpose of establishing a TMDL shall be determined in accordance with paragraph (A)(3) of rule 3745-2-05 of the Administrative Code. Ohio EPA may apply alternative procedures to determine background concentrations if necessary to account for all conditions considered in the TMDL, such as, but not limited to, cases where background concentrations vary substantially with flow such that a background concentration derived in accordance with paragraph (A) of rule 3745-2-05 of the Administrative Code may not be appropriate.

(I) The loading capacity for the purpose of establishing a TMDL shall be determined as the largest load of a pollutant that a water body can receive without violating water quality standards at any applicable site within the TMDL implementation plan assessment area (outside of applicable mixing zones). Separate loading capacities may be determined for each flow condition applicable to the TMDL. Pollutant loads for sources which only affect the receiving water at or above certain flow conditions shall be determined to maintain only the loading capacities applicable at and above those flow conditions.

(J) Each TMDL shall include a margin of safety (MOS) sufficient to account for technical uncertainties in establishing the TMDL. The TMDL implementation plan shall describe the manner in which the MOS is determined and incorporated into the TMDL. The MOS may be provided by leaving a portion of the loading capacity unallocated or by using conservative modeling assumptions to establish WLAs and LAs.

(K) TMDLs may include reserved allocations of loading capacity to accommodate various needs including, but not limited to, future growth, additional sources, and environmental reserves. Where such reserved allocations are not included in a TMDL, any increased loadings of the pollutant for which the TMDL, was developed that are due to a new or expanded discharge shall not be allowed unless the TMDL is revised in accordance with this rule to include an allocation for the new or expanded discharge.

(L) TMDLs shall reflect, where appropriate and where sufficient data are available, contributions to the water column from sediments inside and outside of any applicable mixing zones. TMDLs shall be sufficiently stringent so as to prevent accumulation of the pollutant of concern in sediments to levels injurious to designated or existing uses, human health, wildlife and aquatic life criteria.

(M) Notwithstanding the exception provided for the establishment of controls on wet weather point sources in rule 3745-2-01 of the Administrative Code, TMDLs shall reflect, where appropriate and where sufficient data are available, point source and nonpoint source pollutant loads resulting from wet weather events.

(N) TMDLs shall be based on the assumption that a pollutant does not degrade. However, Ohio EPA may take into account degradation of the pollutant if each of the following conditions is met:

(1) Scientifically valid field studies or other relevant information demonstrate that degradation of the pollutant is expected to occur under the full range of environmental conditions expected to be encountered; and

(2) Scientifically valid field studies or other relevant information address other factors that affect the level of pollutants in the water column including, but not limited to, resuspension of sediments, chemical speciation, and biological and chemical transformation.

(O) TMDLs for metals shall be determined based on the total recoverable form of that metal provided by all sources considered in that TMDL. The loading capacity for that TMDL shall be determined to maintain the total recoverable criteria applicable to that metal, with the following exceptions.

(1) A WLA may be based on dissolved criteria in accordance with paragraph (F) of rule 3745-2-04 of the Administrative Code, provided that the WLA does not result in a total recoverable load in excess of that allocated to the point source as part of an established TMDL.

(2) The loading capacity may be based on an effective total recoverable criteria, determined from applicable dissolved criteria in accordance with paragraph (F) of rule 3745-2-04 of the Administrative Code, provided that the dissolved metal translator applied in determination of the effective total recoverable criteria can be demonstrated to be appropriate and protective for all sources of that metal and all receiving water conditions considered in the TMDL.

Credits

HISTORY: 2010-11 OMR pam. #9 (A), eff. 6-7-11; 2007-08 OMR pam. #1 (A), eff. 10-5-07; 2001-02 OMR 2388 (RRD); 1997-98 OMR 866 (E), eff. 10-31-97.

RC 119.032 rule review date(s): 6-7-16; 10-5-12; 11-30-10; 3-29-07; 3-25-07; 3-25-02

Rules are complete through November 3, 2013; Appendices are current to February 28, 2010

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3745-2-12, OH ADC 3745-2-12

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Baldwin's Ohio Administrative Code Annotated
3745 Environmental Protection Agency (Refs & Annos)
Chapter 3745-33. Ohio NPDES Permits (Refs & Annos)

OAC 3745-33-05

3745-33-05 Authorized discharge levels

Currentness

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules and federal statutory provisions referenced in this rule, see rule 3745-33-01 of the Administrative Code.]

(A) Final limitations.

(1) Except as provided by paragraph (G) of this rule, for each point source from which pollutants are discharged, the director shall determine and specify in the permit the maximum levels of pollutants that may be discharged to ensure compliance with:

(a) Applicable water quality standards; and

(b) Applicable effluent limitations, which shall be the national effluent limitations and guidelines adopted by the administrator pursuant to sections 301 and 302 of the act, and national standards of performance for new sources pursuant to section 306 of the act, and national toxic and pretreatment effluent limitations pursuant to section 307 of the act; and

(c) Standards that prohibit significant degradation of the waters of the state, if the point source was installed or should have been installed pursuant to a permit to install under Chapter 3745-42 of the Administrative Code; and

(d) Any more stringent requirements necessary to comply with a plan for area-wide waste treatment management, approved pursuant to section 208(b) of the act; and

(e) Any more stringent limitations required to comply with any other state or federal law or regulation.

(2) Prior to promulgation of regulations by the administrator setting forth effluent standards or limitations, or standards of performance pursuant to the act, the director may impose standards, limitations, or conditions in an Ohio NPDES permit necessary to ensure compliance with Chapter 6111. of the Revised Code and the act.

(3) A discharge shall be deemed to be in compliance with an effluent limitation based upon the 0.012 ug/l thirty-day average water quality criterion for total recoverable mercury specified in Chapter 3745-1 of the Administrative Code if:

(a) The discharge does not exceed the effluent limitation established in the NPDES permit based upon the 0.012 ug/l thirty-day average criterion; or

(b) The permittee demonstrates to the director's satisfaction that the concentration of methylmercury in the edible portion of consumed species or weighted average of various species based upon local consumption exposed to the discharge does not exceed 0.3 mg/kg. Any discharger seeking to make a demonstration pursuant to paragraph (A)(3)(b) of this rule must include a notification of its intent to perform such a study in the monthly operating report that reports any exceedance of a mercury effluent limit based on the 0.012 ug/l thirty-day average water quality criterion for total recoverable mercury. Such demonstration shall be based upon results of a fish tissue study, conducted in accordance with a methodology approved by the director. The results of the fish tissue study must be submitted to the director for review and approval within one hundred and twenty days of the discharge, or such additional period of time as specified by the director. Provided that the study is submitted within the time allowed, the determination of whether or not the discharger is in compliance with the applicable effluent limitation will be made when the director approves or disapproves the demonstration. If the geometric mean of all representative samples of any species or weighted average of various locally consumed species exceeds 0.3 mg/kg methylmercury, the director shall disapprove the demonstration and the discharger shall implement a strategy to reduce sources of mercury. This rule does not apply to any mercury effluent limitation other than the thirty-day average effluent limitation based upon the 0.012 ug/l thirty-day average water quality criterion for total recoverable mercury specified in Chapter 3745-1 of the Administrative Code.

(B) Interim limitations. Except as provided in paragraph (D) of this rule, the director may establish the maximum levels of pollutants that may be discharged during the period of the compliance program.

(C) Characterization of discharge levels.

(1) Expression of permit limits for continuous discharges. These requirements shall apply unless the director determines that expressing limits in these terms is impracticable.

(a) For discharges from a publicly owned treatment works or other treatment works that treats exclusively domestic sewage, limits for the parameters listed in this paragraph shall be expressed as average weekly and average monthly limits, unless more restrictive limits for other periods are needed to meet water quality standards or other regulatory requirements.

(i) Carbonaceous biochemical oxygen demand (CBOD).

(ii) Total suspended solids.

(iii) Ammonia-nitrogen.

(iv) Nitrate/nitrite-nitrogen.

(v) Total nitrogen.

(vi) Phosphorus.

(vii) All pathogen parameters.

(b) For all other discharges, limits shall be expressed as daily maximum and monthly average limits, unless limits for other periods are needed to meet water quality standards or other regulatory requirements.

(2) Expression of permit limits for non-continuous discharges. Discharges that are not continuous, as continuous is defined in 40 C.F.R. 122.2, shall be particularly described and limited, considering the following factors, as appropriate:

(a) Frequency (for example, a batch discharge shall not occur more than once every three weeks);

(b) Total mass (for example, not to exceed one hundred kilograms of zinc and two hundred kilograms of chromium per batch discharge);

(c) Maximum rate of discharge of pollutants during the discharge (for example, not to exceed two kilograms of zinc per minute); and

(d) Prohibition or limitation of specified pollutants by mass, concentrations, or other appropriate measure (for example, shall not contain at any time more than 0.1 mg/l zinc or more than two hundred fifty grams (one-fourth kilogram) of zinc in any discharge).

(3) Concentration and loading limitations. Authorized levels of pollutants that may be discharged shall be stated to the extent possible given the nature of the pollutant in terms of the volume, weight in pounds or kilograms per day (except for those pollutants not expressible by weight), duration, frequency and, where appropriate, concentration (except for those pollutants not expressible by concentration) of each pollutant discharge. The director shall specify average and maximum daily quantitative limitations, where appropriate. Whenever a water quality-based effluent limitation (WQBEL) is developed under Chapter 3745-2 of the Administrative Code, the WQBEL shall be expressed as both a concentration value and a corresponding mass loading limit, except as provided in paragraph (C)(3)(d) of this rule. Limits for chronic whole effluent toxicity may be expressed in terms of an average of multiple toxicity tests.

(a) Both mass and concentration limits must be based on the same permit averaging periods, except as allowed under paragraph (C)(3)(d) of this rule.

(b) The mass loading limits shall be calculated using effluent flow rates that are consistent with those used in establishing the WQBEL that are expressed as concentrations, except as allowed under paragraphs (C)(3)(c) and (C)(3)(d) of this rule.

(c) For facilities that, during wet weather conditions, are subject to flows that exceed dry weather treatment facility design conditions, the director may, upon review of supporting information, authorize mass loading limits based on a more appropriate flow rate.

(d) For facilities utilizing water conservation or flow reduction practices, the director may specify more appropriate mass and concentration limits based on wasteload allocation results as developed under Chapter 3745-2 of the Administrative Code.

(4) Metals. All permit effluent limitations, standards, or prohibitions for a metal must be expressed in terms of "total recoverable" metal as defined in 40 C.F.R. 136, Appendix C unless:

(a) An applicable metal effluent standard or limitation has been established under the act in the dissolved or valent or total form;

(b) In establishing permit limitations on a case-by-case basis under 40 C.F.R. 125.3, it is necessary to express the limitation on the metal in the dissolved or valent or total form to carry out the provisions of the act; or

(c) All approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium).

(5) Ambient sampling. When a site-specific dissolved metals translator is used in the calculation of effluent limitations, the NPDES permit shall require the permittee to conduct ambient sampling to confirm the continued validity of the site-specific translator.

(a) The ambient sampling shall be conducted once during the term of the Ohio NPDES permit using procedures specified in paragraph (G) of rule 3745-2-04 of the Administrative Code.

(b) If the director determines that adequate site-specific dissolved metals translator data exists, the ambient sampling may not be required.

(D) Present discharge levels. The director may fix the maximum levels of pollutants specified in an Ohio NPDES permit as either final limitations or interim limitations at the levels indicated by the applicant as its current maximum levels of discharge, even where limitations to such discharge levels are not essential to avoid violation of either applicable water quality standards or effluent standards.

(E) Treatment system design levels. The director may establish limitations for any discharge based on the level of performance that a proposed treatment system is designed to achieve, as documented in an approved permit to install under Chapter 3745-42 of the Administrative Code. These limitations are limited to those pollutants that the proposed treatment system is designed to remove.

(F) Antibacksliding.

(1) Ohio NPDES permits may not be renewed, reissued or modified to contain effluent limitations that are less stringent than the comparable final effluent limitations in the previous permit except when:

(a) Material and substantial additions or alterations to the permitted facility occurred after permit issuance that justify the application of a less stringent effluent limitation;

(b) Information is available that was not available at the time of permit issuance (other than revised regulations, guidance or test methods) and that would have justified the application of a less stringent effluent limitation at the time of permit issuance;

(c) For technology-based limitations, the director determines that technical mistakes or mistaken interpretations of law were made in issuing the permit;

(d) A less stringent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy provided that the revised limitation is a WQBEL limitation or is a limitation based on effluent limitation guidelines that was formerly based on best professional judgement;

(e) The permittee has received a modification under section 301(c), 301(g), 301(h), 301(i), 301(k), 301(n) or 316(a) of the act or rule 3745-33-04 of the Administrative Code;

(f) The permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations. In this case the limitations in the renewed, reissued, or modified permit may reflect the level of pollution control actually achieved, but shall not be less stringent than required by the effluent guidelines in effect at the time of permit renewal, reissuance or modification; or

(g) For water quality-based effluent limitations,

(i) If the water quality standard is attained and applicable antidegradation requirements of rule 3745-1-05 of the Administrative Code are met; or

(ii) If the water quality standard is not attained and the cumulative effect of changing wasteload allocations or total maximum daily loads will assure attainment of the water quality standard or the designated use not being attained is removed, and applicable antidegradation requirements of rule 3745-1-05 of the Administrative Code are met.

(2) Any increase in authorized pollutant loadings shall be subject to any applicable antidegradation requirements contained in rule 3745-1-05 of the Administrative Code.

(3) A permit shall not be renewed, reissued or modified to contain limitations that are less stringent than the applicable effluent guidelines at the time the permit is renewed, reissued or modified, or to contain effluent limits that would result in a violation of applicable water quality standards.

(G) Schedules of compliance.

(1) If construction of a point source commenced after March 23, 1997 for which an initial Ohio NPDES permit containing a water quality-based effluent limitation is issued on or after March 23, 1997, the permittee shall comply with such a discharge limitation upon commencement of the discharge, except as allowed in this paragraph:

A point source that commenced discharge after March 23, 1997, or a recommencing discharger, shall install and have in operating condition, and shall "start-up" all pollution control equipment required to meet the conditions of its permits before beginning to discharge. Within the shortest feasible time (not to exceed ninety days), the owner or operator must meet all permit conditions. The requirements of this paragraph do not apply if the owner or operator is issued a permit containing a compliance schedule under 40 C.F.R. 122.47(a)(2).

(2) The director may grant a point source an Ohio NPDES permit with a satisfactory schedule of compliance leading to compliance with section 6111. of the Revised Code, the act and its regulations. Any schedules of compliance issued under this paragraph shall require compliance as soon as possible, but not later than the applicable statutory deadline under the act. This schedule shall become a condition of the NPDES permit, if the director determines that any of the following conditions apply:

(a) The permit is reissued or modified to contain a new or more restrictive WQBEL and the discharger cannot meet the WQBEL, or there is not enough information to determine whether the discharger can meet the WQBEL; or

(b) A schedule is necessary under paragraph (C) of rule 3745-33-07 of the Administrative Code; or

(c) Authorized discharge levels specified in paragraphs (A)(1)(d) and (A)(1)(e) of this rule cannot be met; or

(d) A schedule is necessary in order for the submission of other information, reports, or documents, or to perform activities, relative to special conditions in the permit consistent with provisions of the act or federal rules promulgated thereunder, or Chapter 6111. of the Revised Code or rules adopted thereunder.

(3) A satisfactory schedule of compliance shall include the following elements:

(a) An enforceable schedule of steps and dates for their achievement, no two of which shall be separated by more than twelve months, to be taken by the applicant that will bring the discharge into compliance with authorized discharge levels at the earliest possible date but no later than those dates necessary to achieve the objectives set forth in the act;

(b) Such additional steps as the director shall specify, including interim measures, to eliminate any danger or serious threat of danger to human health and to minimize any deleterious effect on the environment. Such measures may include interim treatment techniques, reduced levels of operations, or the imposition of a connection ban;

(c) When the compliance schedule goes beyond the term of the permit, an interim effluent limit or other appropriate requirements and schedules effective upon the expiration date; these shall also be addressed in the permit fact sheet. The administrative record for the permit shall reflect the final limit, or requirements for developing limits and other appropriate requirements and schedules, and its compliance date; and

(d) A reasonable period of time, up to five years from the date of permit renewal or modification, for the permittee to comply with a WQBEL for whole effluent toxicity or a WQBEL for a pollutant excluding those listed in table 33-1 of rule 3745-1-33 of the Administrative Code. When the permit is renewed or modified to contain a new or more restrictive WQBEL, the WQBEL must be based on a whole effluent toxicity level contained in rule 3745-2-09 of the Administrative Code or on a criterion or tier II value adopted in, or derived pursuant to, Chapter 3745-1 of the Administrative Code to qualify for a compliance schedule under this rule except as provided for in this paragraph.

(i) If construction of a point source commenced on or before March 23, 1997 and a renewed or modified permit includes a limit based upon a tier II value, the permit may provide a reasonable period of time, up to two years, in which to provide additional studies necessary to develop a tier I criterion or to modify the tier II value. In such cases, the permit must require compliance with the tier II limitation within a reasonable period of time, no later than five years after permit renewal or modification, and contain a reopener clause.

(ii) The reopener clause shall authorize permit modifications if specified studies have been completed by the permittee or provided by a third-party during the time allowed to conduct the specified studies that demonstrate, to the director's satisfaction, that a revised limit is appropriate. Such a revised limit may be incorporated through a permit modification and a reasonable time period, up to five years, may be allowed for compliance. If incorporated prior to the compliance date of the original tier II limitation, any such revised limit shall not be considered less stringent for purposes of the antibacksliding provisions of paragraph (F) of this rule.

(iii) If the specified studies have been completed and do not demonstrate that a revised limit is appropriate, the director may provide a reasonable additional period of time, up to five years, for the permittee to achieve compliance with the original effluent limitation.

(iv) Where a permit is modified to include new or more stringent limitations on a date within five years of the permit expiration date, such compliance schedules may extend beyond the term of a permit consistent with paragraph (G)(3)(c) of this rule.

(4) Where necessary to achieve compliance with standards for whole effluent toxicity, the compliance schedule may include specific requirements to conduct a toxicity reduction evaluation (TRE). If a properly conducted TRE fails to identify the source, cause or treatability of the toxicant, the director may modify the permit and extend the schedule not to exceed five years in total, to include requirements for additional investigation or special control measures.

(5) No later than fourteen days following each interim date and the final date of compliance, the permittee shall provide the director with written notice of the permittee's compliance or noncompliance with interim or final requirements.

Credits

HISTORY: 2010-11 OMR pam. #9 (A), eff. 6-7-11; 2002-03 OMR 281 (A), eff. 12-30-02; 1997-98 OMR 870 (A), eff. 10-31-97; 1989-90 OMR 875 (A), eff. 2-28-90; prior EP-31-05.

RC 119.032 rule review date(s): 6-7-16; 11-30-10; 12-30-07; 3-25-02; 3-1-02

Notes of Decisions (2)

Rules are complete through November 3, 2013; Appendices are current to February 28, 2010

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Baldwin's Ohio Administrative Code Annotated
3745 Environmental Protection Agency (Refs & Annos)
Chapter 3745-49. Miscellaneous Provisions (Refs & Annos)

OAC 3745-49-04

3745-49-04 Public notice of rules

Currentness

(A) Not later than thirty days prior to the date set for a public hearing to consider adopting, amending, or rescinding a rule, public notice shall be published in the register of Ohio in accordance with section 119.03 of the Revised Code and in the Ohio EPA "Weekly Review." The public notice shall consist of a general statement of the subject matter of the proposed rule, amendment, or rule to be rescinded by the agency and the date, time, and place of the public meeting on the proposed rule.

(B) Not later than ten days prior to the effective date of the adoption, amendment, or rescission of a rule, public notice shall be published in the register of Ohio in accordance with the requirements in section 119.03 of the Revised Code and in the Ohio EPA "Weekly Review," except when the governor, pursuant to division (F) of section 119.03 of the Revised Code, declares an emergency allowing for the immediate adoption, amendment, or rescission of a rule. In such case, the public notice shall be published as expeditiously as practicable following the adoption, amendment, or rescission of an emergency rule in the register of Ohio and in the Ohio EPA "Weekly Review."

(C) The agency may take such additional steps as reasonable to inform interested persons of the time, date, and place of the public meeting and the subject matter of the proposed rule. However, the failure to give notice by any means other than specified in paragraphs (A) and (B) of this rule shall not invalidate any action which may be taken by the agency.

(D) Copies of the full text of the rule that was proposed to be adopted, amended, or rescinded shall be available prior to the effective date of such rule for any person who wishes to obtain a copy from the agency. However, the failure to furnish such copies to any person shall not invalidate any action of the agency in connection therewith.

(E) Any action that adopts, amends, or rescinds a rule is not subject to rules 3745-49-05 to 3745-49-08 of the Administrative Code.

Credits

HISTORY: 2011-12 OMR pam. # 9 (R-E), eff. 4-2-12; 1997-98 OMR 2118 (RRD); Prior EP-49-04.

RC 119.032 rule review date(s): 4-2-17; 5-25-03

Notes of Decisions (2)

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Baldwin's Ohio Administrative Code Annotated
3745 Environmental Protection Agency (Refs & Annos)
Chapter 3745-49. Miscellaneous Provisions (Refs & Annos)

OAC 3745-49-05

3745-49-05 Draft actions and proposed actions

Currentness

(A) With respect to all actions of the agency that would require the agency to afford an opportunity for an adjudication hearing in accordance with sections 119.06 and 119.07 of the Revised Code and Chapter 3745-47 of the Administrative Code, the director shall prepare a proposed action.

(1) A proposed action shall be issued to the person who is the subject of the proposed action by certified mail, return receipt requested. Service shall be complete in accordance with section 119.07 of the Revised Code and the "Ohio Rules of Civil Procedure" (2011).

(2) All proposed actions, except amended proposed actions, shall be accompanied by a notice that states when and how a person may request an adjudication hearing in accordance with Chapter 3745-47 of the Administrative Code.

(B) In any instance in which the director is not obligated to afford an opportunity for an adjudication hearing in accordance with sections 119.06 and 119.07 of the Revised Code and Chapter 3745-47 of the Administrative Code, the director may issue a draft action to the person subject thereto. All draft actions shall be sent by certified mail or first class mail to the person subject thereto and shall be accompanied by a statement as to when a final action may be issued.

(C) Draft action or proposed action process determined by effective dates.

(1) A draft action or proposed action may bear a date upon which it will become effective as a final action, or it may be issued with no such date stated. If the draft action or proposed action bears an effective date, the date shall not be prior to the following:

(a) For a proposed action, the deadline for filing an adjudication hearing request and an objection set forth in rule 3745-47-03 of the Administrative Code.

(b) For a draft action, either of the following:

(i) The deadline for filing comments set forth in paragraph (D) of this rule.

(ii) The deadline for requesting a public meeting set forth in rule 3745-49-13 of the Administrative Code.

(2) If a draft action or proposed action is issued with an effective date, amendments thereto are issued, and the amended action is entered in the director's journal, the agency need not, at the time of entry, provide notice or a copy of the amended action to the person subject thereto.

(3) If a draft action or proposed action is issued without an effective date, amendments thereto are issued, and the agency later assigns an effective date and enters the amended action in the director's journal, the agency shall mail notice to the person subject thereto informing such person of the effective date.

(D) Public comments.

(1) Any person may submit written comments relating to a draft action or proposed action.

(2) All comments received by the agency not later than thirty days after public notice in accordance with rule 3745-49-07 of the Administrative Code, or such longer period as the public notice may specify, shall be considered by the director prior to issuance of a final action. This paragraph does not apply to amended draft actions or amended proposed actions unless the agency gives public notice of the amended draft action or amended proposed action pursuant to rule 3745-49-07 of the Administrative Code.

(3) All comments or statements presented to the agency at a public meeting held pursuant to rule 3745-49-13 of the Administrative Code shall be considered by the director prior to issuance of a final action.

(E) Amendment and withdrawal of a draft action or proposed action.

(1) If a draft action or proposed action is issued with an effective date, the director may amend the draft action or proposed action at any time prior to the stated effective date. A draft action or proposed action issued without an effective date may be amended at any time prior to entry in the director's journal as a final action.

(2) The director may withdraw a draft action or proposed action prior to the effective date stated, or if no date is stated, at any time. However, the director may not withdraw a proposed action after the initiation of an adjudication proceeding in accordance with Chapter 3745-47 of the Administrative Code unless objections made in accordance with section 3745.07 of the Revised Code and rule 3745-47-03 of the Administrative Code and all requests for an adjudication hearing have been withdrawn or dismissed.

(F) A draft action or proposed action shall be issued as a final action in accordance with rule 3745-49-06 of the Administrative Code.

Credits

HISTORY: 2011-12 OMR pam. # 9 (E), eff. 4-2-12.

RC 119.032 rule review date(s): 4-2-17

Rules are complete through November 3, 2013; Appendices are current to February 28, 2010

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3745-49-05, OH ADC 3745-49-05

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West's Colorado Administrative Code

Title 1000. Department of Public Health and Environment

1002. Water Quality Control Commission (1002 Series)

5 CCR 1002-35. Regulation No. 35 Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins

5 CCR 1002-35:35.2

5 Colo. Code Regs. 1002-35:35.2 Alternatively cited as 5 CO ADC 1002-35

1002-35:35.2. PURPOSE

Currentness

These regulations establish classifications and numeric standards for the Gunnison River/Lower Dolores River Basins, including all tributaries and standing bodies of water. This includes all or parts of Gunnison, Delta, Montrose, Ouray, Mesa, Saguache and Hinsdale Counties. This also includes the lower Dolores River and its tributaries in Dolores, Montrose, Mesa and San Miguel Counties. The classifications identify the actual beneficial uses of the water. The numeric standards are assigned to determine the allowable concentrations of various parameters. Discharge permits will be issued by the Water Quality Control Division to comply with basic, narrative, and numeric standards and control regulations so that all discharges to waters of the state protect the classified uses. (See Regulation No. 31, section 31.14). It is intended that these and all other stream classifications and numeric standards be used in conjunction with and be an integral part of Regulation No.31 Basic Standards and Methodologies for Surface Water.

Credits

Amended March 30, 2013.

Current through CR, Vol. 36, No. 23, December 10, 2013.

5 CCR 1002-35:35.2, 5 CO ADC 1002-35:35.2

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Virginia Administrative Code

Title 9. Environment (Refs & Annos)

Vac Agency No. 25. State Water Control Board (Refs & Annos)

Chapter 720. Water Quality Management Planning Regulation (Refs & Annos)

9 VAC 25-720-90

9 VAC 25-720-90. Tennessee-Big Sandy River Basin.

Currentness

A. Total Maximum Daily Load (TMDLs).

TMDL #	Stream Name	TMDL Title	City/County	WBID	Pollutant	WLA	Units
1.	Guest River	Guest River Total Maximum Load Report	Wise	P11R	Sediment	317.92	LB/YR
2.	Cedar Creek	Total Maximum Daily Load (TMDL) Development for Cedar Creek, Hall/Byers Creek and Hutton Creek	Washington	O05R	Sediment	1,789.93	LB/YR
3.	Hall/Byers Creek	Total Maximum Daily Load (TMDL) Development for Cedar Creek, Hall/Byers Creek and Hutton Creek	Washington	O05R	Sediment	57,533.49	LB/YR
4.	Hutton Creek	Total Maximum Daily Load (TMDL) Development for Cedar Creek, Hall/Byers Creek and Hutton Creek	Washington	O05R	Sediment	91.32	LB/YR
5.	Clinch River	Total Maximum Daily Load Development for the Upper Clinch River Watershed	Tazewell	P01R	Sediment	206,636	LB/YR
6.	Lewis Creek	Total Maximum Daily Load Development for the Lewis Creek Watershed	Russell	P04R	Sediment	40,008	LB/YR
7.	Black Creek	General Standard Total Maximum Daily Load Development for Black Creek, Wise County, Virginia	Wise	P17R	Manganese	2,127	KG/YR
8.	Dumps Creek	General Standard Total Maximum Daily Load Development for Dumps Creek, Russell County, Virginia	Russell	P08R	Total Dissolved Solids	1,631,575	KG/YR

9 VAC 25-720-90. Tennessee-Big Sandy River Basin., 9 VA ADC 25-720-90

9.	Dumps Creek	General Standard Total Maximum Daily Load Development for Dumps Creek, Russell County, Virginia	Russell	P08R	Total Suspended Solids	316,523	KG/YR
10.	Beaver Creek	Total Maximum Daily Load Development for the Beaver Creek Watershed	Washington	O07R	Sediment	784,036	LB/YRS
11.	Stock Creek	General Standard (Benthic) Total Maximum Daily Load Development for Stock Creek	Scott	P13R	Sediment	0	T/YR
12.	Lick Creek	Lick Creek TMDLs for Benthic Impairments-Dickenson, Russell and Wise Counties	Dickenson, Russell and Wise	P10R	Sediment	63	T/YR
13.	Cigarette Hollow	Lick Creek TMDLs for Benthic Impairments-Dickenson, Russell and Wise Counties	Dickenson, Russell and Wise	P10R	Sediment	0.4	T/YR
14.	Laurel Branch	Lick Creek TMDLs for Benthic Impairments-Dickenson, Russell and Wise Counties	Dickenson, Russell and Wise	P10R	Sediment	3.9	T/YR
15.	Right Fork	Lick Creek TMDLs for Benthic Impairments-Dickenson, Russell and Wise Counties	Dickenson, Russell and Wise	P10R	Sediment	1.3	T/YR
16.	Middle Fork Holston River	Bacteria and Benthic Total Maximum Daily Load Development for Middle Fork Holston River	Washington, Smyth	O05R	Sediment	100.4	T/YR
17.	Wolf Creek	Bacteria and Benthic Total Maximum Daily Load Development for Wolf Creek	Washington	O06R	Sediment	301.6	T/YR
18.	North Fork Holston River	Mercury Total Maximum Daily Load Development for the North Fork Holston River, Virginia	Scott, Washington, Smyth, Bland, Tazewell, Russell	O10R	Total Mercury	11.9	G/YR

B. Non-TMDL waste load allocations.

Water Body	Permit No.	Facility Name	Receiving Stream	River Mile	Outfall No.	Parameter Description	WLA	Units
								WLA

9 VAC 25-720-90. Tennessee-Big Sandy River Basin., 9 VA ADC 25-720-90

						CBOD ₅ , JUN-NOV	28	KG/D
VAS-Q13R	VA0061913	Pound WWTP	Pound River	33.26	001	CBOD ₅ , DEC-MAY	47	KG/D
						TKN, JUN-NOV	28	KG/D
VAS-Q14R	VA0026565	Clintwood WWTP	Cranes Nest River	9.77	001	BOD ₅	30	KG/D
VAS-O06R	VA0026531	Wolf Creek Water Reclamation Facility	Wolf Creek	7.26	001	CBOD ₅	249.8	KG/D
VAS-P01R	VA0026298	Tazewell WWTP	Clinch River	346.26	001	CBOD ₅ , JUN-NOV	76	KG/D
VAS-P03R	VA0021199	Richlands Regional WWTF	Clinch River	317.45	001	BOD ₅ , JUN-NOV	273	KG/D
VAS-P06R	VA0020745	Lebanon WWTP	Big Cedar Creek	5.22	001	BOD ₅	91	KG/D
VAS-P11R	VA0077828	Coeburn Norton Wise Regional WWTP	Guest River	7.56	001	CBOD ₅ , JUN-NOV	303	KG/D
						CBOD ₅ , DEC-MAY	379	KG/D
VAS-P15R	VA0029564	Duffield Industrial Park WWTP	North Fork Clinch River	21.02	001	BOD ₅	36	KG/D
VAS-P17R	VA0020940	Big Stone Gap Regional WWTP	Powell River	177.38	001	CBOD ₅ , JUN-NOV	110	KG/D

30:4 VA.R. October 21, 2013, and fast-track regulations current through 30:2 September 23, 2013.

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9 25-720-90, 9 VA ADC 25-720-90

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Barclays Official California Code of Regulations Currentness

Title 23. Waters

Division 4. Regional Water Quality Control Boards

Chapter 1. Water Quality Control Plans, Policies, and Guidelines

Article 1. North Coast Region

23 CCR § 3904

§ 3904. Garcia River TMDL for Sediment.

Regional Water Board Resolution No. 98-66, adopted by the North Coast Regional Water Quality Control Board on May 28, 1998 and subsequently revised on December 10, 1998, modified the regulatory provisions in Section 4, Implementation Plans, Nonpoint Source Measures of the Water Quality Control Plan for the North Coast Region by establishing a phased total maximum daily load (TMDL), an implementation plan, and a monitoring plan for sediment in the Garcia River watershed in southwestern Mendocino County. This resolution was revised and readopted by the North Coast Regional Water Board as Resolution No. R1-2001-72 on June 28, 2001, which modified the Garcia River Water Quality Attainment Action Plan for Sediment which includes the TMDL, Implementation Plan, and Monitoring Plan.

(a) The TMDL establishes the goal of attaining specified targets by the year 2049 for migration barriers, embeddedness, fines, primary pool frequency, proportion of fine sediment in a pool, median particle sizes, large woody debris, width-to-depth ratio, thalweg profile, and stream channel opening.

(b) The TMDL identifies the loading capacity of the Garcia River watershed as 552 tons/sq.mi./year, a 60 percent reduction of the average annual sediment load, and allocates the load to all dischargers as "zero controllable discharges." The loading capacity will be measured over 40 years.

(c) The implementation plan requires landowners to identify and control all existing and future controllable discharges of sediment in accordance with specified schedules using one of three options: (1) comply with waste discharge prohibitions that prohibit the controllable discharge of any organic or earthen material into the waters of the Garcia River or to any location where it could pass into the waters of the Garcia River; or (2) comply with an approved erosion control plan and an approved site-specific management plan; or (3) comply with an approved erosion control plan and the Garcia River Management Plan. The amendment specifies that it will not impose administrative civil liabilities for violations of the prohibitions if the discharging landowner is implementing an approved erosion control plan and management plan, but will consider the need to revise the plans or to issue a cleanup and abatement order.

(d) The implementation plan specifies the purpose of an erosion control plan and requires that it contain a baseline data inventory, a sediment reduction schedule, an assessment of unstable areas, and a monitoring plan which includes an annual report.

(e) The implementation plan specifies the purpose of the management plans and provides for time extensions. It specifies how a site-specific management plan must describe land management measures to control sediment delivery and describe land management measures to improve the condition of the riparian management zone. It also sets out the Garcia River Management Plan, which specifies land management measures that apply to the following: roads, watercourse crossings, and near stream facilities; unstable areas; the riparian management zone; and, gravel mining.

(f) The implementation plan specifies conditions under which other planning efforts such as a Timber Harvest Plan or a Ranch Plan will be approvable as an erosion control plan and management plan.

(g) The implementation plan provides that certain individual land management projects that are subject to Regional Water Board review are subject to the TMDL, the implementation plan, and the monitoring plan. It also requires notification of the Regional Board by a landowner conducting a restoration project, and allows substitution of restoration in lieu of action to control a sediment delivery site.

(h) The implementation Plan provides for the adoption of group erosion control plans; whereas landowners with similar land-use activities can develop collective watershed based erosion control plans without having to show internal property boundaries.

(i) The implementation plan establishes a procedure for its initiation, and an implementation schedule which specifies interim and final compliance dates ranging from 3 to 23 years for specified activities.

(j) The monitoring plan specifies instream and hillslope monitoring parameters, monitoring protocols, and frequency of monitoring, provides that instream and hillslope monitoring by landowners (except for sediment delivery site monitoring) is voluntary, and requires an annual report describing erosion control-related activities and sediment delivery reduction results.

(k) The amendment provides that the Regional Board shall review sufficiency of progress at least once every 3 years.

HISTORY

1. New section filed 1-3-2002; operative 1-3-2002 pursuant to Government Code section 11353. Resolution No. R1-2001-72 adopted by the North Coast Regional Water Quality Control Board 6-28-2001 (Register 2002, No. 1).

This database is current through 12/13/13 Register 2013, No. 50

23 CCR § 3904, 23 CA ADC § 3904

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West's Florida Administrative Code

Title 62. Department of Environmental Protection

Chapter 62-304. Total Maximum Daily Loads

Part III. Tmdls in the Northwest Florida District

Rule 62-304.315, F.A.C.

Fla. Admin. Code r. 62-304.315

62-304.315. Chipola River Basin TMDLs.

Currentness

(1) Otter Creek. The fecal coliform total maximum daily load (TMDL) for Otter Creek is 400 counts/100mL, and is allocated as follows:

(a) The Waste load Allocation (WLA) for wastewater sources is not applicable;

(b) The WLA for discharges subject to the Department's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permitting Program is not applicable;

(c) The Load Allocation (LA) for nonpoint sources is to address anthropogenic sources in the basin such that in-stream concentrations meet the fecal coliform criteria which, based on the measured concentrations from the 2001 to 2008 period, will require a 35 percent reduction of sources contributing to exceedances of the criteria; and

(d) The Margin of Safety is implicit.

(e) While the LA and WLA for fecal coliform have been expressed as the percent reductions needed to attain the applicable Class III criteria, it is the combined reductions from both anthropogenic point and nonpoint sources that will result in the required reduction of in-stream fecal concentration. However, it is not the intent of the TMDL to abate natural background conditions.

(2) Jackson Blue Spring and Merritts Mill Pond. The nitrate TMDL is an in-stream monthly mean concentration of 0.35 mg/L and is allocated as follows:

(a) The WLA for wastewater sources is not applicable.

(b) The WLA for discharges subject to the Department's National Pollutant Discharge Elimination System Municipal Stormwater Permitting Program is not applicable.

(c) The Load Allocations for nonpoint sources are to address anthropogenic sources in the basin such that in-stream nitrate concentrations meet the TMDL target, which, based on the mean concentrations from the 2000-2011 period, will require a 90 percent reduction of nitrate.

(d) The Margin of Safety is implicit.

Credits

Adopted Oct. 15, 2009. Amended May 7, 2013.

Authority: 403.061, 403.067 FS. Law Implemented 403.061, 403.062, 403.067 FS.

Current with amendments available through December 19, 2013.

Rule 62-304.315, F.A.C., 62 FL ADC 62-304.315

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Oregon Administrative Rules Compilation Currentness
Chapter 340. Department of Environmental Quality
Water Pollution Division 41. Water Quality Standards: Beneficial Uses, Policies, and Criteria for Oregon
Basin-specific Criteria (Grande Ronde)

OAR 340-041-0154

340-041-0154 Approved TMDLs in the Basin:

The following TMDLs have been approved by EPA, and appear on the Department's web site:

Upper Grande Ronde -- Temperature, Sediment, Nitrogen and Phosphorous -- May 3, 2000

Credits

Stat. Auth.: ORS 468.020, 468B.030, 468B.035 & 468B.048

Stats. Implemented: ORS 468B.030, 468B.035 & 468B.048

Hist.: DEQ 17-2003, f. & cert. ef. 12-9-03

Current through rules published in the Oregon Bulletin dated October 1, 2013

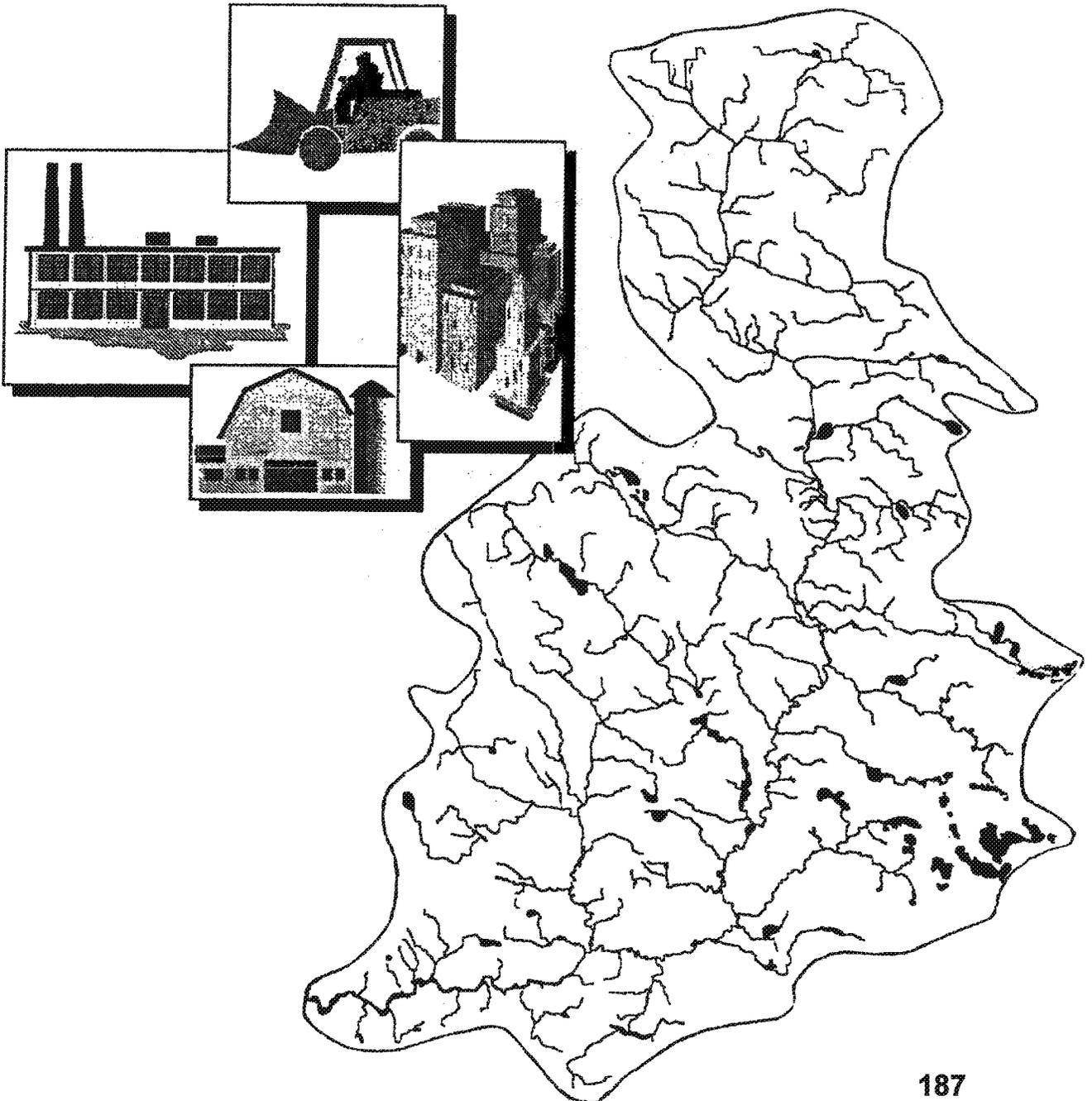
OAR 340-041-0154, OR ADC 340-041-0154

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Guidance for Water Quality-based Decisions: The TMDL Process



Guidance for Water Quality-based Decisions: The TMDL Process

**Assessment and Watershed Protection Division
U.S. Environmental Protection Agency
Washington, D.C. 20460**

This document provides guidance only. It does not establish or affect legal rights or obligations. This guidance may be reviewed and revised periodically to reflect changes in EPA's strategy for the implementation of water quality-based controls, to include new information, or to clarify and update the text. Decisions in any particular case will be made by applying the Clean Water Act and implementing regulations.

Comments are invited and will be considered in future revisions. Comments or inquiries should be directed to :

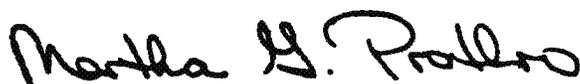
**Watershed Branch
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FOREWORD

This document, "Guidance for the Implementation of Water Quality-based Decisions: The TMDL Process," is intended to define and clarify the requirements under section 303(d) of the Clean Water Act. Its purpose is to help State water quality program managers understand the application of total maximum daily loads within the water quality-based approach to establish pollution control limits for waters not meeting water quality standards.

Water quality management has become increasingly more complicated. Problems such as toxic contaminants, sediments, nutrients, and habitat alteration result from a variety of point and nonpoint sources. The TMDL process is established under the Clean Water Act as the mechanism to address these problems in a comprehensive manner in situations where technology-based controls are not adequate.

Through this guidance we hope to reduce the uncertainties associated with TMDLs and to establish the TMDL process as an effective water quality management tool for both point and nonpoint source pollution control.



Martha G. Prothro, Director
Office of Water Regulations and Standards
US Environmental Protection Agency
Washington, D.C.

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CHAPTER 1 - INTRODUCTION AND EXECUTIVE SUMMARY

Purpose and Summary

The purpose of this guidance document is to explain the programmatic elements and requirements of the TMDL process as established by section 303(d) of the Clean Water Act and by EPA's Water Quality Planning and Management Regulations (40 CFR Part 130). A TMDL, or *total maximum daily load*, is a tool for implementing State water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby provides the basis for States to establish water quality-based controls. These controls should provide the pollution reduction necessary for a waterbody to meet water quality standards.

Section 303(d) of the Act establishes the TMDL process to provide for more stringent water quality-based controls when technology-based controls are inadequate to achieve State water quality standards. When implemented according to this guidance, the TMDL process can broaden the opportunity for public participation, expedite water quality-based National Pollutant Discharge Elimination System (NPDES) permitting, and lead to technically sound and legally defensible decisions for attaining and maintaining water quality standards. In addition, the TMDL process provides a mechanism for integrating the management of both the point and nonpoint pollution sources that

together may contribute to a waterbody's impairment.

Chapter Two of this guidance document provides a description of the TMDL process in the context of the water quality-based approach to pollution reductions. This approach includes the identification and priority ranking of water quality-limited waters, the targeting and scheduling of high priority waters, the development of TMDLs, and the implementation of control actions that should result in the attainment of water quality standards. Assessment for water quality standards attainment provides the information needed to identify water quality-limited waters and for the evaluation of the TMDL and control actions.

The development and implementation of the TMDL establishes the link between water quality standards assessment and water quality-based control actions. The third chapter of this document describes how a State should proceed with developing TMDLs once waters are targeted for action and then how to implement them. Special consideration is given to such issues as adequacy of data and information, how to consider nonpoint source contributions, and when to use a modified approach, called the phased approach, that results in a TMDL with special requirements. Implementation of the TMDL is discussed in terms of the mechanisms that are available to reduce both point and nonpoint loads.

The final chapter of this guidance describes the specific roles and responsibilities

that the States and EPA have in implementing CWA section 303(d). EPA review and approval of lists of waters submitted by the States, the priority rankings of these waters, and the TMDLs are set forth in the Water Quality Planning and Management Regulation. This guidance presents a detailed discussion of the submission of lists and TMDLs, and the review and approval processes. The States' responsibility to involve the public in the TMDL process is also highlighted in this chapter. The value and importance of public participation is also emphasized throughout the document.

This guidance focuses on the programmatic aspects rather than the technical issues of the TMDL process. Numerous technical guidance manuals have been developed by EPA to assist States in calculating wasteload allocations (WLA). A list of these manuals can be found in Appendix A along with a description of other relevant guidance documents. A brief description of selected technical considerations can be found in Appendix D and information about EPA supported models can be found in Appendix E. The other appendices provide the reader with useful and relevant information such as descriptions of related water quality programs (Appendix B) and a general outline of an EPA/State agreement for TMDL development (Appendix F).

Policies and Principles

To achieve the water quality goals of the Clean Water Act, EPA's first objective is to ensure that technology-based controls on point sources are established and maintained. Where such controls are insufficient to attain and maintain water quality standards, water quality-based controls are required. Under the authority of section 303(d) of the Clean Water Act, EPA expects States to develop TMDLs for their water quality-limited waters where technology-based effluent limitations or other legally

required pollution control mechanisms are not sufficient or stringent enough to implement the water quality standards applicable to such waters.

More intensive assessments of water quality and an evaluation of pollution sources should be conducted where water quality standard violations occur or where indications of declining water quality or habitat loss are observed. A TMDL should be developed and appropriate control actions taken on all pollution sources and follow-up monitoring should be conducted to assure that water quality standards are met. If follow-up monitoring indicates that water quality standards are not or will not be met, a revised TMDL is required.

Lack of information about certain types of pollution problems (for example, those associated with nonpoint sources or with certain toxic pollutants) should not be used as a reason to delay implementation of water quality-based controls. When developed according to a phased approach, the TMDL can be used to establish load reductions where there is impairment due to nonpoint sources or where there is a lack of data or adequate modeling. EPA regulations provide that load allocations for nonpoint sources may be based on "gross allotments" (40 CFR 130.2(g)) depending on the availability of data and appropriate techniques for predicting loads. In addition, before approving a TMDL in which some of the load reductions are allocated to nonpoint sources in lieu of additional load reductions allocated to point sources, there must be specific assurances that the nonpoint source reductions will in fact occur. Therefore, this guidance provides that in specific situations, the TMDL must include a schedule for the implementation of control mechanisms, monitoring, and assessment of standards attainment. If standards are not attained, a TMDL revision is required. Data collected through monitoring would then be useful in revising the TMDL. While this phased ap-

PRINCIPLES

Biennial Submission of Lists. Every two years, States will submit their required 303(d) identification of water quality-limited waters still needing TMDLs including a priority ranking of waterbodies to EPA. These lists may be included with a State's biennial 305(b) report or as a separate report submitted at the same time as the 305(b) report. (See page 27.)

Priority TMDLs. Along with the biennial submission of 303(d) lists, States will identify high priority waters targeted for TMDL development over the next two years. (See page 29.)

Approach for TMDL Development. When specific criteria are met, a TMDL with additional specifications for monitoring and implementation under the phased approach should be developed to provide for immediate pollution reduction and for collection of additional information. (See page 14 and 22.)

Implementation of Controls Based on TMDLs. States will continue to improve and maintain point source controls through WLAs and NPDES permits while implementing and maintaining nonpoint source controls through LAs and State or local requirements (see page 23.)

Nonpoint Source Controls. LAs for nonpoint sources will be accompanied by a description of nonpoint source load reduction goals and the procedure for reviewing and revising nonpoint source controls. Such descriptions will be referenced in reviewing TMDLs for approval. (See page 24.)

Time Schedule. TMDLs will be developed on a schedule negotiated with EPA Regional offices. Time schedules for the review of TMDLs will also be negotiated with EPA Regional offices, but will occur within the statutory requirement of 30 days. (See pages 29 and 32.)

Geographic Targeting. States should develop TMDLs that account for both point and nonpoint sources on a geographically targeted waterbody basis. Geographically targeted waterbodies could include segments, basins, and watersheds as defined by the States. (See page 14.)

Threatened Good Quality Waters. States are expected to include threatened good quality waters in their identification and prioritization of waters still needing TMDLs. (See page 12.)

Public Participation. States are expected to ensure appropriate public participation in the TMDL development and implementation process. (See page 30.)

Environmental Indicators. States should measure the effectiveness of control actions by monitoring changes in ambient water quality or biological conditions. Measuring environmental progress or showing environmental results is a critical need and has become a key element in EPA's strategic planning process.

proach requires additional monitoring of the waterbody to evaluate the effectiveness of nonpoint source management measures or more stringent effluent limitations, it does not delay the establishment of such control mechanisms where there is a lack of information.

As required by the Clean Water Act, States are to identify and report to EPA their water quality-limited waters. These waters are to be identified according to the provisions established in EPA's Water Quality Management and Planning Regulation at 40

CFR 130.7(b). The identified waters should include those impaired due to point and nonpoint sources and may include threatened good quality waters. EPA is establishing with this guidance that States should submit to EPA, in conjunction with the 305(b) water quality assessment reports, in April of 1992, the list of water quality-limited waters that still require TMDLs. Every two years thereafter, a State should update its list of 303(d) waters and submit it with the 305(b) report. This guidance describes in detail the identification process and the specific information that should be submitted to EPA.

As required by the Clean Water Act, States are to rank by priority all waters needing TMDLs. Since each State has a unique organizational arrangement for the protection of water quality, this guidance does not prescribe how a State should set its priorities. However, priority ranking should result in the identification of targeted waterbodies for which immediate TMDL development should be undertaken. In the biennial submission of their updated list of 303(d) waters, EPA expects States to identify the waters targeted for TMDL development in the forthcoming two years.

Historically, the water quality-based pollution control program has focused on reducing the load of chemical contaminants (e.g. nutrients, biochemical oxygen demand, metals) to waterbodies. EPA has defined the terms load, loading capacity, and load allocation in regulations and technical guidance documents so that wasteload allocations can be calculated. Chemical contaminant problems will continue to constitute a major portion of pollution control efforts and the terms "load" and "load reduction" are used throughout this document. However, it is becoming increasingly apparent that in some situations water quality standards -- particularly designated uses and biocriteria -- can only be attained if non-chemical factors such as hydrology, channel morphology, and habitat are also addressed. EPA recognizes that it is appropriate to use the TMDL process to establish control measures for quantifiable non-chemical parameters that are preventing the attainment of water quality standards. Control measures, in this case, would be developed and implemented to meet a TMDL that addresses these parameters in a manner similar to chemical loads. As methods are developed to address these problems, EPA and the States will incorporate them into the TMDL process.

The principles (see page 3) established by EPA in this guidance reflect these policies

and reaffirm the existing regulatory requirements. They are intended to help States manage their surface water quality programs in a manner consistent with the intent and requirements of section 303(d) of the CWA and the Water Quality Planning and Management Regulations in 40 CFR 130. These principles are discussed throughout this guidance.

Clean Water Act Section 303(d)

Section 303(d) of the Act (see next page) requires States to identify waters that do not or are not expected to meet applicable water quality standards with technology-based controls alone. Waters impacted by thermal discharges are also to be identified. States are required to establish a priority ranking for these waters, taking into account the pollution severity and designated uses of the waters.

Once the identification and priority ranking of water quality-limited waters are completed, States are to develop TMDLs at a level necessary to achieve the applicable State water quality standards. Completed TMDLs must allow for seasonal variations and a margin of safety that accounts for any lack of knowledge concerning the relationship between effluent limitations and water quality.

States are required to submit to EPA the "waters identified and loads established" for review and approval by EPA. If disapproved, EPA will establish the TMDLs at levels necessary to implement the applicable water quality standards. For waters that are not identified under sections 303(d)(1)(A) and (1)(B) as being water quality-limited, States are to estimate TMDLs for information purposes.

Subsections 4(A) and (B) were added to CWA section 303(d) with the 1987 amendments in order to ensure consistency with the water quality standards process for use clas-

FEDERAL WATER POLLUTION CONTROL ACT

Section 303(d)

(1)(A) Each State shall identify those waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301(b)(1)(B) are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.

(B) Each State shall identify those waters or parts thereof within its boundaries for which controls on thermal discharges under section 301 are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.

(C) Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the Administrator identifies under section 304(a)(2) as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

(D) Each State shall estimate for the waters identified in paragraph (1)(B) of this subsection the total maximum daily thermal load required to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal water quality criteria for such protection and propagation in the identified waters or parts thereof.

(2) Each State shall submit to the Administrator from time to time, with the first such submission not later than one hundred and eighty days after the date of publication of the first identification of pollutants under section 304(a)(2)(D), for his approval the waters identified and the loads established under paragraphs (1)(A), (1)(B), (1)(C), and (1)(D) of this subsection. The Administrator shall either approve or disapprove such identification and load not later than thirty days after the date of submission. If the Administrator approves such identification and load, such State shall incorporate them into its current plan under subsection (e) of this section. If the Administrator disapproves such identification and load, he shall not later than thirty days after the date of such disapproval identify such waters in such State and establish such loads for such waters as he determines necessary to implement the water quality standards applicable to such waters and upon such identification and establishment the State shall incorporate them into its current plan under subsection (e) of this section.

(3) For the specific purpose of developing information, each State shall identify all waters within its boundaries which it has not identified under paragraph (1)(A) and (1)(B) of this subsection and estimate for such waters the total maximum daily load with seasonal variations and margins of safety, for those pollutants which the Administrator identifies under section 304(a)(2) as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish and wildlife.

(4) LIMITATIONS ON REVISION OF CERTAIN EFFLUENT LIMITATIONS.--

(A) STANDARD NOT ATTAINED.--For waters identified under paragraph (1)(A) where the applicable water quality standard has not yet been attained, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section may be revised only if (i) the cumulative effect of all such revised effluent limitations based on such total maximum daily load or waste load allocation will assure the attainment of such water quality standard, or (ii) the designated use which is not being attained is removed in accordance with regulations established under this section.

(B) STANDARD ATTAINED.--For waters identified under paragraph (1)(A) where the quality of such waters equals or exceeds levels necessary to protect the designated use for such waters or otherwise required by applicable water quality standard, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section, or any water quality standard established under this section, or any other permitting standard may be revised only if such revision is subject to and consistent with the antidegradation policy established under this section.

sification and with the NPDES antibacksliding requirements.

Water Quality Planning and Management Regulation

EPA's Water Quality Planning and Management Regulation at 40 CFR Part 130 establishes the program and policies that implement CWA section 303(d) requirements. Section 130.7 describes the TMDL process and the State's responsibility for identifying waters still requiring TMDLs, setting priorities and developing TMDLs, submitting the waters identified with priority rankings and the TMDLs to EPA for approval, and the incorporation of the TMDLs into the State's Water Quality Management Plan.

To implement the program, the regulation establishes the following definitions for loading capacity, load allocation, wasteload allocation, total maximum daily load, water quality-limited segments and water quality-limited segments still requiring TMDLs. A definition for margin of safety (MOS) is also provided.

Loading capacity (LC) -- The greatest amount of loading that a water can receive without violating water quality standards. (40 CFR 130.2(f))

Load allocation (LA) -- The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Wherever possible, natural and nonpoint source loads should be distinguished. (40 CFR 130.2(g))

Wasteload allocation (WLA) -- The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation. (40 CFR 130.2(h))

Total maximum daily load (TMDL) -- The sum of the individual WLAs for point sources and LAs for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure that relate to a State's water quality standard. If Best Management Practices (BMPs) or other nonpoint source pollution control actions make more stringent load allocations practicable, then WLAs can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs. (40 CFR 130.2(i))

In practice, the terms TMDL and WLA have at times been incorrectly used interchangeably instead of considering both LA and WLA as components of a TMDL. A TMDL, as referenced in this guidance, includes both WLAs and LAs, established in accordance with EPA's regulations.

Water quality-limited segments -- Those water segments that do not or are not expected to meet applicable water quality standards even after the application of technology-based effluent limitations required by sections 301(b) and 306 of the Act. (40 CFR 130.2(j)) Technology-based controls include, but are not limited to, best practicable control technology currently available (BPT) and secondary treatment.

Water quality-limited segments still requiring TMDLs -- Segments identified through a process established by paragraph

130.7(b)(1) of EPA's Water Quality Planning and Management Regulation. Waters need TMDLs when certain specified pollution reduction requirements (identified in the regulation under subparagraphs (b)(1)(i), (ii), and (iii)) are not stringent enough to implement water quality standards for such waters. The specified pollution controls include technology-based effluent limitations required by sections 301(b) and 306 of the Clean Water Act and other appropriate requirements that can provide a more stringent level of treatment than federally-required technology-based effluent limitations. (40 CFR 130.7(b)(1))

This document contains the terms 303(d) waters and 303(d) lists. These waters (and waters on the 303(d) lists) are those water quality-limited segments that still require TMDLs as defined by the regulation. Thus, a water segment that meets its water quality stan-

dards after the implementation of water quality-based control actions would retain its water quality-limited status but would no longer be on a State's 303(d) list of waters still requiring TMDLs.

Margin of Safety (MOS) -- A required component of the TMDL that accounts for the uncertainty about the relationship between the pollutant loads and the quality of the receiving waterbody. (CWA section 303(d)(1)(C)) The MOS is normally incorporated into the conservative assumptions used to develop TMDLs (generally within the calculations or models) and approved by EPA either individually or in State/EPA agreements. If the MOS needs to be larger than that which is allowed through the conservative assumptions, additional MOS can be added as a separate component of the TMDL (in this case, quantitatively, a TMDL = LC = WLA + LA + MOS).

CHAPTER 2 - THE WATER QUALITY-BASED APPROACH TO POLLUTION CONTROL

The Water Quality Planning and Management Regulation (40 CFR 130) links a number of Clean Water Act sections, including section 303(d), to form the water quality-based approach to protecting and cleaning up the nation's waters (diagrammed in Figure 1). This chapter describes the overall approach for the development of TMDLs and subsequent implementation of water quality-based point and nonpoint source pollution control measures based on water quality standards. Other related guidance on various aspects of the water quality-based approach are described in Appendix A.

The water quality-based approach emphasizes the overall quality of water within a waterbody and provides a mechanism through which the amount of pollution entering a waterbody is controlled based on the intrinsic conditions of that body of water and the standards set to protect it. This approach begins with the determination of waters not meeting (or not expected to meet) water quality standards after the implementation of technology-based controls (such as BPT and secondary treatment). Waters identified through this process are considered water quality-limited and must be prioritized. An overall plan to manage the excess pollutants in each waterbody can then be developed. The necessary limitations on the introduction of pollutants to the waterbody

are identified through the development of a TMDL under section 303(d).

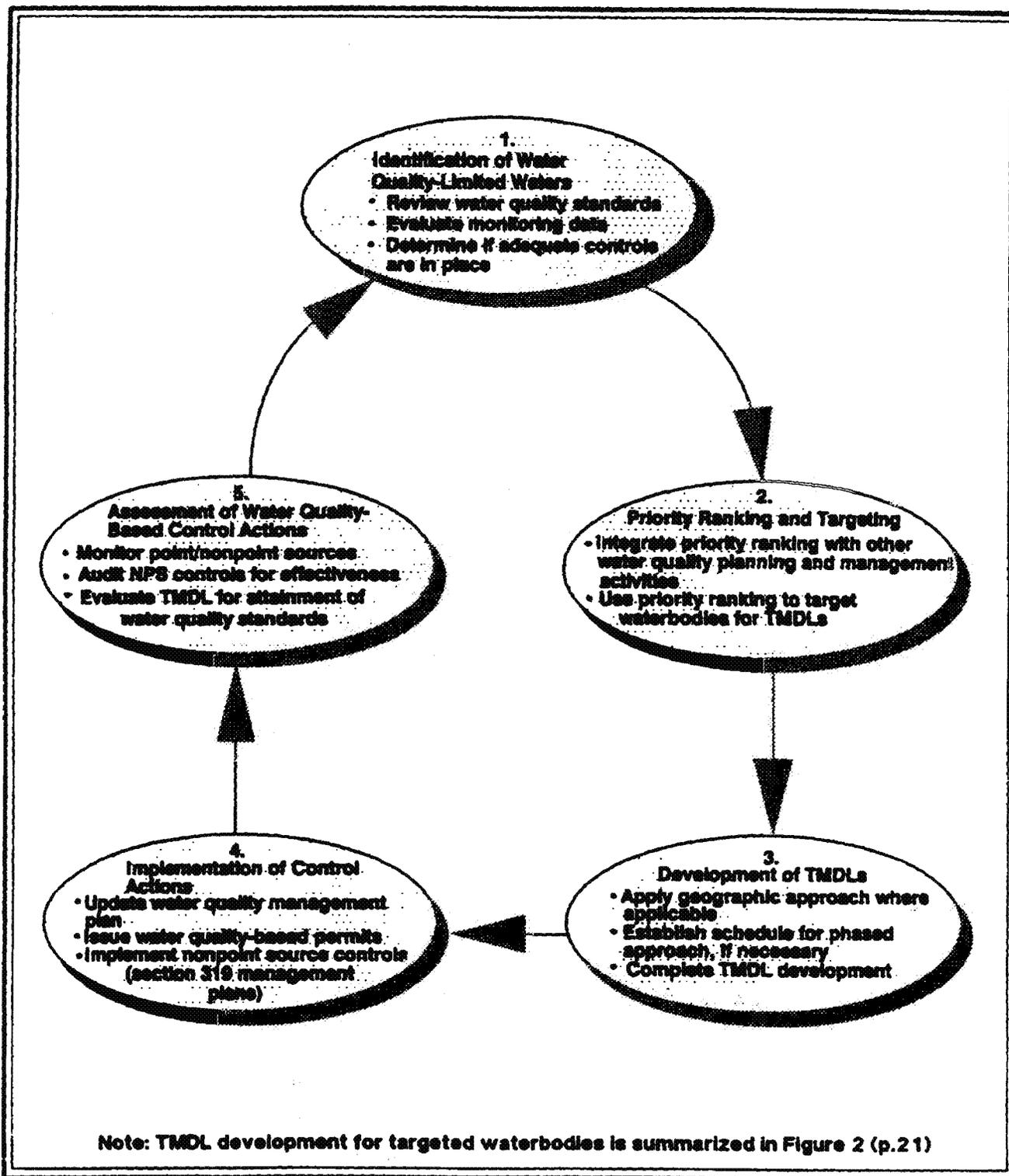
Previous practices for implementing 303(d) have focused primarily on point sources and wasteload allocations (WLA). All water quality-based permit limits are based on a WLA. The WLA is either reviewed individually by EPA or where there exists a State/EPA technical agreement, is developed consistent with that agreement.¹ In recent years nonpoint source contributions to water quality problems have become better understood and it is now clear that EPA and State implementation of 303(d) must encompass nonpoint source pollution problems and seek to address problems occurring over large geographic areas. As a consequence, this document describes a more rigorous process for implementing 303(d) and reinforces the need to develop TMDLs that include load allocations (LA) as well as wasteload allocations.

As shown in Figure 1, the water quality-based approach contains the following steps:

1. Identification of water quality-limited waters still requiring TMDLs.
2. Priority ranking and targeting.
3. TMDL development.

¹ USEPA. 1985. Guidance for State Water Monitoring and Wasteload Allocation Program. OW/OWRS, EPA 440/4-85-031. Washington, D.C.

Figure 1
General Elements of the
Water Quality-Based Approach



4. Implementation of control actions.
5. Assessment of water quality-based control actions.

Steps 1, 2, and 3 are addressed by the CWA in section 303(d). Steps 4 and 5 are integral parts of the process and are briefly described in this document.

States are to review and revise water quality standards, as necessary, every three years and NPDES permits are to be re-evaluated and issued every five years. The water quality-based approach links these two processes and is, therefore, an ongoing process of evaluation and modification. In addition to standards and permits revisions, section 319(b) nonpoint source (NPS) management plans can and should be continually updated as well.

Step One: Identification of Water Quality-Limited Waters

The water quality-based approach to pollution control begins with the identification of problem waterbodies. State water quality standards form the basis and "yardstick" by which States can assess the waterbody status and implement needed pollution controls. State water quality standards include three elements: designated uses for the waterbody, criteria (physical, chemical, and biological) to protect the designated uses, and an antidegradation statement. States need to identify those waters not meeting any one of these components of water quality standards.

EPA's Water Quality Planning and Management Regulation establishes the process for identifying water quality-limited segments still requiring TMDLs. Waters require TMDLs when certain pollution control requirements (see box) are not stringent enough to implement water quality standards for such waters.

Identifying Waters Still Requiring TMDLs: 40 CFR 130.7(b)

(b)(1) Each State shall identify those water quality segments still requiring WLAs/LAs and TMDLs within its boundaries for which:

- (i) Technology-based effluent limitations required by sections 301(b), 306, 307, or other sections of the act;
- (ii) More stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the Act, or Federal authority (e.g., law, regulation, or treaty); and
- (iii) Other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority

are not stringent enough to implement any water quality standard applicable to such waters.

The most widely applied water pollution controls are the technology-based effluent limitations required by section 301(b) and 306 of the Clean Water Act. In some cases, a State or local authority may establish enforceable requirements beyond technology-based controls. Examples of such requirements may be those that (1) provide more stringent NPDES permit limitations to protect a valuable water resource or (2) provide for the management of certain types of nonpoint source pollution.

To exempt a water quality-limited water from the TMDL process, the pollution control requirements cited in the regulation under 130.7(b)(i),(ii), and (iii) (see box) must be established and enforced by Federal, State, or local laws or regulations and be stringent enough that, when applied, the receiving waterbody will meet water quality standards. These requirements must also be specifically applicable to the particular water quality problem and, if not yet implemented, a schedule for the timely implementation of

such requirements must be established. Chapter 4 contains more specific requirements pertaining to identification of water quality-limited waters still requiring TMDLs (see p. 27).

Identification of threatened good quality waters is an important part of this approach. Adequate control of new discharges from either point or nonpoint sources should be a high priority for States to maintain the existing use or uses of these waterbodies. In the identification of threatened waters it is important that the 303(d) process consider the water quality standards program to ensure that a State's antidegradation policies as established in State law are followed.

By identifying threatened good quality waters, States take a more proactive, "pollution prevention" approach to water quality management (see below).

Pollution Prevention Advantages

Consistent with 40 CFR 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.

Encourages States to maintain and protect existing water quality.

Easier and less costly in the long term to prevent impairments rather than retrofit controls to clean up pollution problems.

Meets EPA objectives to support the State's collection of data on impacted or threatened waters.

Each State may have different methods for identifying and compiling information on the status of its waterbodies depending on its specific programmatic or cross-programmatic needs and organizational arrangements. Typically, States utilize both existing information and new data collected from on-

going monitoring programs to assess whether water quality standards are being met, and to detect trends.

States assess their waters for a variety of purposes, including the targeting of cleanup activities, assessing the extent of contamination at potential Superfund sites, and for meeting federally mandated reporting requirements. While the identification of water quality-limited waters may appear to be a major task for the States, a significant amount of this work has already begun or has been completed under sections 305(b), 304(l), 314(a), and 319(a) of the Clean Water Act as amended in 1987. (Appendix B provides a summary of these supporting CWA programs.)

Section 305(b) requires States to prepare a water quality inventory every two years to document the status of waterbodies that have been assessed. Under section 304(l), States identified all surface waters adversely affected by toxic (65 classes of compounds), conventional (such as BOD, total suspended solids, fecal coliform, and oil and grease), and nonconventional (such as ammonia, chlorine, and iron) pollutants from both point and nonpoint sources. Under section 314(a), States identified a list of publicly owned lakes for which uses are known to be impaired by point and nonpoint sources. Section 319 State Assessment Reports identified waters adversely affected by nonpoint sources of pollution. Lists prepared to satisfy requirements under section 305(b), 304(l), 314(a) and 319 should be very useful in preparing 303(d) lists.

Other existing and readily available data and information sources should be utilized in preparing section 303(d) lists. See, for example, Appendix C, which presents screening categories similar to those found in current regulations promulgating the 304(l) requirements.² Figure C-1 in the Appendix depicts a sample process for identify-

² 40 CFR 130.10 (d)(6)

ing 303(d) waters. Other data sources are listed as an appendix of the Final Guidance for Implementation of Requirements Under Section 304(l) of the Clean Water Act as Amended, March 1988. The Toxic Chemical Release Inventory (TRI) developed under Title III, Superfund and Reauthorization Act (SARA) is an important information source as well as any relevant State-run database.

Section 303(d) requires States to identify those water quality-limited waters needing TMDLs. States should regularly update their lists of waters (or the databases which store the information to produce the lists) as assessments are made and report these lists to EPA once every two years. States should include, in their biennial 303(d) lists, information on which waterbodies have been added or deleted from the list and which waterbodies were assessed since the last reporting period. (See page 27 for further details on submission of lists to EPA.)

Step Two: Priority Ranking and Targeting

Once waters needing additional controls have been identified, a State prioritizes its list of waters using established ranking processes that should consider all water pollution control activities within the State. Priority ranking has traditionally been a process defined by the State and may vary in complexity and design. A priority ranking should enable the State to make efficient use of its available resources and meet the objectives of the Clean Water Act.

The Clean Water Act states that the priority ranking for such waters must take into account the severity of the pollution and the uses to be made of such waters. Several documents (see box) are available from EPA to assist States in priority setting.

Priority Setting Documents

Setting Priorities: The Key to Nonpoint Source Control (OWRS, July 1987).

Selecting Priority Nonpoint Source Projects: You Better Shop Around (OW and OPPE, August 1989, EPA 506/2-89/003).

The Lake and Reservoir Restoration and Guidance Manual, First Edition (OWRS, EPA 440/5-88-002).

The Lake and Reservoir Restoration and Guidance Manual, Second Edition (OWRS, EPA 440/4-90-006).

State Clean Water Strategies: Meeting the Challenges for the Future (OW, December 1988).

According to EPA's State Clean Water Strategy document: "Where all water quality problems cannot be addressed immediately, EPA and the States will, using multi-year approaches, set priorities and direct efforts and resources to maximize environmental benefits by dealing with the most serious water quality problems and the most valuable and threatened resources first."

Targeting high priority waters for TMDL development should reflect an evaluation of the relative value and benefit of waterbodies within the State and take into consideration the following:

- Risk to human health and aquatic life.
- Degree of public interest and support.
- Recreational, economic, and aesthetic importance of a particular waterbody.
- Vulnerability or fragility of a particular waterbody as an aquatic habitat.

- Immediate programmatic needs such as wasteload allocations needed for permits that are coming up for revisions or for new or expanding discharges, or load allocations for needed BMPs.
- Waters and pollution problems identified during the development of the section 304(1) "long list."
- Court orders and decisions relating to water quality.
- National policies and priorities such as those identified in EPA's Annual Operating Guidance.

States are required to submit their priority rankings to EPA for review. EPA expects all waters needing TMDLs to be ranked, with "high" priority waters -- targeted for TMDL development within two years following the listing process -- identified. (See page 29 for further details on submission of priorities to EPA.)

In order to effectively develop and implement TMDLs for all waters identified, States should establish multi-year schedules that take into consideration the immediate TMDL development for targeted waterbodies and the long-range planning for addressing all water quality-limited waters still requiring TMDLs. While it would be expected that these schedules would change when a State's priorities change in response to "hot spots" or critical situations at any given time, a long-range schedule provides several advantages to a State (see box).

Step Three: TMDL Development

For a water quality-limited water that still requires a TMDL, a State must establish a TMDL that quantifies pollutant sources and allocates allowable loads to the contrib-

Advantages to Long-range Schedules

- Encourages integration with the permitting cycle, the water quality standards revisions, and other required water quality management activities.
- Allows for long-term monitoring which may be needed to assess control action.
- Sets consistency in developing TMDLs.
- Establishes a basis for setting overall water quality management priorities.
- Supports a geographic approach for TMDL development for targeted waterbodies.

uting point and nonpoint sources so that the water quality standards are attained for that waterbody. The development of TMDLs should be accomplished by setting priorities, considering the geographic area impacted by the pollution problem, and, in some cases, using a phased approach to establishing control measures based on the TMDL.

The TMDL is developed using one or a combination of three technical approaches to protect receiving water quality: the chemical specific approach, the whole effluent toxicity approach, and the biocriteria/bioassessment approach. The chemical specific approach is one where loadings are evaluated in terms of the impact on physical-chemical water quality conditions (e.g., dissolved oxygen or toxicant concentrations). While an integrated approach that considers all three techniques is preferred for the protection of aquatic life, the chemical specific approach is usually the one used to address loads that affect those water quality standards which protect human health.

Many water pollution concerns are area-wide phenomena that are caused by multiple dischargers, multiple pollutants (with poten-

tial synergistic and additive effects), or non-point sources. Atmospheric deposition and ground water discharge may also result in significant pollutant loadings to surface waters. As a result, EPA recommends that States develop TMDLs on a geographical basis (e.g., by watershed) in order to efficiently and effectively manage the quality of surface waters.

The TMDL process is a rational method for weighing the competing pollution concerns and developing an integrated pollution reduction strategy for point and nonpoint sources. The TMDL process allows States to take a holistic view of their water quality problems from the perspective of instream conditions. Although States may define a waterbody to correspond with their current programs, it is expected that States will consider the extent of pollution problems and sources when defining the geographic area for developing TMDLs. In general, the geographical approach for TMDL development supports sound environmental management and efficient use of limited water quality program resources. In cases where TMDLs are developed on watershed levels, States should consider modifying permitting cycles so that all permits in a given watershed expire at the same time.

For traditional water pollution problems, such as dissolved oxygen depletion and nutrient enrichment, there are well validated models that can predict effects with known levels of uncertainty. This is not true for such non-traditional pollution problems as urban stormwater runoff and pollutants that involve sediment and bioaccumulative pathways. Predictive modeling for these problems therefore uses conservative assumptions, but in many cases the degree of certainty cannot be well quantified until

more data becomes available to develop sensitivity analyses and model comparisons. For TMDLs involving these non-traditional problems, the margins of safety should be increased and additional monitoring required to verify attainment of water quality standards and provide data needed to recalculate the TMDL, if necessary.

EPA regulations provide that load allocations for nonpoint sources and/or natural background "are best estimates of the loading which may range from reasonably accurate estimates to gross allotments..."³ A phased approach to developing TMDLs may be appropriate where estimates are based on limited information. The phased approach is a TMDL that includes monitoring requirements and a schedule for re-assessing TMDL allocations to ensure attainment of water quality standards. Uncertainties that cannot be quantified may also exist for certain pollutants discharged primarily by point sources. In such situations a large margin of safety and follow-up monitoring is appropriate.

Where nonpoint source controls are involved, the phased approach is also necessary. Under the CWA, the only federally enforceable controls are those for point sources through the NPDES permitting process. In order to allocate loads among both nonpoint and point sources, there must be reasonable assurances that nonpoint source reduction will in fact be achieved. Where there are not reasonable assurances, under the CWA, the entire load reduction must be assigned to point sources. With the phased approach, the TMDL includes a description of the implementation mechanisms and the schedule for the implementation of non-point source control measures.

3 40 CFR 130.2(g).

By pursuing the phased approach where applicable, a State can move forward to implement water quality-based control measures and adopt an explicit schedule for implementation and assessment. States can also use the phased approach to address a greater number of waterbodies including threatened waters or watersheds which would otherwise not be managed. Specific requirements relating to the phased approach are discussed in Chapter 3.

Step Four: Implementation of Control Actions

Once a TMDL or a phased TMDL has been established for a waterbody (or watershed) and the appropriate source loads developed, implementation of control actions should proceed. The State or EPA is responsible for implementation, the first step being to update the water quality management plan. Next, point and nonpoint source controls should be implemented to meet wasteload allocations and load allocations, respectively. Various pollution allocation schemes (i.e., determination of allowable pollution among different pollution sources in the same waterbody) can be employed by States to optimize alternative point and nonpoint source management strategies.

The NPDES permitting process is used to limit effluent from point sources. Chapter 3 provides a more complete description of the NPDES process and how it fits into the water quality-based approach to permitting. Construction decisions regarding publicly owned treatment works (POTWs) and advanced treatment facilities must also be based on the most stringent of technology-based or water quality-based limitations. These decisions should be coordinated so that the facility plan for the discharge is consistent with the limitations in the permit.

In the case of nonpoint sources, both State and local laws may authorize the im-

plementation of nonpoint source controls such as the installation of Best Management Practices (BMPs). Section 319 State management programs can be a useful tool to implement nonpoint source control measures and ensure improved water quality. Many BMPs, however, may be implemented even where regulatory programs do not exist. In such cases, a State needs to document the coordination which may be necessary among State and local agencies, landowners, operators, and managers and then evaluate BMP implementation, maintenance, and overall effectiveness to ensure that load allocations are achieved. Chapter 3 discusses some of the technical issues associated with implementation of nonpoint source control measures.

Step Five: Assessment of Water Quality-Based Control Actions

Throughout the previous four steps, monitoring is a crucial element of water quality-based decision making. In this step, monitoring provides data for an independent evaluation of whether the TMDL and control actions that are based on the TMDL protect or improve the environment and are sufficient to meet changing waterbody protection requirements such as revised water quality standards or changing pollution sources (e.g., urbanization).

Monitoring programs often begin with baseline monitoring. Such monitoring should not be regarded as a prerequisite to implementing control measures for a waterbody. If monitoring has not yet begun, control measures and monitoring should be implemented simultaneously to assure that pollution abatement activities are not delayed.

In the case of point sources, assessments are facilitated in that dischargers are required to provide reports on compliance

with NPDES permit limits. In some instances, dischargers may also be required in the permit to assess impact of their discharge on the receiving water. A monitoring requirement can be put into the permit as a special condition as long as the information is collected for purposes of writing a permit limit. States are also encouraged to use innovative monitoring programs (e.g., cooperative monitoring⁴ and volunteer monitoring⁵) to provide for adequate point and nonpoint source monitoring coverage.

States should also ensure that effective monitoring programs are in place for evaluating nonpoint source control measures. EPA recognizes monitoring as a high priority activity in a State's nonpoint source management program.⁶ To facilitate the implementation and evaluation of NPS controls States should consult current guidance.^{7,8}

4 USEPA. 1984. *Planning and Managing Cooperative Monitoring Projects*. OW/OWRS. EPA 440/4-84-018. Washington, D.C.

5 USEPA. 1990. *Volunteer Water Monitoring: A Guide for State Managers*. OW, EPA 440/4-90-010. Washington, D.C.

6 55 FR 35262, August 28, 1990.

7 USEPA. February, 1988. *Draft Nonpoint Source Monitoring and Evaluation Guide*. OW/NPS Branch. Washington, D.C.

8 USEPA. September 19, 1989. *Nonpoint Source Monitoring and Reporting Requirements for Watershed Implementation Grants*. OW/NPS Branch. Washington, D.C.

CHAPTER 3 - DEVELOPMENT AND IMPLEMENTATION OF THE TMDL

Development of the TMDL

The TMDL process is an important element of the water quality-based approach. It links the development and implementation of control actions to the attainment of water quality standards. This chapter expands the discussion introduced in Chapter 2 on how to develop TMDLs and implement controls for water quality-limited waters. Appendix D and E provide supporting information on some important technical considerations and EPA supported models for TMDL development.

The TMDL Objective

As stated in 40 CFR 131.2, "[water quality] standards serve the dual purposes of establishing the water quality goals for a specific waterbody and serve as the regulatory basis for the establishment of water-quality-based treatment controls and strategies beyond the technology-based levels of treatment required by section 301(b) and 306 of the Act." Standards also contain antidegradation provisions to prevent the degradation of existing water quality.

The objective of a TMDL is to allocate allowable loads among different pollutant sources so that the appropriate control actions can be taken and water quality standards achieved. The TMDL provides an estimate of pollutant loadings from all sources and predicts the resulting pollutant concentrations. The TMDL determines the allowable loads and provides the basis for

establishing or modifying controls on pollutant sources.

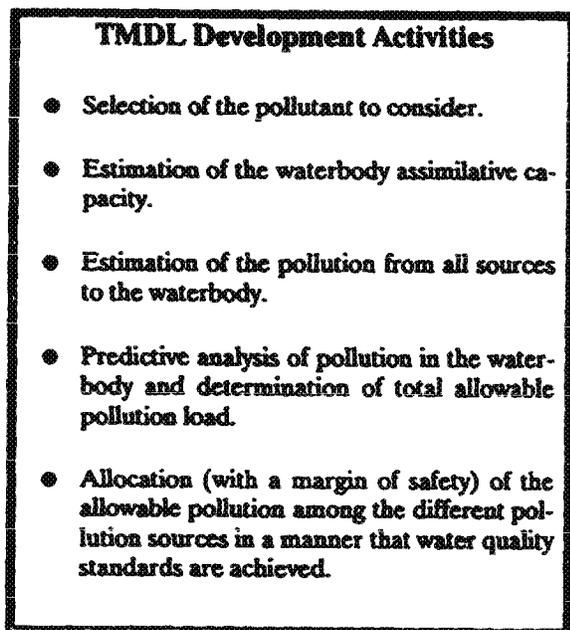
The TMDL Process

The total pollutant load to a waterbody is derived from point, nonpoint, and background sources. Pollutant loads may be transported into waterbodies by direct discharge, overland flow, ground water, or atmospheric deposition. The TMDL concept has successfully been applied to develop wasteload allocations for point source discharges in low flow situations where nonpoint sources are not a concern. TMDLs can and should be used, however, to consider the effect of all activities or processes that cause or contribute to the water quality-limited conditions of a waterbody. Activities may relate to thermal changes, flow changes, sedimentation, and other impacts on the aquatic environment. Control measures to implement TMDLs, therefore, are not limited to NPDES authorities but should also be based on State and local authorities and actions to reduce nonpoint source pollution.

An example of how to apply such a TMDL might be in the control of excess sediment which causes loss of a beneficial use of a waterbody. If standards, established to protect against the loss of a beneficial use (e.g., fish spawning), are not met and, if the process causing the problem (i.e., excess sedimentation) can be quantified, then it may be appropriate to use the TMDL process to assess the adverse impacts and potentially set controls on the problem activity. In this

example, the activity might be urban development for which effective controls can be implemented to reduce sediment loading to the impacted waterbody.

The TMDL process distributes portions of the waterbody's assimilative capacity to various pollution sources – including natural background sources and a margin of safety – so that the waterbody achieves its water quality standards. The analyst may use predictive modeling procedures to evaluate alternative pollution allocation schemes in the same waterbody. By optimizing alternative point and nonpoint source control strategies, the cost effectiveness and pollution reduction benefits of allocation tradeoffs may be evaluated (see Appendix D). The approach normally used to develop a TMDL for a particular waterbody or watershed consists of five activities (see box).



In developing a TMDL it is important to keep in mind certain constraints on the WLA portion that are imposed by antidegradation regulatory provisions. The WLA will normally result in new or more stringent water

quality-based limits than those contained in a previously issued permit. In a limited number of cases, however, it is conceivable that less stringent water quality-based limits could result. In these cases, permit limits must conform to the antidegradation provisions contained in section 402(o) of the CWA.

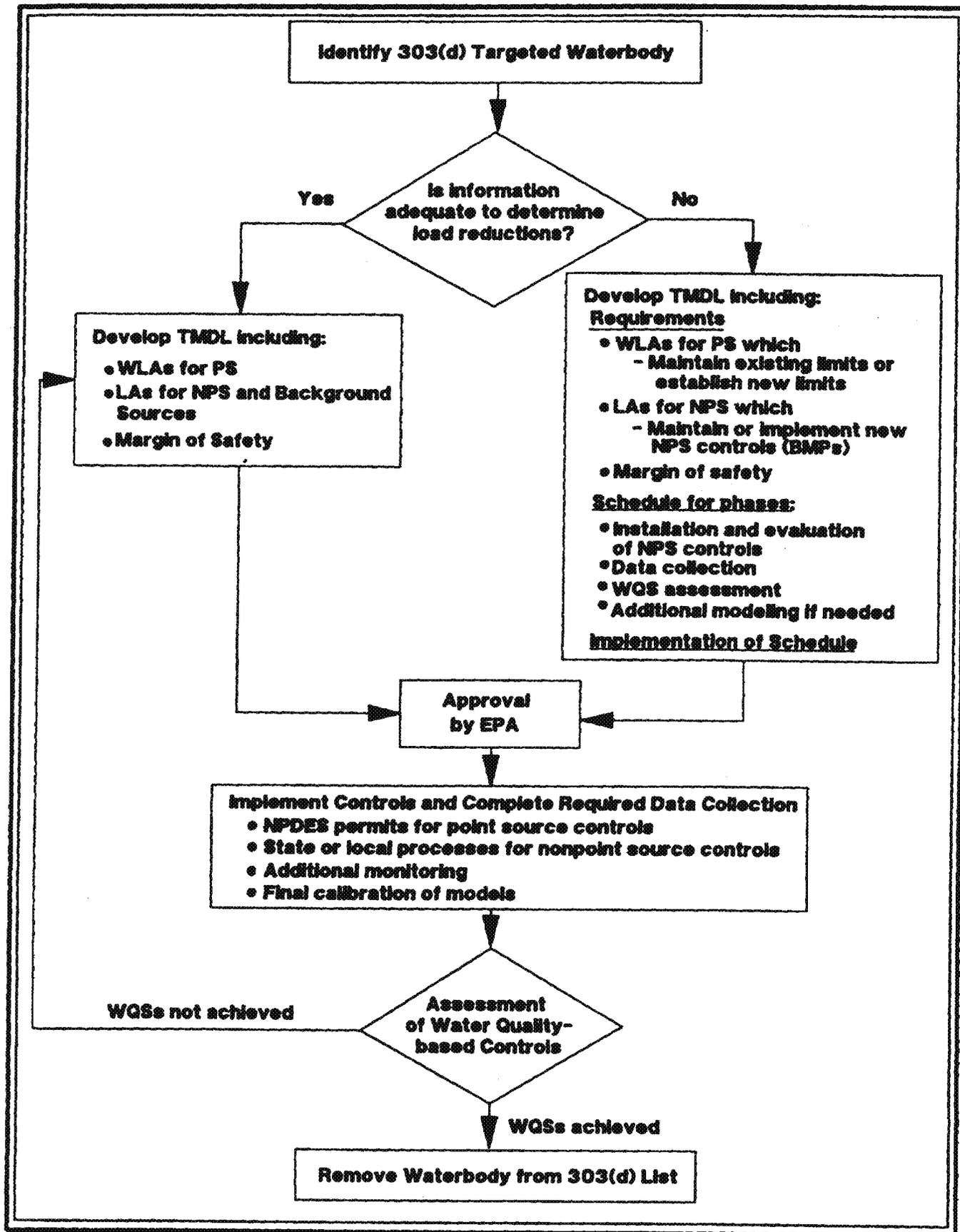
Selection of Approach

Figure 2 illustrates the critical decisions and the appropriate steps in the TMDL process for developing load allocations and implementing and evaluating control actions. In some cases, as illustrated by the left side of the diagram, TMDL development can be straight-forward and relatively simple. In other cases, as depicted by the right side of the diagram, a phased approach may be more appropriate. Regardless of which path is followed, the allocation of loads and establishment of control actions should ensure that all water quality-limited waters will meet their standards.

Once a waterbody is selected for action, an analyst must decide if the available data and information about the sources, fate, and transport of the pollutant to be controlled is adequate. The level of effort and scientific knowledge needed to acquire adequate data and perform meaningful predictive analyses is often a function of the pollutant source, pollutant characteristics, and the geographical scale of the pollution problem. As described in Chapter 2, modeling the fate and transport of conventional pollutants (e.g. biochemical oxygen demand) and point source contributions is better developed than modeling for non-traditional pollution problems. For certain non-traditional problems, if there are not adequate data and predictive tools to characterize and analyze the pollution problem with a known level of uncertainty, a phased approach may be necessary.

The phased approach is required when the TMDL involves both point and nonpoint

Figure 2 Development of TMDLs for Targeted Waterbodies



sources and the point source WLA is based on a LA for which nonpoint source controls need to be implemented. There must be assurances that nonpoint source control measures will achieve expected load reductions in order to allocate a wasteload to a point source with a TMDL that also allocates expected nonpoint source load reductions. In this case, a phased approach is required because the TMDL that is developed has additional requirements that provide these assurances.

Despite the additional requirements of the phased approach, States may actually prefer it because the additional data collected can be used to verify expected load reductions, evaluate effectiveness of control measures, and ultimately determine whether a TMDL needs to be revised.

The Phased Approach

Under the phased approach, the TMDL has LAs and WLAs calculated with margins of safety to meet water quality standards. The allocations are based on estimates which use available data and information, but monitoring for collection of new data is required. The phased approach provides for further pollution reduction without waiting for new data collection and analysis. The margin of safety developed for the TMDL under the phased approach should reflect the adequacy of data and the degree of uncertainty about the relationship between load allocations and receiving water quality.

The TMDL, under the phased approach, includes (1) WLAs that confirm existing limits or would lead to new limits for point sources and (2) LAs that confirm existing controls or include implementing new controls for nonpoint sources. This TMDL requires additional data to be collected to determine if the load reductions required by the TMDL lead to attainment of water quality standards. Data collection may also be required to more accurately determine as-

simulative capacities and pollution allocations.

In addition to the allocations for point and nonpoint sources, a TMDL under the phased approach will establish the schedule or timetable for the installation and evaluation of point and nonpoint source control measures, data collection, the assessment for water quality standards attainment, and, if needed, additional predictive modeling. The scheduling with this approach should be developed to coordinate all the various activities (permitting, monitoring, modeling, etc.) and involve all appropriate local authorities and State and Federal agencies. The schedule for the installation and implementation of control measures and their subsequent evaluations will include descriptions of the types of controls, the expected pollutant reductions, and the time frame within which water quality standards will be met and controls re-evaluated.

Where no monitoring program exists, or where additional assessments are needed, it is necessary for States to design and implement a monitoring plan. The objectives of the monitoring program should include assessment of water quality standards attainment, verification of pollution source allocations, calibration or modification of selected models, calculation of dilutions and pollutant mass balances, and evaluation of point and nonpoint source control effectiveness. In their monitoring programs, States should include a description of data collection methodologies and quality assurance/quality control procedures, a review of current discharger monitoring reports, and be integrated with volunteer and cooperative monitoring programs where possible. If properly designed and implemented, the monitoring program will result in a sufficient data base for assessment of water quality standard attainment and additional predictive modeling if necessary.

Approval of TMDLs by EPA

TMDLs developed for all water quality-limited waters are submitted to EPA for review and approval. States are encouraged to coordinate with EPA prior to formal submission of their TMDLs. Chapter 4 explains EPA and State responsibilities for the review and approval process.

Implementation of the TMDL

After identifying the necessary pollutant load reductions through the development of TMDLs and after approval by EPA, State water quality management plans should be updated and control measures implemented. This section provides a brief review of point and nonpoint source control implementation. Additional guidance is available and is referenced throughout the remainder of this chapter.

NPDES Process for Point Sources

Both technology-based and water quality-based controls are implemented through the National Pollutant Discharge Elimination System (NPDES) permitting process. Permit limits based on TMDLs are called water quality-based limits.

Wasteload allocations establish the level of effluent quality necessary to protect water quality in the receiving water and ensure attainment of water quality standards. Once allowable loadings have been developed through WLAs for specific pollution sources, limits are incorporated into NPDES permits. It is important to consider how the WLA addresses variability in effluent quality. On the one hand, allocations for nutri-

ents or bioaccumulative pollutants could be expressed as the required average effluent quality because the total loading of these pollutants is of concern. On the other hand, an allocation for toxic pollutants should be expressed as a shorter-term requirement because the concentration of these pollutants is typically of more concern than the total loading.⁹

As a result of the 1987 Amendments to the Act, Individual Control Strategies (ICSs) were established under section 304(1)(1) for certain point source discharges of priority toxic pollutants. ICSs consist of NPDES permit limits and schedules for achieving such limits, along with documentation showing that the control measures selected are appropriate and adequate (i.e., fact sheets including information on how water quality-based limits were developed, such as total maximum daily loads and wasteload allocations). Point sources with approved ICSs are to be in compliance with those ICSs as soon as possible or in no case later than three years from the establishment of the ICS (typically by 1992 or 1993).

The Clean Water Act (and corresponding State statutes) authorizes imposition of monitoring and data collection requirements on the owner or operator of a point source discharge. Requirements may include ambient and biological assessments, toxicity reduction evaluations, in-plant monitoring, etc. Needed data collection may be initiated through a direct request under Section 308 if there is a reasonable need for the information for EPA to carry out the objectives of the Clean Water Act. The request must also meet the Paperwork Reduction Act requirements. Information may also be

⁹ The reader is referred to the Permit Writer's Guide to Water Quality-based Permitting for Toxic Pollutants (July, 1987) and the Technical Support Document for Water Quality-based Toxics Control (1985) for additional information on deriving actual permit limits.

Examples of Best Management Practices

AGRICULTURE

Animal waste management
Conservation tillage
Contour farming
Contour strip cropping
Cover crops
Crop rotation
Fertilizer management
Integrated pest management
Livestock exclusion
Range and pasture management
Sod-based rotations
Terraces

CONSTRUCTION

Disturbed area limits
Nonvegetative soil stabilization
Runoff detention/retention
Surface roughening

URBAN

Flood storage
Porous pavements
Runoff detention/retention
Street cleaning

SILVICULTURE

Ground cover maintenance
Limiting disturbed areas
Log removal techniques
Pesticide/herbicide management
Proper handling of haul roads
Removal of debris
Riparian zone management
Road and skid trail management

MINING

Block-cut or haul-back
Underdrains
Water diversion

MULTICATEGORY

Buffer strips
Detention/sedimentation basins
Devices to encourage infiltration
Grassed waterway
Interception/diversion
Material ground cover
Sediment traps
Streamside management zones
Vegetative stabilization/mulching

collected through permit reporting requirements, or an administrative order. These authorities can be used to collect data from point sources when developing or assessing the effectiveness of a TMDL.

Permit requirements for data collection should be established when longer term data (e.g., for several seasons) are needed. The permit should include a statement that the permit can be modified or revoked and reissued if the data indicate an exceedance of State water quality standards.

State or Local Process for Nonpoint Sources

In addition to permits for point sources, nonpoint source controls may be established by implementing Best Management Prac-

tices (BMPs) so that surface water quality objectives are met. These controls should be based on LAs developed using the TMDL process. When establishing permits for point sources in the watershed, the record should show that in the case of any credit for future nonpoint source reductions, (1) there is reasonable assurance that nonpoint source controls will be implemented and maintained or (2) that nonpoint source reductions are demonstrated through an effective monitoring program. Assurances may include the application or utilization of local ordinances, grant conditions, or other enforcement authorities. For example, it may be appropriate to provide that a permit may be reopened for a WLA which requires more stringent limits because attainment of non-

point source load allocation was not demonstrated.

In order to fully address waterbodies that are impaired or threatened by nonpoint source pollution, States should implement their nonpoint source management programs and ensure adoption of control measures (best management practices) by all contributors of nonpoint source pollution in those watersheds. Example BMPs are listed on the following page. State nonpoint source management programs may include, as appropriate, nonregulatory or regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, and demonstration projects.

It is difficult to ensure, a priori, that implementing nonpoint source controls will achieve expected load reductions. Nonpoint source control measures may fail to achieve projected pollution or chemical load reductions due to inadequate selection of BMPs, inadequate design or implementation, or lack of full participation by all contributing sources of nonpoint pollution.¹⁰ States should describe nonpoint source load reductions and establish a procedure for reviewing and revising BMPs in TMDL documentation. The key objective for documenting load reduction goals and review procedures is to establish a rational procedure for site-specific evaluation of waterbodies with significant nonpoint source pollution loads. States should consult additional nonpoint source guidance for assistance in developing

appropriate monitoring and evaluation approaches.^{11 12}

Assessment of the TMDL

Once control measures have been implemented, the impaired waters should be assessed to determine if water quality standards have been attained or are no longer threatened. The monitoring program used to gather the data for this assessment should be designed based on the specific pollution problems or sources. For example, past experience has shown that several years of data are necessary from agricultural nonpoint source watershed projects to detect trends (i.e., improvements) in water quality. As a result, long term monitoring efforts must be consistent over time in order to develop a data base adequate for analysis of control actions.

As shown in Figure 2, a TMDL that allocates loads and wasteloads to meet water quality standards must be established. If the waterbody does achieve the applicable State water quality standards, the waterbody may be removed from the 303(d) list of waters still needing TMDLs. If the water quality standards are not met, the TMDL and allocations of load and wasteloads must be modified. This modification should be based on the additional data and information gathered as required by the phased approach for developing a TMDL, where appropriate, as part of routine monitoring activities, and when assessing the waterbody for water quality standards attainment.

10 USEPA. July, 1987. *Setting Priorities: The Key to Nonpoint Source Control*. OW/OWRS, EPA. Washington, D.C.

11 USEPA. February, 1988. *Draft Nonpoint Source Monitoring and Evaluation Guide*. OW/NPS Branch, Washington, D.C.

12 USEPA. September 19, 1989. *Nonpoint Source Monitoring and Reporting Requirements for Watershed Implementation Grants*. OW/NPS Branch, Washington, D.C.

CHAPTER 4 - EPA AND STATE RESPONSIBILITIES

Effective implementation of water quality-based controls requires an integrated and cooperative partnership between EPA and the States. The main responsibility for water quality management resides with the States in the implementation of water quality standards, the administration of the NPDES program (where the State has received EPA approval to do so), and the management of nonpoint sources of pollution. When the authority to implement nonpoint source control measures is at the local level, inter-agency and intergovernmental coordination is especially important. The State should take the lead in facilitating and encouraging the cooperation of local authorities. EPA is responsible for ensuring that the Clean Water Act requirements are met through the enactment and enforcement of regulations, issuing program guidance, and providing technical assistance. The partnership developed between States and EPA should be tailored to meet individual State needs while also meeting the requirements of the Clean Water Act. This chapter describes specific State and EPA responsibilities in the partnership.

EPA/State Agreements

EPA and the State should agree on the process to develop TMDLs and this process should be consistent with EPA technical guidance documents unless deviation from the guidance is technically justified. An agreement should be written which describes technical and administrative procedures (i.e., how background data are applied, how and which models are to be used, how TMDLs are developed, how loads should be

allocated, etc.). (See Appendix F for a general EPA/State Agreement outline.) This agreement reduces the administrative burden of the EPA review and approval process (see "TMDL Review and Approval," p. 30).

State Responsibilities

Identification of Water Quality-Limited Waters Still Requiring TMDLs

According to section 303(d) of the Clean Water Act and EPA water quality planning and management regulations, States are required to identify waters that do not meet or are not expected to meet water quality standards even after technology-based or other required controls are in place. The waterbodies are considered water quality-limited and require TMDLs.

When a State reports its list of 303(d) waters, it is important that this list contain only those water quality-limited waters that still require TMDLs. Some water quality-limited waters may already have had sufficient controls established for them and currently meet water quality standards. These should not be on the list. In addition, the EPA regulations (40 CFR 130.7(b)) recognize the applicability of other appropriate pollution control requirements that can provide a more stringent level of control than technology-based effluent limitations.

When not listing a water quality-limited water a State must show that the controls specified by 40 CFR 130.7(b) (see p.11) are enforceable, specific to the pollution problems, and stringent enough to meet water

quality standards. If the controls are not yet implemented, a State must provide a schedule for timely implementation.

The waters identified should be reported to EPA in the 305(b) water quality assessment reports due April 1 every even year. If a State prefers, the 303(d) list of waters can be submitted separately at the same time. While initially it may be convenient to build upon the reporting processes described in Chapter 2, the 303(d) list should be updated to reflect the latest monitoring and assessment data available.

To facilitate the reporting of 303(d) waters, the current section 305(b) Waterbody System (WBS), a tool used for reporting 305(b) information, contains fields already designated for this identification. The WBS provides a geographically based framework for entering, documenting, and reporting information on the quality of individual waterbodies as they are defined by each State. The primary function of the WBS is to document water quality assessments and the water quality status of waterbodies, including causes and sources of use impairment. As a convenience to the States, the WBS has been modified and will continue to be updated to include data fields on whether TMDLs are still needed or are in place. The WBS will also provide information to EPA to assist in tracing the development of TMDLs and overall program implementation.

Identification of Causes and Sources of Pollution - When identifying the 303(d) waters, the causes of the impairment also should be identified for each segment listed. The Waterbody System has two separate fields that provide further information on a particular water segment: "nonattainment causes" and "nonattainment sources." The "cause" field consists of a list of constituents or conditions that are causing nonattainment of water quality standards by a waterbody. The Waterbody System's Users Guide (third edition, version 2.0) contains 23 standard causes (see Appendix G) and includes such parameters or categories as pesticides, metals, ammonia, and pathogens. States may

develop their own user-defined codes by specifying additional codes under each standard cause.

Similarly, a field exists in the Waterbody System for identifying the sources of the pollutants or conditions that are listed under causes for the nonattainment of uses in the waterbody. Twelve general source categories are identified (see Appendix G) and include such things as industrial point sources, municipal point sources, combined sewer overflow, agriculture, and silviculture. The User's Guide also identifies 45 subcategories. Again the States may develop their own subcategories to describe causes of impairment of each water segment identified with this system. States should consult with the Guidelines for the Preparation of the 305(b) Report (to be issued every odd numbered year) and the Waterbody System User's Guide for guidance in developing and formatting their information.

Documentation and Rationale for Listing - Along with the list of 303(d) waters submitted to EPA, adequate documentation to support the listing of waters should be submitted. States have a number of readily available sources of data and information to use when compiling their lists (see pages 12 and 13). These sources, listed in Appendix C, should be used by States to develop their lists of 303(d) waters. However, additional information may be required under certain circumstances.

Documentation for listing should also provide a 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 to not use any one of the categories listed in Appendix C. It is not expected that each and every waterbody listed by a State be accompanied by the detailed documentation as described.

Adequate public participation should be a part of the listing process to make sure all water quality-limited waters are identified. This will support the State in defending its list of such waters should the need to do so

arise, since, in its oversight responsibilities, EPA reserves the right to ask for additional information regarding the State's decision to not list particular waterbodies.

Identification and Scheduling of Targeted Waterbodies

Targeted waterbodies scheduled for TMDL development over the next two years are to be identified and reported along with the 303(d) list of waters that are submitted during the 305(b) reporting process. These high priority TMDLs are to be based on State developed priorities that consider the severity of the impact and the uses of the water along with the other considerations described in Chapter 2. State submissions which include the identification of 303(d) targeted waters are subject to review and approval or disapproval by EPA. EPA will expect the States to include public participation in the development of the list of high priority targeted waterbodies. Targeting waterbodies for control action should be a key component of a State's water quality management and planning programs. Waters that are identified in State annual work plans will be compared to the targeted waterbodies and will be considered by EPA during its review and approval of the annual work plans.

TMDL Development

Each State develops TMDLs for its water quality-limited waters. The procedure for TMDL approval by EPA is depicted in Figure 3. States should use EPA's technical support document and WLA technical guidance series (see Appendix A) when developing TMDLs. Alternative approaches can be

used if they are technically defensible and approved by EPA.

For their TMDL submissions, States should include the proposed TMDLs, WLAs, LAs, and the supporting information that the Region will need to evaluate the State's water quality analysis and determine whether to approve or disapprove the submitted TMDLs. Regions and States should reach an agreement on the specific information needed prior to their submission. For a TMDL developed under the phased approach, States should also submit to EPA a description of the controls to be established, the schedule for data collection, establishment of the control measures, assessment for water quality standards attainment, and additional modeling if needed.

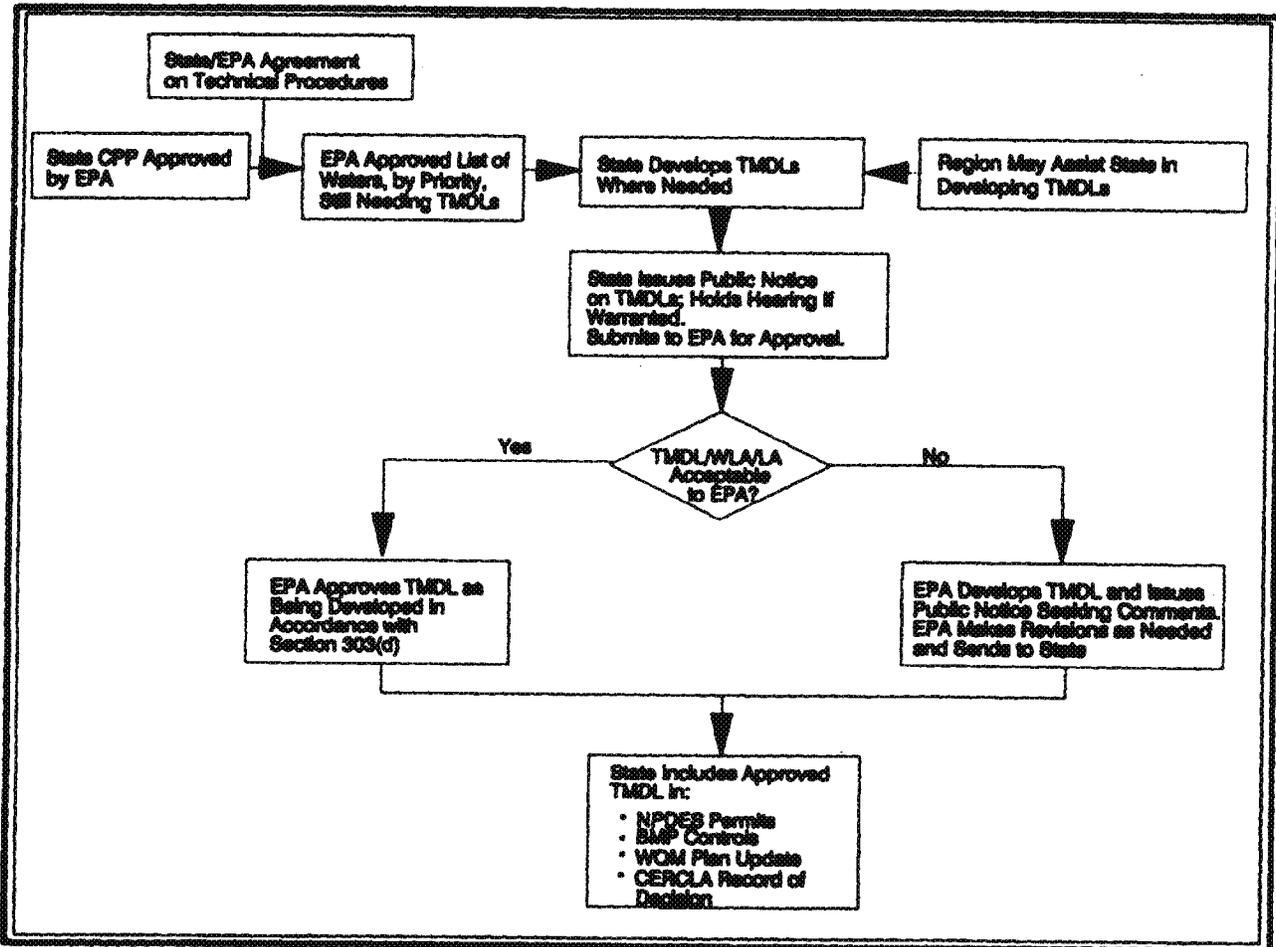
Quality assurance (QA) and quality control (QC) requirements should also be met. Specific technical QA/QC is necessary in the use of environmental data and models. However, when using models, such as wasteload allocation models which involve "real" environmental data as well as parametric and mathematical relationships, model sensitivity studies can help establish the levels of QA/QC required for specific data. For example, the allowable range of uncertainty in the data can be established through model sensitivity studies. This allowable range of uncertainty may indicate, for example, the need for tight limits on precision for a particular pollutant parameter. Further discussion is provided elsewhere.^{13 14 15}

Continuing Planning Process

Each State is required to establish and maintain a continuing planning process (CPP) as described in section 303(e) of the

- 13 USEPA. September, 1980. Guidelines and Specifications for Preparing Quality Assurance Project Plans. QAMS-004/80. Washington, D.C.
- 14 USEPA. December, 1980. Interim Guidelines and Specifications for Preparing Quality Assurance Plans. QAMS-005/80. Washington, D.C.
- 15 USEPA. May, 1984. Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Environmental Monitoring. OWRS QA-1. Washington, D.C.

Figure 3 TMDL Development and Approval Procedure



Clean Water Act. A State's CPP contains, among other items, a description of the process that the State uses to identify waters needing water quality-based controls; a priority ranking of these waters, the process for developing TMDLs, and a description of the process used to receive public review of each TMDL. Descriptions may be as detailed as the Regional office and the State determine is necessary to describe each step of the TMDL development process. This process may be included as part of the EPA/State Agreement for TMDL development.

Water Quality Management Plan

The State incorporates EPA approved and EPA established TMDLs into its Water Quality Management Plan (WQMP). The Water Quality Management and Planning regulation provides that when EPA approves or establishes a TMDL under section 303(d), the TMDL is automatically incorporated into the State's WQMP.¹⁶

Public Notice and Participation

In accordance with the Water Quality Management and Planning regulation and as

16 50 FR 1777, January 11, 1985 and 40 CFR 130.

described in a State's CPP, the TMDLs should be made available for public comment. States and involved local communities should participate in determining which pollution sources should bear the treatment or control burden needed to reach allowable loadings. By involving the local communities in decision making, EPA expects that a higher probability of successful TMDL implementation will result.

In the identification of water quality-limited waterbodies, States need to involve the public as part of their review of all existing and readily available data and information. This is especially true in such cases where a waterbody may be perceived as being at risk due to new dischargers and changes in land use. In such cases a waterbody's water quality may be "threatened" and therefore should be given consideration for listing as a 303(d) water. EPA expects States to include public participation in its development of high priority targeted waterbodies that will proceed with TMDL development within two years following the listing process.

In the development of a TMDL, a State should issue a public notice offering an opportunity for a public hearing pertinent to the TMDL under review. It is recommended that this be done in conjunction with public notices and hearings on NPDES permits, construction of municipal wastewater treatment works, water quality standards revisions, and Water Quality Management Plan updates. Each notice should identify TMDLs as part of the subject matter. The State may wish to proceed to issuance of a final TMDL without a hearing once notice is given and there has been little or no response by the public.

Also, if a State determines that the water quality-based controls may be controversial, the State should involve the EPA Regional office, as well as the public, early in the process and continue to involve them throughout the process.

Reporting

State submission of a list of waters still needing TMDLs and loads established is required by the Clean Water Act and the Water Quality Planning and Management regulations (40 CFR 130.7). These lists should complement EPA/State Agreements and the CPP, and be incorporated into the WQMP. States should submit the 303(d) lists either as part of or at the same time as the biennial section 305(b) reports. As part of this reporting requirement, States are expected to identify those waters targeted for TMDL development in the next two years. Targeted waterbodies are then scheduled for TMDL development through the annual work plan. In addition, the pollutants or conditions causing violations of water quality standards and the point and nonpoint sources of the pollution causing those conditions should be identified for each waterbody on the 303(d) list (see page 28). States should consult the Section 305(b) Waterbody System's Users Guide (August, 1989) to appropriately categorize sources and causes of pollutants.

Other Specific Responsibilities

Other State responsibilities are to

- Ensure that needed environmental data are provided to EPA, including appropriate assessment data; appropriate screening data; and all regulatory data including data needed for approvals of the 303(d) lists and TMDLs, and
- Ensure that appropriate quality assurance/quality control procedures are used for all data used in State decision making and for all data reported to EPA, including data reported by dischargers.

EPA Responsibilities

Review of 303(d) Lists

Section 303(d) and the Water Quality Planning and Management Regulation (40 CFR 130.7(d)) requires EPA to review and approve or disapprove States' lists of water quality-limited waters and the established pollutant loads. The lists are expected to be submitted biennially and will be approved or disapproved based in part on the State's documentation and rationale for developing such lists as described under the *State Responsibilities* section of this chapter.

If, after reviewing the State lists and documentation, EPA is satisfied that the State has identified and appropriately listed all impaired waters and those targeted for action, EPA will then approve the lists and send a letter approving the submittal to the State. During this approval process, EPA may request a State to provide additional information if there is "good cause" to do so. "Good cause" may include, but is not limited to, more recent or accurate data; more accurate water quality modeling; flaws in the original analysis that led to the water being identified pursuant to 40 CFR 130.7; or changes in conditions (e.g., elimination of discharges).

If the EPA disapproves (via a letter of disapproval to the State) a State's list of waters needing new or revised TMDLs and those targeted for action, the Region (working closely with the State) then identifies those waters where new or revised, and targeted TMDLs are necessary.

TMDL Review and Approval

Section 303(d) and the Water Quality Planning and Management regulation (40 CFR 130.7(d)) requires EPA to review all TMDLs for approval or disapproval. EPA may tailor its review to what is reasonable and appropriate. For example, where a State has clearly described its TMDL process in its approved CPP (and EPA/State Agreement), EPA may conduct an in-depth review of a sample of the State's TMDLs to determine how well the State is implementing its approved process and conduct a less detailed review of the remaining TMDLs. This in-depth review of samples of the State submissions, in conjunction with a less detailed review of all other TMDLs submitted to EPA by the State, will provide a reasonable basis for EPA approval or disapproval of individual TMDLs. The in-depth sample review may include TMDLs supporting major construction projects and other major control measures. For those States that do not have an approved process, Regions are expected to conduct in-depth reviews of all TMDLs. The Region's review should also consider how well the States are following applicable technical guidance for establishing TMDLs, WLAs, and LAs.

EPA must, at a minimum, determine whether the State's TMDLs are "established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality."¹⁷ No TMDL will be approved if it will result in a violation of water quality standards.

If the State chooses not to develop the needed TMDLs for appropriate pollutants

17 CWA section 303(d)(1)

on a timely basis or, if the TMDLs are unacceptable to EPA, EPA has a role under the Act to develop the TMDLs in cooperation with the State.¹⁸ This will be done by focusing available EPA resources on the most critical water quality problems.

EPA must either approve or disapprove the State's TMDL within 30 days after submission by the State. Where a TMDL is approved, EPA transmits a letter of such approval. If EPA disapproves a State's submission and the State does not agree to correct the problems, then EPA shall, within 30 days of the disapproval date, establish such TMDLs as necessary to implement the water quality standards. EPA solicits public comment and after considering public comment and making appropriate revisions, EPA transmits the revised TMDL to the State for incorporation in the State's Water Quality Management Plan.¹⁹ EPA prefers to discharge this duty through a cooperative effort with the States.

Program Audits

EPA expects to measure performance on the basis of environmental results and administrative goals by means of program audits. To achieve this performance measurement, EPA will periodically conduct audits of State water quality programs primarily through Regional visits to the States, review of State toxics control programs, and State action plan summaries of EPA's Surface Water Toxics Control Program.²⁰ These program audits will serve to determine where additional training or other assistance may be needed and to determine implementation of program objectives.

Technical Assistance and Training

EPA Headquarters and Regional offices are available to provide technical assistance and advice to the States in developing TMDLs. EPA Headquarters in coordination with the EPA Center for Exposure Assessment Modeling (CEAM) provides for training and assistance on modeling. EPA Headquarters also provides training and technical assistance to users of the Waterbody System (WBS).

Guidance Documents and Reports

EPA Headquarters is responsible for developing associated program guidance, technical support with assistance from EPA research laboratories, and producing the biennial National Water Quality Inventory Report to Congress developed from the State section 305(b) assessment reports.

EPA Headquarters Responsibilities

EPA Headquarters is responsible for making sure the CWA mandates regarding TMDLs are carried out, providing oversight of the Regional offices and the States, developing program policy and guidance, supporting the development of computer software for calculating TMDLs, developing technical guidance documents, and providing technical training and assistance. Other responsibilities of EPA Headquarters are summarized on the next page.

EPA Regional Responsibilities

The EPA Regional offices are responsible for assisting Headquarters in developing policy and guidance, distributing policy and

18 See Scott Decision: *Scott v. Hammond*, 741 F.2d 992(7th Cir. 1984)

19 40 CFR 130.7(d)

20 40 CFR 122, 123, 130; Surface Water Toxics Control Program.

guidance to the States, awarding grants to the States for developing and implementing water quality-based controls, and providing technical assistance to the States. In addition, the Regional offices are responsible for reviewing and approving or disapproving the following: each State's TMDL process, the annual work program, the list of waters

where TMDLs are needed, the list of targeted waters, and specific TMDLs, WLAs, and LAs. The EPA Regional offices are also responsible for reporting on State implementation to Headquarters. Other responsibilities of EPA Regional offices are summarized below.

Other EPA Headquarters Responsibilities

- Prepare guidance and ensure that appropriate technical training and technical assistance is available for monitoring, water quality analysis, and data reporting.
- Perform national assessments and evaluate the national water quality effects of CWA programs.
- Make national data systems more useful for national, regional, and State managers by upgrading and cross-linking the existing systems and developing interactive data retrieval and analysis mechanisms for line managers. Continue support of the River Reach and Industrial Facility Discharge files.
- Ensure that appropriate quality assurance/quality control procedures are used in all national data collection efforts and provide laboratory support for national studies of pollutants requiring special analyses.
- Prepare Headquarters budget requests, and in consultation with the Regions, prepare requests for Regional and State water quality monitoring and analysis programs.
- Peer review major agency program activities involving water monitoring and consult with other program offices on water monitoring activities.

Other EPA Regional Responsibilities

- Ensure that the appropriate regulatory monitoring is performed by the States and dischargers needed for developing and implementing water quality-based controls and identifying needed nonpoint source controls. This includes data required to identify waters needing water quality-based controls, data needed to develop controls, and data needed to assess the effectiveness of controls.
- Provide technical assistance and training to the States on water quality monitoring and analyses. For work involving toxics, provide assistance in both the pollutant specific and the biomonitoring approaches and whole effluent toxicity.
- Ensure that appropriate quality assurance/quality control procedures are used for all Regional and State water quality data and for all data used in Regional decision making including data reported by permittees.
- Perform Regional water quality assessments primarily based on State data, as needed to prepare Environmental Management Reports.
- Ensure that Regional data systems are compatible with and do not unnecessarily duplicate national data systems.

APPENDIX A - RELATIONSHIP TO OTHER GUIDANCE

Monitoring Guidance

The Clean Water Act specifies that States and Interstate Agencies, in cooperation with EPA, establish water quality monitoring systems necessary to review and revise water quality standards, calculate TMDLs, assess compliance with permits, and report on conditions and trends in ambient waters. EPA's current program guidance²¹ discusses the programmatic relationships of monitoring as an information collection tool for many program needs. NPS pollution concerns are discussed in draft guidance along with some means to monitor and evaluate NPSs.²² Revised Monitoring Program Guidance is planned for FY 1991.

Cooperative Monitoring/Citizen Volunteer Monitoring Guidance

Cooperative monitoring involves shared efforts by individuals or groups in assessing water quality conditions. Cooperative arrangements are encouraged by the Clean Water Act as referenced in section 104. Cooperative monitoring projects require careful planning and strong management

controls. Current guidance^{23 24} describes the factors to be considered in designing and implementing cooperative and volunteer monitoring projects so that specific provisions are made for the collection and analysis of scientifically valid water quality data, and so that the State water pollution control agencies have the necessary information for final review and approval of all projects.

Cooperative monitoring projects can serve the same usefulness as other monitoring studies; however, they also provide a mechanism to maximize limited resources. In addition to "tapping" additional resources for monitoring, there are other incentives for States and the regulated community to cooperate, such as having more site-specific data from which to develop site-specific, scientifically-based water quality criteria.

Citizen volunteer monitoring involves identifying sources of pollution, tracking the progress of protection and restoration projects, and/or reporting special events such as fish kills and storm damage. For more information on citizen monitoring programs, contact the EPA Office of Water Regulations

- 21 USEPA. 1985. *Guidance for State Water Monitoring and Wasteload Allocation Programs*. OW/OWRS, EPA 440/4-85-031. Washington, D.C.
- 22 USEPA. 1987. *Draft Nonpoint Source Monitoring and Evaluation Guide*. OW/OWRS, EPA. Washington, D.C.
- 23 USEPA. 1984. *Planning and Managing Cooperative Monitoring Projects*. OW/OWRS, EPA 440/4-84-018. Washington, D.C.
- 24 USEPA. 1990. *Volunteer Water Monitoring: A Guide for State Managers*. OW, EPA 440/4-90-010. Washington, D.C.

and Standards (OWRS), Monitoring Branch at 202/382-7056.

Wasteload Allocation Technical Guidance

Technical guidance manuals prepared by EPA explain how to prepare wasteload allocations (WLAs). These manuals are listed at the right. Those available can be obtained from the OWRS Monitoring Branch at 202/382-7056.

Technical Support Document for Water Quality-based Toxics Control

The Technical Support Document (TSD) for Water Quality-based Toxics Control²⁵ presents recommendations to regulatory authorities when they are faced with the task of controlling the discharge of toxic pollutants to the nation's waters. Included in this document are detailed discussions on EPA's recommended criteria for whole effluent toxicity, a screening analysis methodology for effluent characterization, human health risk assessment, the use of exposure assessments for wasteload allocations, and the development of permit requirements and compliance monitoring. The TSD provides guidance for assessing and regulating the discharge of toxic substances. It supports EPA's initiative to control toxic pollution by involving the application of biological and chemical assessment techniques and proposes solutions to complex and site-specific pollution problems. Information on this document can be obtained from EPA's Water Quality and Industrial Permits Branch at 202/475-9537.

Technical Guidance Manuals for Performing Wasteload Allocations

Book Title

- I. General Guidance
- II. Streams and Rivers
 - Biochemical Oxygen Demand/Dissolved Oxygen
 - Nutrient/Eutrophication
 - Toxic Substances
 - Simplified Analytical Method for Determining NPDES Effluent Limitations for POTWs Discharging into Low-Flow Streams
- III. Estuaries
 - Estuaries and Wasteload Allocation Models
 - Application of Estuarine Waste Load Allocation Models
 - Use of Mixing Zone Models in Estuarine Waste Load Allocations*
 - Critical Review of Estuarine Waste Load Allocation Modeling*
- IV. Lakes and Impoundments
 - Biochemical Oxygen Demand/Dissolved Oxygen
 - Nutrient/Eutrophication
 - Toxic Substances
- V. Technical Support Document for Water Quality-Based Toxics Control
- VI. Design Conditions
 - Design Flow
 - Design Temperature, pH, Hardness, and Alkalinity
- VII. Permit Averaging
- VIII. Screening Manual
 - Biochemical Oxygen Demand/Dissolved Oxygen
 - Toxic Organics
 - Toxic Metals
 - Nutrients/Eutrophication
- IX. Innovative Wasteload Allocations*

* not yet available

25 USEPA. 1985. Technical Support Document for Water Quality-based Toxics Control. OW/OWRS and OWEP, EPA 440/4-85 Washington, D.C. A revised draft (April 23, 1990) is available and will replace the 1985 Guidance once it is finalized.

Permit Writers Guidance

The Permit Writer's Guide to Water Quality-based Permitting For Toxic Pollutants²⁶ provides State and Federal NPDES permit writers and water quality management staff with a reference on water quality-based permit issuance procedures. This guidance presents fundamental concepts and procedures in detail and refers to more advanced toxics control procedures, such as dynamic modeling of complex discharge situations, which may not yet be incorporated into many State programs. The guidance explains aspects of water quality-based toxics control in terms of what a permit writer currently needs to know to issue a water quality-based toxics control NPDES permit.

The NPDES permits program is now focused on control of toxic pollutants and the guidance document is directed at supporting these control efforts. Water quality problems related to conventional pollutants, such as those associated with point source contributions to oxygen depletion, are addressed in other guidance documents.

The Permit Writer's guide addresses three areas of toxic effects: aquatic life, human health, and the bioaccumulation of specific chemicals. Each effect must be dealt with on an individual basis using available data and tools. This guidance also catalogues the principal procedures and tools available.

The guidance supports an integrated toxics control strategy using both whole effluent

toxicity-based assessment procedures and pollutant-specific assessment procedures. Both procedures are needed to enforce State water quality standards.

Nonpoint Source Guidance

Section 319 of the Clean Water Act establishes direction and financial assistance for the implementation of State NPS programs. NPS guidance²⁷ encourages States to develop State Clean Water Strategies for integrating and unifying the States' approach to water quality protection and clean-up. Three steps are identified for this process: comprehensive assessment of impaired or threatened waters, targeted protection of waters, and development of strategic management plans. States are to develop NPS programs which build upon related programs (e.g., Clean Lakes, National Estuaries, Stormwater Permits, Ground Water, Toxics Controls, State Revolving Funds, and Wetlands) and to coordinate their efforts with other federal agencies.

The 1987 amendments to the CWA include provisions to encourage States to accelerate efforts to control nonpoint source pollution. The amendments require States to prepare a Nonpoint Source Assessment Report and a 4-year Management Program. Funds are provided to assist the States in implementing these programs. Information on this guidance can be obtained from EPA's Nonpoint Source Control Branch at 202/382-7085.

26 USEPA. 1987. Permit Writer's Guide to Water Quality-based Permitting for Toxic Pollutants. OW/OWEP, EPA 440/4-87-005. Washington, D.C.

27 USEPA. 1987. Nonpoint Source Guidance. OW/OWRS, EPA. Washington, D.C.

APPENDIX B - SUPPORTING PROGRAMS

EPA Water Quality Criteria and Standards

The water quality standards program, as envisioned in Section 303(c) of the Clean Water Act, is a joint effort between the States and EPA. The States have primary responsibility for setting, reviewing, revising and enforcing water quality standards. EPA develops regulations, policies, and guidance to help States implement the program and oversees States activities to ensure that State adopted standards are consistent with the requirements of the Act and the implementing Water Quality Standards regulation (40 CFR Part 131). EPA has authority to review and approve or disapprove State standards and, where necessary, to promulgate Federal water quality standards.

A water quality standard defines the water quality goals of a waterbody, or portion thereof, by designating the use or uses to be made of the water, by setting criteria necessary to protect the uses, and by preventing degradation of water quality through anti-degradation provisions. States adopt water quality standards to protect public health or welfare, enhance the quality of water, and serve the purposes of the Clean Water Act. "Serve the purposes of the Act" (as defined in Sections 101(a), 101(a)(2), and 303(c) of the Act) means that water quality standards should: 1) include provisions for restoring and maintaining chemical, physical, and biological integrity of State waters, 2) provide, wherever attainable, water quality for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water ("fishable/swimmable"), and 3) con-

sider the use and value of State waters for public water supplies, propagation of fish and wildlife, recreation, agriculture and industrial purposes, and navigation.

In the current Water Quality Standards regulation, section 131.11 encourages States to adopt both numeric and narrative criteria. Criteria protect both short-term (acute) and long-term (chronic) effects. Numeric criteria are important where the cause of toxicity is known or for protection against pollutants with potential human health impacts or bioaccumulation potential. Numeric water quality criteria may also be the best way to address nonpoint source pollution problems. Narrative criteria can be the basis for limiting toxicity in waste discharges where a specific pollutant can be identified as causing or contributing to the toxicity but there are no numeric criteria in the State standards, or where toxicity cannot be traced to a particular pollutant. Whole effluent toxicity (WET) testing is also appropriate for discharges containing multiple pollutants because WET testing provides a method for evaluating synergistic and antagonistic effects on aquatic life. Biological criteria provide a means to measure aquatic community structure and function. EPA considers a combination approach of narrative, numeric, and biological criteria necessary to protect beneficial uses fully from the broad range of point and nonpoint sources of pollution.

In addition, the Clean Water Act in Section 303(c)(2)(B) requires States to adopt numeric criteria for priority toxic pollutants for which EPA has published criteria guid-

ance when the discharge or presence of these pollutants could reasonably be expected to interfere with the designated uses in affected waters. States may adopt criteria with State-wide application or site-specific criteria.

EPA's regulation requires each State to adopt, as part of its water quality standards, an antidegradation policy consistent with 30 CFR 131.12. The regulation also requires each State to have implementation methods for its antidegradation policies, i.e., decision criteria for assessing activities that may impact the integrity of a waterbody. Activities covered by the antidegradation policy and implementation methods include both point and nonpoint sources of pollution. Section 131.12 effectively sets out a three-tiered approach for the protection of water quality. "Tier 1" (40 CFR 131.12 (a)(1)) of antidegradation maintains and protects existing uses and the water quality necessary to protect these uses. "Tier II" (section 131.12(a)(2)) protects the water quality in waters whose quality is better than that necessary to protect "fishable/swimmable" uses of the waterbody. Outstanding national resource waters (ONRWs) are provided the highest level of protection under the antidegradation policy ("Tier III").

States may, at their discretion, adopt policies in their standards affecting the application and implementation of standards. EPA specifically recognizes mixing zones, variances, low flow exemptions, and schedules of compliance for water quality-based permit limits. Guidance on these subjects is available from EPA's Office of Water Regulations and Standards, Criteria and Standards Division.

Section 305(b) -- Water Quality Assessment

Section 305(b)²⁸ establishes a process for reporting information about the quality of the nation's water resources to EPA and Congress. Each State, Territory, and Interstate Commission develops a program to monitor the quality of its surface and ground waters and report the current status of water quality biennially to EPA. This information is compiled into a biennial report to Congress. The 305(b) report allows EPA to:

- Determine the status of water quality.
- Identify water quality problems and trends.
- Evaluate the causes of poor water quality and the relative contributions of pollution sources.
- Report on the activities underway to assess and restore water quality.
- Determine the effectiveness of control programs.
- Ensure that pollution control programs are focused on achieving environmental results in an efficient manner.
- Determine the workload remaining in restoring waters with poor quality and protecting threatened waters.
- Use information from the lists of waters developed under sections 304(l)

28 USEPA. 1989. Guidelines for the Preparation of the 1990 State Water Quality Assessment (section 305(b) Report). OW/OWRS. Washington, D.C.

and 319 and continue to maintain and update the statutorily-required lists of waters identified under sections 303(d) and 314.

For each assessed waterbody, information is provided on the water quality-limited status, use nonattainment causes and sources, cause magnitude, and source magnitude. Much of the information from the 305(b) assessments provide useful information for developing lists of water quality-limited segments asked for in section 303(d).

Section 304(l) -- Impaired Waters

Section 304(l)²⁹ required lists of impaired waters and sources to be submitted to EPA as a "one time" effort. These lists of waters (known as the short, long, and mini lists) provide three types of designations for impaired waters and source impacts. The mini list (section 304(l)(1)(A)(i)) is a list of waters that the State does not expect to achieve numeric water quality standards for priority pollutants (section 307(a)) after technology-based requirements have been met, due to point or nonpoint source pollution. The long list (section 304(l)(1)(A)(ii)) is a comprehensive list of waters that are not meeting the fishable and swimmable goals of the Act whether due to toxicity or other impairments; point or nonpoint sources; or toxic, conventional, or nonconventional pollutants. A waterbody which meets its designated use criteria and does not meet fishable/swimmable criteria would be listed on the section 304(l) long list but not necessarily on the section 303(d) list of waters needing TMDLs. It would be appropriate for a State to use the information on all waters from its long lists and apply these data in developing the section 303(d) list of wa-

ters that still do not meet applicable water quality standards. The short list (section 304(l)(1)(B)) is a list of State waters that are not expected to meet applicable standards after technology-based controls have been met, due entirely or substantially to discharge of toxic pollutants from point sources. A fourth list is the list of point source dischargers of priority toxic pollutants to waters listed under section 304(l).

Section 319 -- Nonpoint Source Program

One key initiative of the 1987 Water Quality Act Amendments to the Clean Water Act was the addition of section 319 which established a national program to control nonpoint source pollution. Under this program, States are asked to assess their NPS pollution problems and submit that assessment to EPA. These assessments include a list of "navigable waters within the State which, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain applicable water quality standards or the goals and requirements of this Act." Other paragraphs of section 319 require the identification of categories and subcategories of NPS pollution which contribute to the identification of impaired waters; descriptions of the procedures for identifying and implementing BMPs; control measures for reducing NPS pollution; and descriptions of State and local programs used to abate NPS pollution. Based upon the assessments, State nonpoint source management programs are prepared and presented to EPA for approval. Once these programs are approved, grant funds are made available for the implementation of the program.

²⁹ USEPA. March, 1988. Final Guidance for Implementation of Requirements under section 304(l) of the Clean Water Act as Amended. OWRS and OWEP. Washington, D.C.

Section 319 assessments identify waters with impairments due primarily to NPSs for which TMDLs (including LAs) may need to be developed to establish protection of water quality. States are encouraged to use these tools where appropriate to achieve or protect beneficial uses of the water.

Section 314 -- Clean Lakes Program

Historically, the Clean Lakes Program has been active in awarding grants for the study and restoration of publicly-owned lakes. Under this program, states are encouraged to develop integrated water quality strategies that include lake and reservoir management, restoration, and protection activities. EPA provides financial assistance as available; however, greater emphasis is now on developing technical support material (e.g., a Lake and Reservoir Restoration Guidance Manual).

Section 320 -- National Estuary Program

Authorized by Congress in 1985, and formally established in 1987 by amendments to the Clean Water Act, the National Estuary Program (NEP) builds upon the lessons of the Chesapeake Bay, Great Lakes, and other earlier programs in a geographic, basin-wide approach to environmental management. The EPA Administrator selects estuaries for NEP participation through State governors' nominations. To be selected estuaries must demonstrate a likelihood of success and evidence of institutional, financial, and political commitment to solve their problems.

Among the environmental problems addressed in the NEP estuaries are the loss of aquatic habitats, toxic contamination of estuarine sediments, increases in nutrient levels, bacterial contamination, and hypoxia. As methods for assessing and successfully managing these estuaries are developed, this national demonstration program aims to

communicate its lessons to the more than 150 estuaries located along our coasts.

For approved estuaries, the Administrator convenes management conferences, a grouping of interested Federal, Regional, State, and local governments, affected industries, scientific and academic institutions, and citizen organizations. Management conferences strive for an open, consensus-building approach to defining program goals and objectives, identifying problems to address, and designing pollution prevention/control and resource management strategies to meet each objective. Management conferences are required to create and begin implementation of a Comprehensive Conservation and Management Plan (CCMP) designed to protect and restore the estuary.

Monitoring Program

Ambient water quality monitoring is a data gathering tool used for almost all water quality assessment. Monitoring programs serve to identify waters needing TMDLs, quantify loads, verify models, and evaluate effectiveness of water quality controls (including BMP effectiveness). Once TMDLs have been established for a given waterbody, follow-up monitoring is recommended to document improvement or lack of improvement. Since the TMDL process is iterative, monitoring data can provide the information for updating and revising current TMDLs. Ambient monitoring is used for setting permit conditions, compliance, and enforcement, and detecting new problems and trends.

Effluent Limitation Guidelines and Standards

EPA develops effluent limitation guidelines and new source performance standards for industrial dischargers. These are uniform technology-based limitations for indus-

trial facilities discharging directly into the nation's waters. EPA also develops pretreatment standards for those facilities which discharge into Publicly Owned Treatment Works (POTWs).

During the effluent guidelines promulgation process, EPA develops a profile of the industry to determine pollutant loadings of untreated wastewater for which effluent limitation guidelines are being developed. Pollutants of concern and technologies for treating them are then identified. EPA then prepares estimates of total investment, operation and maintenance costs of complying with each technology option, and evaluates the regulatory options, both technically and economically, to select a technology as the basis for the guidelines.

Effluent limitations, guidelines, and standards are established for three types of industrial pollutants: conventional, toxic, and nonconventional. Effluent guidelines generally limit the amount of pollutant that can be discharged at an individual facility. The numerical limits in the guidelines are determined using industry-specific production data and the treatability data for the selected technology.

NPDES Permits and Individual Control Strategies

All discrete sources of wastewater must obtain a National Pollutant Discharge Elimination System (NPDES) permit that regulates the facility's discharge of pollutants. The approach to controlling and eliminating water pollution is focused on the pollutants determined to be harmful to receiving wa-

ters and on the sources of such pollutants. Authority for issuing NPDES permits is established under section 402 of the CWA.³⁰

Point sources are generally divided into two types: "industrial" and "municipal." Nationwide, there are approximately 50,000 industrial sources which include commercial and manufacturing facilities. Municipal sources, also known as POTWs, number about 15,700 nationwide. Wastewater from municipal sources results from domestic wastewater discharged to POTWs as well as the "indirect" discharge of industrial wastes to sewers.

Section 304(l)(1)(D) required, at a minimum, the development of individual control strategies (ICs) for point source discharges of priority toxic pollutants to waters identified on the short list. (The short list is composed of State waters for which applicable section 307(a) priority pollutant standards are not expected to be achieved after technology-based controls have been met, due entirely or substantially to point sources.) An ICs consists of NPDES permit limitations and schedules for achieving established limitations, along with other documentation to demonstrate that the controls selected are appropriate and adequate.³¹

Marine and Estuarine Waters

In January 1990, EPA published its National Coastal and Marine Policy, which establishes EPA's goals for coastal and marine protection. They include:

- Recover full use of the nation's shores, beaches, and water.

30 USEPA. 1989. Overview of selected EPA Regulations and Guidance Affecting POTW Management. OW/OMPC, EPA 440/69-89/008. Washington, D.C. (Hotline: 800-424-9346)

31 USEPA. 1987. Permit Writer's Guide to Water Quality-based Permitting for Toxic Pollutants. OW/OWEP, EPA 440/4-87-005. Washington, D.C.

- Restore the nation's shell fisheries and salt-water fisheries.
- Minimize the use of coastal and marine water for waste disposal.
- Improve and expand coastal science.
- Support international efforts to protect coastal and marine resources.

EPA's programs to protect ocean and coastal waters and the Great Lakes from nutrient and toxic pollutants emanating from point and nonpoint sources are implemented under the Clean Water Act and the Marine Protection, Research, and Sanctuaries Act (Ocean Dumping Act).

Marine and estuarine waters are, in many cases, the ultimate sink for pollutants which emanate from upland sources. Estuarine and marine waters are particularly complex and it is often difficult to predict pollutant fate and transport. To address the increased complexity and effect on aquatic life, water quality management efforts must increase accordingly. TMDLs can be a useful tool for management of marine and estuarine waters. Technical guidance is currently being revised to support estuarine modeling.³²

Groundwater

Contaminated ground water discharge to surface water may be a source of contaminants in water quality-limited surface waters. While ground water and surface water are often treated as separate systems, they are in reality highly interdependent components of the hydrologic cycle. Subsurface interactions with surface waters occur in a variety of ways. In several studies, ground water dis-

charge accounted for as much as 90% or more of stream flow in humid regions. Therefore, the potential pollutant contributions from ground water to surface waters should be investigated when developing TMDLs. Additional information is available from the EPA Office of Ground Water Protection.

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or "Superfund" provides broad federal authority to respond directly to releases or threatened releases of hazardous substances. This law also provides for the cleanup of inactive or abandoned hazardous waste sites. Under CERCLA, EPA assesses the nature and extent of contamination at a site, determines the public health and environmental threats posed by a site, analyzes the potential cleanup alternatives, and takes action to clean up the site. In instances where a CERCLA site has impact on a nearby waterbody, the level of cleanup needed to maintain water quality standards of surface waters should have a direct relationship to the TMDL for the affected surface waters. As part of the CERCLA process, all "applicable or relevant and appropriate requirements" of statutes such as the CWA must be followed. Load allocations developed pursuant to section 303(d) may, in appropriate circumstances, be "applicable or relevant and appropriate."

POTWs that discharge CERCLA hazardous substances in effluent at levels that equal or exceed NPDES permit limitations, or for which no specific limitations exist, or in spills or other releases, may be subject to the notification requirements and liability provisions under CERCLA. In addition,

32 USEPA. Technical Guidance Manual for Performing Wasteload Allocations, Book III - Estuaries.

POTWs that disposed of sludge in impoundments or landfills that are Superfund sites may be required to pay for cleanup of those sites. At times, POTWs may be requested to accept wastewaters from Superfund cleanup activities. If discharge of CERCLA wastewaters to a POTW is deemed appropriate, the discharger must ensure compliance with substantive and procedural requirements of the national pretreatment program and all local pretreatment regulations before discharging wastewater to the POTW.

The provisions of CERCLA extend well beyond the regulation of POTW discharges. The most common types of Superfund sites governed by CERCLA include abandoned hazardous waste sites and inactive mines, many of which do not discharge to POTWs.

SARA

The Superfund Amendments and Reauthorization Act (SARA, Hotline 800-

535-0202), which amended CERCLA, also established in Title III a new program to increase the public's knowledge of and access to information on the presence of hazardous chemicals in their communities and releases of these chemicals into the environment. Title III (Community Right to Know Program) requires facilities to notify State and local officials if they have extremely hazardous substances present at their facilities in amounts exceeding certain "threshold planning quantities." If appropriate, the facility must also provide material safety data sheets on hazardous chemicals stored at their facilities, or lists of chemicals for which these data sheets are maintained, and report annually on the inventory of these chemicals used at their facility. The law may also require facilities to submit information each year on the amount of toxic chemicals released by the facilities to all media (air, water, and land), if they fall within Standards Industrial Classification Codes 20 to 39 and meet certain threshold limits.

APPENDIX C - SCREENING CATEGORIES

This list of screening categories is based on categories promulgated as the minimum data set a State should consider when developing their list of impaired waters pursuant to section 304(l) of the Clean Water Act. When developing lists pursuant to this guidance and to meet the requirements of section 303(d), a State should, at a minimum, use these categories to identify their water quality-limited waters. States should also consider additional information, such as TRI data, streamflow information collected by USGS, locally available data, and public comments on proposed 303(d) lists.

1. Waters where fishing or shellfish bans and/or advisories are currently in effect or are anticipated.
2. Waters where there have been repeated fishkills or where abnormalities (cancers, lesions, tumors, etc.) have been observed in fish or other aquatic life during the last ten years.
3. Waters where there are restrictions on water sports or recreational contact.
4. Waters identified by the State in its most recent State section 305(b) report as either "partially achieving" or "not achieving" designated uses.
5. Waters listed under sections 304(l) and 319 of the CWA.
6. Waters identified by the State as priority waterbodies. (State Water Quality Management plans often include priority waterbody lists which are those waters that most need water pollution control decisions to achieve water quality standards or goals.)
7. Waters where ambient data indicate potential or actual exceedances of water quality criteria due to toxic pollutants from an industry classified as a primary industry in Appendix A of 40 CFR Part 122.
8. Waters for which effluent toxicity test results indicate possible or actual exceedances of State water quality standards, including narrative "free from" water quality criteria or EPA water quality criteria where State criteria are not available.
9. Waters with primary industrial major dischargers where dilution analyses indicate exceedances of State narrative or numeric water quality criteria (or EPA water quality criteria where state standards are not available) for toxic pollutants, ammonia, or chlorine. These dilution analyses must be based on estimates of discharge levels derived from effluent guidelines development documents, NPDES permits or permit application data (e.g., Form 2C), Discharge Monitoring Reports (DMRs), or other available information.
10. Waters with POTW dischargers requiring local pretreatment programs where dilution analyses indicate exceedances of State water quality criteria (or EPA water quality criteria where State water quality criteria are not available) for

toxic pollutants, ammonia, or chlorine. These dilution analyses must be based upon data from NPDES permits or permit applications (e.g., Form 2C), Discharge Monitoring Reports (DMRs), or other available information.

11. Waters with facilities not included in the previous two categories such as major POTWs, and industrial minor dischargers where dilution analyses indicate exceedances of numeric or narrative State water quality criteria (or EPA water quality criteria where State water quality criteria are not available) for toxic pollutants, ammonia, or chlorine. These dilution analyses must be based upon estimates of discharge levels derived from effluent guideline development documents, NPDES permits or permit application data, Discharge Monitoring Reports (DMRs), or other available information.
12. Waters classified for uses that will not support the "fishable/swimmable" goals of the Clean Water Act.
13. Waters where ambient toxicity or adverse water quality conditions have been reported by local, State, EPA, or other Federal agencies, the private sector, pub-

lic interest groups, or universities. These organizations and groups should be actively solicited for research they may be conducting or reporting. For example, university researchers, the United States Department of Agriculture, the National Oceanic and Atmospheric Administration, the United States Geological Survey, and the United States Fish and Wildlife Service are good sources of field data and research.

14. Waters identified by the State as impaired in its most recent Clean Lake Assessments conducted under section 314 of the Clean Water Act.
15. Waters identified as impaired by nonpoint sources in America's Clean Water: The States' Nonpoint Source Assessments 1985 (Association of State and Interstate Water Pollution Control Administrators (ASIWPCA)) or waters identified as impaired or threatened in a nonpoint source assessment submitted by the State to EPA under section 319 of the Clean Water Act.
16. Surface waters impaired by pollutants from hazardous waste sites on the National Priority List prepared under section 105(8)(A) of CERCLA.

APPENDIX D - SELECTED TECHNICAL CONSIDERATIONS

Design Conditions

When developing a TMDL, design conditions are those critical conditions that must be specified in order to determine attainment of water quality standards. In specifying conditions in the waterbody, an attempt is made to use a reasonable "worst case" condition. For example, stream analysis often uses a low flow (e.g., 7-day low flow, once in 10-years commonly known as 7Q₁₀ or biologically-based 4-day 3-year flows) high temperature design condition.

In situations where nonpoint source loadings at wet weather flow conditions are more significant than the point source loadings, the use of low flow-related design conditions is inappropriate. Wet weather flow conditions may be appropriate for analysis of nonpoint and intermittent point source discharges such as storm sewers. Other factors such as rainfall intensity and duration, time since previous rainfall, pollutant accumulation rates, and stream flow previous to rainfall should be considered in selecting design conditions for nonpoint source analysis. In some instances (e.g., carcinogenic pollutants), it is appropriate to use the harmonic mean flow to estimate loading capacity.

Often conditions of best management practices may be specified for factors other than physical conditions. For example, assumptions about cropping patterns, logging rates, or grazing practices may be necessary to determine the pollution loading estimates of a waterbody. Design conditions are less standardized for these factors and a reasonable worst case condition often must be developed on a case-by-case basis.

In general, for point sources, continuous discharges present the greatest stress under low flow, dry weather conditions. For pollutants transported in runoff, critical conditions will be rainfall-related, but may occur under a variety of flow conditions. For NPSs or intermittent point sources, generally, high flow, wet weather conditions need to be evaluated. For carcinogenic pollutants, harmonic mean flows may be appropriate. Additional details for selecting design conditions are provided in technical guidance.³³

Mathematical Models

When the analyst is calculating a numerical TMDL, several mathematical models can be used to evaluate alternative pollutant loading scenarios. Models supported by the EPA Center for Exposure and Assessment Modeling (CEAM) are summarized in Ap-

33 USEPA. 1985. Technical Support Document for Water Quality-based Toxics Control. OW/OWEP and OWRS, EPA 440/4-85-032. Washington, D.C. A revised draft (April 23, 1990) is available and will replace the 1985 Guidance when finalized.

pendix E. While it is beyond the scope of this guidance to provide a detailed rationale for model selection, the following briefly presents a discussion on model characteristics and selection.

Model characteristics

Models can be characterized in numerous ways such as by their data requirements, ease of application, etc. This section summarizes models based on four categories: temporal characteristics, spatial characteristics, specific constituents and process simulated, and transport processes.

- **Temporal characteristics** - This includes whether the model is steady-state (inputs and outputs constant over time), time-averaged (for example, tidally-averaged), or dynamic. If the model is dynamic, an appropriate time step needs to be selected. For example, streams may require short time steps (hourly or less) while lakes, which typically have residence times in excess of weeks, can generally be modeled with longer time steps (e.g., daily or more). Similarly, loads from NPS models are often lumped together into event or annual loadings.
- **Spatial characteristics** - This includes the number of dimensions simulated and the degree of spatial resolution. In most stream models, one-dimensional models are used since typically vertical and horizontal gradients are small. For large lakes and estuaries, two- or three-dimensional models may be more appropriate because both vertical and horizontal concentration gradients commonly occur. Segmented or multiple catchment models may be more appropriate for heterogeneous watersheds, whereas,

lumped single-catchment models are more appropriate for homogeneous or less complex situations.

- **Specific constituents and processes simulated** - Models vary in the types of constituents and processes simulated and in the complexity of the formulations used to represent each process. For example, simple DO models include only reaeration and BOD decay while more complex models include other processes such as nitrification, photosynthesis, and algal respiration.
- **Transport processes** - These include advection, dispersion, runoff, interflow, ground water interactions, and the effects of stratification on these processes. Most river models are concerned only with downstream advection and dispersion. Lake and estuary models may include advection and dispersion in one or more dimensions, as well as the effects of density stratification. For toxic modeling, it may be important to use models which account for near-field mixing since many of these pollutants may exert maximum toxicity close to the point of discharge. To incorporate both point and nonpoint sources into TMDLs, it will be important to consider integrated watershed models.

Model selection

A model should be selected based on its adequacy for the intended use, for the specific waterbody, and for the critical conditions occurring at that waterbody. While the selection of an appropriate model should be made by a water quality analyst, it is useful for program managers to be familiar with the decisions which must be made. Four basic

steps have been identified that an analyst would go through to select an appropriate model:

- Identify models applicable to the situation.
- Define the appropriate level of analysis.
- Incorporate practical constraints into the selection criteria.
- Select a specific model.

Identify models applicable to the situation.

An obvious choice for narrowing the selection of an appropriate model is based on the waterbody type (river, estuary, or lake) and the type of analysis (BOD/DO, toxics, etc.) A preliminary list of models may also be screened by selecting models which consider the appropriate constituents and processes that are important for the pollutant being studied.

Define the appropriate type of analysis.

Four types of models are:

- Simple calculator models - These include dilution and mass balance calculations, Streeter-Phelps equations and modifications thereof, analytical solutions to transport equations, steady-state nutrient loading models, regression models, and other simplified modeling procedures that can be performed on desk top calculators.
- Steady state computer models These models compute average spatial profiles of constituents along a river or estuary assuming everything remains constant with time, including loadings, upstream water quality con-

ditions, stream flow rates, meteorological conditions, etc.

- Quasi-dynamic models - These models are a compromise between steady-state models and dynamic models. Quasi-dynamic models assume most of the above factors remain constant, but allow one or more of them to vary with time, for example waste loading rates or stream flow rates. Some of the models hold the waste loading and flow rates constant, but predict effects such as the diurnal variations in dissolved oxygen due to algal photosynthesis and respiration.
- Dynamic models - These models predict temporal and spatial variations in water quality due to varied loadings, flow conditions, meteorological conditions, and internal processes within the watershed or waterbody. Dynamic models are useful for analyzing transient events (e.g., storms and long term seasonal cycles) such as those important in lake eutrophication analyses.

The above model types are listed in order of increasing complexity, data requirements, and cost of application. In addition, lognormal probabilistic models and Monte Carlo simulation techniques have been used to modify some of the above approaches. Probabilistic models use lognormal probability distributions of model inputs to calculate probability distributions of model output. Since this method does not incorporate fate and transport processes, it can only be used to predict the concentration of a substance after complete mixing and before decay or transformation significantly alters the concentration. Monte Carlo simulations combine probabilistic inputs with deterministic models. A fate and transport model is run a large number of times based on ran-

domly selected input values. The output from these models are then rank ordered to produce a frequency distribution. These frequency distributions may then be compared to instream criteria (e.g., criteria maximum concentration (CMC) and criteria continuous concentration (CCC)) to determine if water quality standards are met.

Incorporate practical constraints. In general, the analyst should consider the data requirements for each level of analysis, the availability of historical data, the modeling effort required for each level of analysis, and available resources. Availability of historical data for calibration and verification is one of the key cost savings considerations.

Select a specific model. The analyst should consider model familiarity, technical support and model availability, documentation quality, application ease, and professional recognition and acceptance of a model.

Pollutant Allocation Schemes

Individual States use various load allocation schemes appropriate to their needs and may specify that a particular method be used. Methods of allocating loads have been historically applied to point sources. Application of these methodologies to nonpoint sources has not been well studied to date. Three common methods for allocating loads (equal percent removal, equal effluent concentrations, and a hybrid method) are discussed below. Other methods are detailed in another EPA document.³⁴

The first method is equal percent removal and exists in two forms. In one, the

overall removal efficiencies of the sources are set so they are all equal. In the latter, the incremental removal efficiencies beyond the current discharge are equal. This method is appropriate when the incremental removal efficiencies are relatively small, so that the necessary improvement in water quality can be obtained by minor improvement in treatment at each point source, at little cost.

The second common allocation method specifies equal effluent concentrations. This is similar to equal percent removal if influent concentrations at all sources are approximately the same. However, if one source has substantially higher influent levels, then equal effluent concentrations will require higher overall treatment levels than the equal percent removal approach.

The third commonly used method of allocating loads can be termed a hybrid method. With this method, the criteria for waste reduction may not be the same from one source to the next. One source may be allowed to operate unchanged while another may be required to provide the entire load reduction. More generally, a proportionality rule may be assigned that requires the percent removal to be proportional to the input source loading or flow rate.

Multiple Discharges

TMDLs are particularly critical for waterbodies when the effect from multiple pollution sources overlap. The key concern associated with multiple point or nonpoint pollution sources is the potential for combined impacts. To perform this analysis, it may be necessary to apply near-field mixing models (mixing zone analysis) in addition to

³⁴ USEPA. 1985. Technical Support Document for Water Quality-based Toxics Control. OW/OWEP and OWRS, EPA 440/4-85-032. Washington, D.C. A revised draft (April 23, 1990) is available and will replace the 1985 Guidance when finalized.

a far-field model which considers pollutants from numerous point or nonpoint sources (after the mixing zone). A recommended procedure for evaluating toxicity from multiple discharges is summarized in EPA guidance.³⁵

Allocation Tradeoffs

Where appropriate and technically feasible, certain cost-effective benefits may be gained by making tradeoffs among wasteload allocations. Such a practice is similar to what would be done during the initial considerations of tradeoffs of loads between point and nonpoint sources. In the case of watershed or estuary management, this may be particularly useful to achieve pollution reduction in the most cost-effective manner possible.

The incentive for trading load allocations is to achieve the required level of control by choosing to control one pollutant source over another. Technological feasibility, economic issues, and regulatory authority are all factors to consider when trading allocations. For example, to reduce nutrient loads to a receiving water, nonpoint source controls that can be adequately maintained and enforced, may be much more cost effective than increasing the level of control on a point source discharger.

Pollutant trades are most likely to occur between point and nonpoint sources. However, where effluents from different point source dischargers are comparable, trades may be acceptable so long as water quality standards (including antidegradation regulations and policies) and minimum applicable technology-based controls are met. Simi-

larly, tradeoffs between nonpoint sources are also acceptable.

The Dillon Reservoir (west of Denver, Colorado) is an example of point and nonpoint source phosphorus load tradeoffs. In this example, the cost associated with point source reduction was \$1.5 million per year, whereas the cost associated with NPS controls was \$0.2 to \$1.0 million per year. Because of this cost differential, tradeoffs allowed publicly-owned treatment works to achieve reductions in phosphorus loads to the Dillon Reservoir by controlling NPSs rather than expanding the sewage treatment system.

Persistent and/or Highly Bioaccumulative Toxic Pollutants

Persistent and/or bioaccumulative toxic pollutants require special attention during analysis of toxicity and TMDL development. The primary concern is that toxic pollutants that enter a waterbody at levels that are non-toxic in the water column may accumulate in sediment or aquatic life. These pollutants may then adversely affect aquatic/wildlife or pose a risk to humans by exposure to hazardous chemicals through consumption of contaminated fish or shellfish. Chemicals that bioaccumulate at high rates include some metals, organic compounds, and organometallic compounds. Current technical guidance for wasteload allocation (see Appendix A) summarize a number of models which are appropriate for modeling the fate and transport of toxics in streams/rivers, lakes, and estuaries. Additional details for assessing and controlling risk have been addressed in technical support documentation.

35 USEPA. 1985. Technical Support Document for Water Quality-based Toxics Control. OW/OWEP and OWRS, EPA 440/4-85-032. Washington, D.C. A revised draft (April 23, 1990) is available and will replace the 1985 Guidance when finalized.

Use of Two-number Criteria

Because of inherent variation in effluent and receiving water flows and pollutant concentrations, specifying a concentration that must not be exceeded at any time or place may not be appropriate for the protection of aquatic life. The format usually selected for expressing water quality criteria to protect aquatic life consists of recommendations concerning concentration magnitudes, duration of averaging periods, and average frequencies of allowed excursions. Use of this magnitude-duration-frequency format allows water quality criteria for aquatic life to be adequately protective without being as overprotective as if criteria were expressed using a simpler format. In many cases, these considerations are evaluated during the standards setting process and TMDLs are used to develop controls that result in attainment of applicable water quality standards.

Duration of exposure considers the amount of time organisms will be exposed to toxicants. It is expressed as that period of time over which the instream concentration is averaged for comparison with criteria concentrations. Frequency is defined as how often exposures that exceed the criteria can occur during a given period of time (e.g., once every three years) without unacceptably affecting the community. To account for acute toxic effects, States may adopt acute criteria expressed as the criteria maximum concentration (CMC) occurring in a one-hour averaging period. Similarly, chronic criteria expressed as the criteria continuous concentration (CCC) should be developed as toxicant concentrations which should not be exceeded over longer periods of time. For the purposes of modeling, the ambient concentration should not exceed the CMC more than once every three years. (If the biological community is under stress because of spills, multiple dischargers, or has a low recovery potential, or if a local species

is very important, the frequency should be decreased.)

Although these criteria are mostly used for application to low flow conditions, the toxicological basis for the criteria is equally valid for high flow conditions. It is important for States to protect designated water uses during all flow conditions; therefore, the two-number criteria should be used for all flow conditions unless separate guidance for adopting wet weather criteria is available. However, States should apply duration and frequency parameters to account for the high flow, intermittent nature of nonpoint source loadings.

Sediment Issues

The problems associated with clean and contaminated sediment are not the same. Clean sediment can impair fish reproduction by silting-up spawning areas, and can increase turbidity. Draft (clean) sediment criteria have been developed in Idaho that include turbidity, inter-gravel dissolved oxygen, and cobble embeddedness. The criteria developed may be most appropriate for salmonid streams, but the framework may have wide application. The major concerns regarding contaminated sediment are pollutant releases to the water column, bioaccumulation, and biomagnification. Sediment criteria being developed by EPA have centered on evaluating and developing an understanding of the principal factors that influence the sediment/contaminant interactions with the water column (Equilibrium Partitioning Approach). (The Science Advisory Board will be reviewing methods for establishing sediment criteria for metal contaminants and procedures for establishing standardized bioassays in 1991.) Through such an understanding, exposure estimates of benthic and other organisms can be made. Chronic water quality criteria, or possibly other toxicological endpoints, can then be used to predict potential biological effects.

In some cases, sediment criteria alone would be sufficient to identify and to establish clean up levels for contaminated sediments. In other cases, the sediment criteria should be supplemented with biological or other types of analysis before clean-up deci-

sions can be made. Additionally, ground water inputs through sediments should be distinguished from inputs from the sediment alone, so that proper control measures are implemented.

APPENDIX E - MATHEMATICAL MODEL SUPPORT

The Center for Exposure Assessment Modeling (CEAM) was established in July, 1987 to meet the water quality and exposure modeling needs of States and EPA program and Regional offices. CEAM provides exposure assessment technology, training, and consultation for analysts and decisions-makers operating under various legislative mandates, including the Clean Water Act.

With support and resources from the Monitoring Branch in the Assessment and Watershed Protection Division, Office of Water Regulations and Standards, CEAM maintains a distribution center for water quality models and databases for the user community. Users are kept up to date through user group meetings, a newsletter, and an electronic bulletin board. For the major wasteload allocations models, CEAM offers 2- to 5-day training courses at EPA Headquarters, Regional sites, and the Athens Environmental Research Laboratory facility. Longer-term "on-the-job" training at CEAM for individuals is also available. Technical assistance and review are provided by CEAM scientists and engineers, as well as by affiliated academics and consultants. Exposure calculations and assessments for especially difficult or unusual discharge situations can be arranged as resources allow.

The center currently distributes 21 simulation models and databases. These can be applied to urban runoff (SWMM4, HSPF9), leaching and runoff from soils (PRZM, HSPF9), transport through soil and ground water (MULTIMED, RUSTIC), conventional pollution of streams (QUAL2E, HSPF9, WASP4), toxic pollution of streams

(HSPF9, WASP4, EXAMS2, DYNTOX), toxic pollution of lakes and estuaries (WASP4, EXAMS2), conventional pollution of lakes and estuaries (WASP4), near-field mixing and dilution in rivers, lakes, estuaries, and oceans (CORMIX1), cohesive sediment transport (SED2D-V), river and tidal hydrodynamics (DYNHYD5, RIVMOD, HYDRO2D-V, HYDRO3D), geochemical equilibrium (MINTEQA3), and aquatic food chain bioaccumulation (FGETS). Software and databases distributed to aid in data analysis include ANNIE-IDE, DBAPE, and the CLC Database. Currently available models are summarized below. Those with no version number are available as test code, and will be routinely distributed when fully tested.

Table E-1 CEAM Supported Models

<u>Model Name</u>	<u>Version No.</u>
DYNTOX	1.0
EXAMSII	2.94
HSPF	9.01
MINTEQA3/PRODEFA3	3.00
PRZM	1.00
QUAL2E-UNCAS	3.11
SWMM	3.3
WASP4/TOXI/EUTRO	4.22
DYNHYD5	5.02
GCSOLAR	1.10
FGETS	1.00
CORMIX1	1.00
ANNIE-IDE	1.11
DBAPE	1.05
CLC Database	2.00
RUSTIC	-
MULTIMED	-
HYDRO2D-V	-
SED2D-V	-
HYDRO3D	-
RIVMOD	-

CEAM operates an Electronic Bulletin Board System (BBS) to meet the increasing demand for supported exposure assessment models. It allows efficient communication between users with modem-equipped computers and CEAM support staff as well as immediate acquisition of models by those under extreme time pressure. The services presently offered are: 1) downloading of CEAM supported models, 2) uploading of user input data sets for staff review and problem solving, 3) a bulletin area listing current CEAM activities and events, such as training courses, helpful hints about the models, and

model documentation, and 4) a message area for discussion of computer modeling problems and enhancements. To access the CEAM BBS, a user must call 404/546-3403 or FTS 250-3402 and follow the interactive prompts. The communications parameters are 9600/2400/1200 baud, no parity, 8 data bits, and 1 stop bit.

Information about obtaining the models may be obtained by writing the Center for Exposure Assessment Modeling, U.S. EPA, College Station Road, Athens, GA 30613, or by calling 404-546-3549.

APPENDIX F - GENERAL EPA/STATE AGREEMENT OUTLINE FOR DEVELOPMENT OF TMDLs

Since conditions, procedures, and methodologies may vary between EPA Regions and their States, a general outline of an example agreement is provided. This outline can be used in conjunction with the referenced technical guidance documents to prepare EPA/State Agreements.

- I. General**
 - A. Purpose, Scope, and Authority**
 - B. Statement of Policy**

- II. Water Quality Standards Considerations**
 - A. General**
 - B. Type of Stream Classifications**

- III. Allocation Procedures and Policies**
 - A. Basic Approach for Establishing Boundaries for TMDL Development**
 - B. Determination of TMDL, WLA, and LA Using Water Quality Models**
 - C. Determination of TMDL, WLA, and LA Using Other Analytical Tools**
 - D. Special Case Policies**

- IV. Public Participation Process**

- V. Approval of TMDL, WLA, and LA**

- VI. Incorporation of Allocations into NPDES Permits**
 - A. General**
 - B. Priority Considerations**

- Appendix. State Continuing Planning Process (CPP)**

APPENDIX G - CAUSES AND SOURCES OF POLLUTION

Causes and Sources: Section 305(b) Waterbody System User's Guide, Third Edition (Version 2.0), August 1989, USEPA, Office of Water, Assessment and Watershed Protection Division, pages A-27 through A-31.

Causes

Causes are the pollutants or conditions that are causing or expected to cause exceedances of water quality standards. One or more of the following categories should be used to identify causes of impairment:

- unknown toxicity
- pesticides
- priority organics
- nonpriority organics
- metals
- ammonia
- chlorine
- other organics
- nutrients
- pH
- siltation
- filling and draining
- organic enrichment/DO
- salinity/TDS/chlorides
- thermal modifications
- flow alterations
- other habitat alterations
- pathogens
- radiation
- oil and grease
- taste and odor
- suspended solids
- noxious aquatic plants
- cause unknown

Sources

Sources are the point and nonpoint sources of the pollution categories that are listed as causes identified above. One or more of the following categories should be used to identify sources of impairment:

- source unknown
- industrial point sources
- combined sewer overflow
- silviculture
- urban runoff/storm sewers
- land disposal
- habitat modification
- municipal point sources
- agriculture
- construction
- resource extraction
- hydromodification

Other categories:

- atmospheric deposition
- highway maintenance/runoff
- in-place contaminants
- recreational activities
- salt storage sites
- storage tank leaks
- spills
- natural
- upstream impoundments

LIST OF ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirements
AT	Advanced Treatment
BAT	Best Available Technology
BCT	Best Conventional Technology
BMP	Best Management Practice
BOD ₅	5-day Biochemical Oxygen Demand
BPJ	Best Professional Judgement
BPT	Best Practicable Control Technology
CCC	Criteria Continuous Concentration
CEAM/BBS	Center for Exposure Assessment Modeling/Electronic Bulletin Board System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CLP	Clean Lakes Program
CMC	Criteria Maximum Concentration
CPP	Continuing Planning Process
CSO	Combined Sewer Overflow
CWA	Clean Water Act
DO	Dissolved Oxygen
EPA	Environmental Protection Agency
FR	Federal Register
ICS	Individual Control Strategy
LA	Load Allocation
LC	Loading Capacity
MOS	Margin of Safety
NCMP	National Coastal and Marine Policy
NEP	National Estuary Program
NPDES	National Pollutant Discharge Elimination System
NPS	Nonpoint Source
POTW	Publicly Owned Treatment Works
QA/QC	Quality Assurance/Quality Control
SARA	Superfund Amendments and Reauthorization Act
TMDL	Total Maximum Daily Load
TRE	Toxic Reduction Evaluation
TRI	Toxic Release Inventory
TSD	Technical Support Document
WBS	Waterbody System
WLA	Wasteload Allocation
WQMP	Water Quality Management Plan
WWTP	Wastewater Treatment Plant

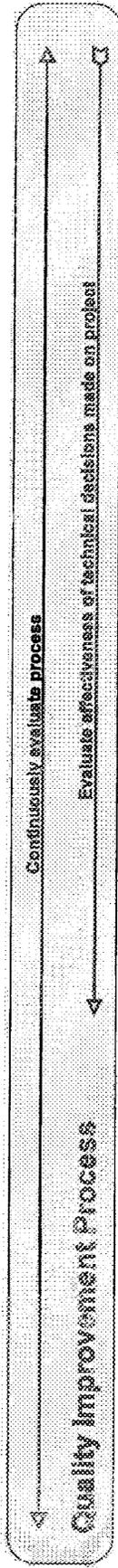
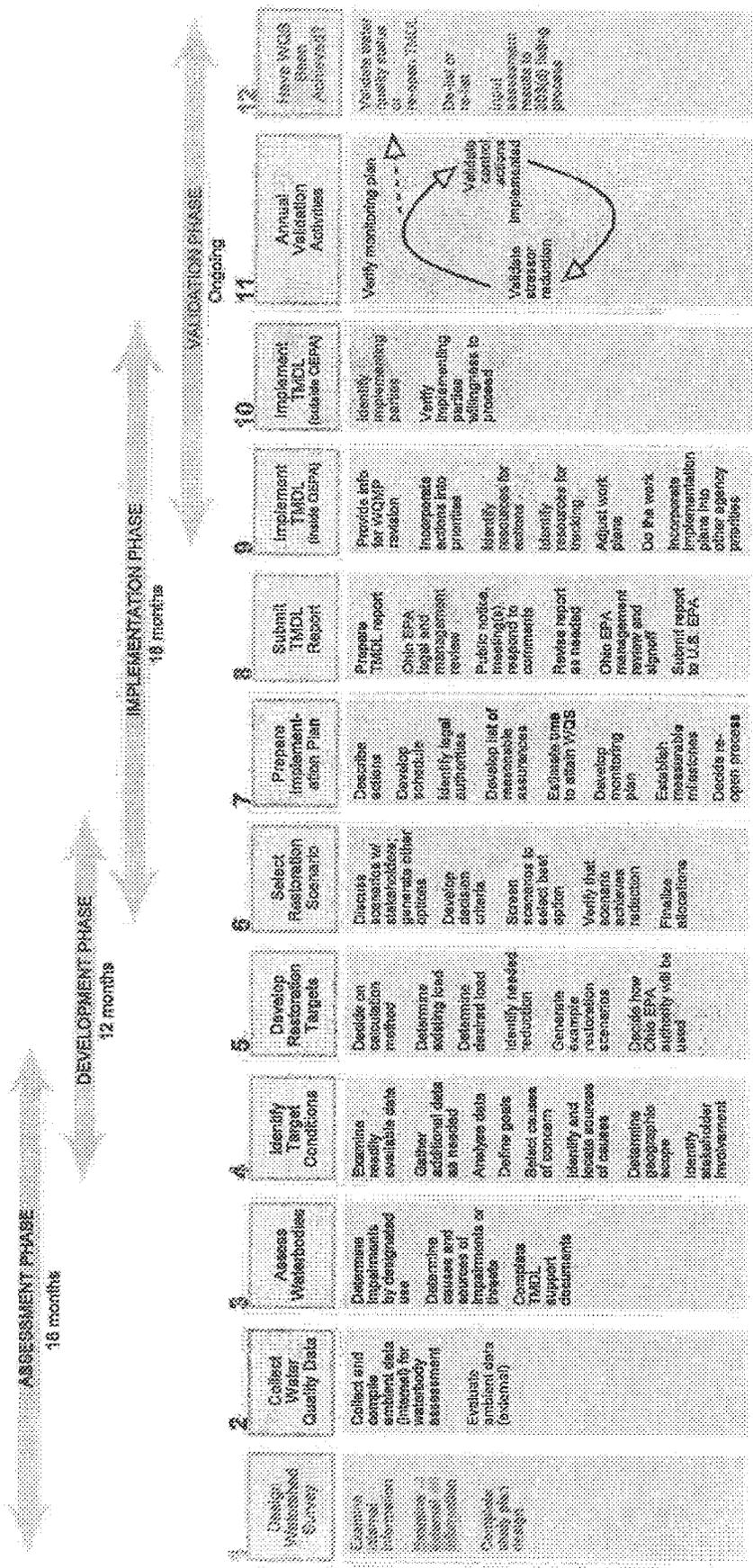
***SELECTED OFFICES, DIVISIONS, BRANCHES,
AND SECTIONS WITHIN EPA***

		<u>General Contact Phone Number</u>
OW	Office of Water	382-5700
OWRS	Office of Water Regulations and Standards	382-5400
AED	Analysis and Evaluation Division	382-5389
ITD	Industrial Technology Division	382-7120
CSD	Criteria and Standards Division	382-7301
AWPD	Assessment and Watershed Protection Division	382-7040
	Monitoring Branch	382-7056
	Monitoring Management Section (TMDLs/WLAs)	
	Monitoring Analysis Section	
	Water Quality Analysis Branch	382-7046
	Information Services Section	
	Special Studies Section	
	Exposure Assessment Section	
	Nonpoint Source Control Branch	382-7085
	Clean Lakes Section	
	Nonpoint Source Control Section (BMPs/LAs)	
OMEP	Office of Marine and Estuarine Protection	382-7166
OWEP	Office of Water Enforcement and Permits	475-8488
OMPC	Office of Municipal Pollution Control	382-5850
ODW	Office of Drinking Water	382-5543
OGWP	Office of Ground Water Protection	382-7077
OWP	Office of Wetlands Protection	475-7791

All area codes are 202.

Overview of the TMDL Project Process

Numbers on chart correspond to detailed task lists contained in Appendix B





Water: Total Maximum Daily Loads (303d)

You are here: [Water Laws & Regulations](#) » [Laws & Executive Orders](#) » [Clean Water Act](#) » [Total Maximum Daily Loads \(303d\)](#) » [Guidelines for Reviewing TMDLs Under Existing Regulations Issued in 1992](#)

Guidelines for Reviewing TMDLs Under Existing Regulations Issued in 1992

Section 303(d) of the Clean Water Act (CWA) and EPA's implementing regulations at 40 C.F.R. Part 130 describe the statutory and regulatory requirements for approvable TMDLs. Additional information is generally necessary for EPA to determine if a submitted TMDL fulfills the legal requirements for approval under Section 303(d) and EPA regulations, and should be included in the submittal package. Use of the verb "must" below denotes information that is required to be submitted because it relates to elements of the TMDL required by the CWA and by regulation. Use of the term "should" below denotes information that is generally necessary for EPA to determine if a submitted TMDL is approvable. These TMDL review guidelines are not themselves regulations. They are an attempt to summarize and provide guidance regarding currently effective statutory and regulatory requirements relating to TMDLs. Any differences between these guidelines and EPA's TMDL regulations should be resolved in favor of the regulations themselves. A one-page checklist of the review elements may be found on the last page of this document.

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

The TMDL submittal should identify the waterbody as it appears on the State's/Tribe's 303(d) list. The waterbody should be identified/georeferenced using the National Hydrography Dataset (NHD), and the TMDL should clearly identify the pollutant for which the TMDL is being established. In addition, the TMDL should identify the priority ranking of the waterbody and specify the link between the pollutant of concern and the water quality standard (see section 2 below).

The TMDL submittal should include an identification of the point and nonpoint sources of the pollutant of concern, including location of the source(s) and the quantity of the loading, e.g., lbs/per day. The TMDL should provide the identification numbers of the NPDES permits within the waterbody. Where it is possible to separate natural background from nonpoint sources, the TMDL should include a description of the natural background. This information is necessary for EPA's review of the load and wasteload allocations, which are required by regulation.

The TMDL submittal should also contain a description of any important assumptions made in developing the TMDL, such as:

- (1) the spatial extent of the watershed in which the impaired waterbody is located;
- (2) the assumed distribution of land use in the watershed (e.g., urban, forested, agriculture);
- (3) population characteristics, wildlife resources, and other relevant information affecting the characterization of the pollutant of concern and its allocation to sources;
- (4) present and future growth trends, if taken into consideration in preparing the TMDL (e.g., the TMDL could include the design capacity of a wastewater treatment facility); and
- (5) an explanation and analytical basis for expressing the TMDL through surrogate measures, if applicable. Surrogate measures are parameters such as percent fines and turbidity for sediment impairments; chlorophyll a and phosphorus loadings for excess algae; length of riparian buffer; or number of acres of best management practices.

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

The TMDL submittal must include a description of the applicable State/Tribal water quality standard, including the designated use(s) of the waterbody, the applicable numeric or narrative water quality criterion, and the antidegradation policy. (40 C.F.R. §130.7(c)(1)). EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation.

The TMDL submittal must identify a numeric water quality target(s) - a quantitative value used to measure whether or not the applicable water quality standard is attained. Generally, the pollutant of concern and the numeric water quality target are, respectively, the chemical causing the impairment and the numeric criteria for that chemical (e.g., chromium) contained in the water quality standard. The TMDL expresses the relationship between any necessary reduction of the pollutant of concern and the attainment of the numeric water quality target. Occasionally, the pollutant of concern is different from the pollutant that is the subject of the numeric water quality target (e.g., when the pollutant of concern is phosphorus and the numeric water quality target is expressed as Dissolved Oxygen (DO) criteria). In such cases, the TMDL submittal should explain the linkage between the pollutant of concern and the chosen numeric water quality target.

3. Loading Capacity - Linking Water Quality and Pollutant Sources

A TMDL must identify the loading capacity of a waterbody for the applicable pollutant. EPA regulations define loading capacity as the greatest amount of a pollutant that a water can receive without violating water quality standards (40 C.F.R. §130.2(f)).

The pollutant loadings may be expressed as either mass-per-time, toxicity or other appropriate measure (40 C.F.R. §130.2(f)). If the TMDL is expressed in terms other than a daily load, e.g., an annual load, the submittal should explain why it is appropriate to express the TMDL in the unit of measurement chosen. The TMDL submittal should describe the method used to establish the cause-and-effect relationship between the numeric target and the identified pollutant sources. In many instances, this method will be a water quality model.

The TMDL submittal should contain documentation supporting the TMDL analysis, including the basis for any assumptions; a discussion of strengths and weaknesses in the analytical process; and results from any water quality modeling. EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation.

TMDLs must take into account critical conditions for stream flow, loading, and water quality parameters as part of the analysis of loading capacity. (40 C.F.R. §130.7(c)(1)). TMDLs should define applicable critical conditions and describe their approach to estimating both point and nonpoint source loadings under such critical conditions. In particular, the TMDL should discuss the approach used to compute and allocate nonpoint source loadings, e.g., meteorological conditions and land use distribution.

4. Load Allocations (LAs)

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

5. Wasteload Allocations (WLAs)

EPA regulations require that a TMDL include WLAs, which identify the portion of the loading capacity allocated to individual existing and future point source(s) (40 C.F.R. §130.2(h), 40 C.F.R. §130.2(i)). In some cases, WLAs may cover more than one discharger, e.g., if the source is contained within a general permit.

The individual WLAs may take the form of uniform percentage reductions or individual mass based limitations for dischargers where it can be shown that this solution meets WQSs and does not result in localized impairments. These individual WLAs may be adjusted during the NPDES permitting process. If the WLAs are adjusted, the individual effluent limits for each permit issued to a discharger on the impaired water must be consistent with the assumptions and requirements of the adjusted WLAs in the TMDL. If the WLAs are not adjusted, effluent limits contained in the permit must be consistent with the individual WLAs specified in the TMDL. If a draft permit provides for a higher load for a discharger than the corresponding individual WLA in the TMDL, the State/Tribe must demonstrate that the total WLA in the TMDL will be achieved through reductions in the remaining individual WLAs and that localized impairments will not result. All permittees should be notified of any deviations from the initial individual WLAs contained in the TMDL.

EPA does not require the establishment of a new TMDL to reflect these revised allocations as long as the total WLA, as expressed in the TMDL, remains the same or decreases, and there is no reallocation between the total WLA and the total LA.

6. Margin of Safety (MOS)

The statute and regulations require that a TMDL include a margin of safety (MOS) to account for any lack of knowledge concerning the relationship between load and wasteload allocations and water quality (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)). EPA's 1991 TMDL Guidance explains that the MOS may be implicit, i.e., incorporated into the TMDL through conservative assumptions in the analysis, or explicit, i.e., expressed in the TMDL as loadings set aside for the MOS. If the MOS is implicit, the conservative assumptions in the analysis that account for the MOS must be described. If the MOS is explicit, the loading set aside for the MOS must be identified.

7. Seasonal Variation

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

8. Reasonable Assurances

When a TMDL is developed for waters impaired by point sources only, the issuance of a National Pollutant Discharge Elimination System (NPDES) permit(s) provides the reasonable assurance that the wasteload allocations contained in the TMDL will be achieved. This is because 40 C.F.R. 122.44(d)(1)(vi)(B) requires that effluent limits in permits be consistent with "the assumptions and requirements of any available wasteload allocation" in an approved TMDL.

When a TMDL is developed for waters impaired by both point and nonpoint sources, and the WLA is based on an assumption that nonpoint source load reductions will occur, EPA's 1991 TMDL Guidance states that the TMDL should provide reasonable assurances that nonpoint source control measures will achieve expected load reductions in order for the TMDL to be approvable. This information is necessary for EPA to determine that the TMDL, including the load and wasteload allocations, has been established at a level necessary to implement water quality standards.

EPA's August 1997 TMDL Guidance also directs Regions to work with States to achieve TMDL load allocations in waters impaired only by nonpoint sources. However, EPA cannot disapprove a TMDL for nonpoint source-only impaired waters, which do not have a demonstration of reasonable assurance that LAs will be achieved, because such a showing is not required by current regulations.

9. Monitoring Plan to Track TMDL Effectiveness

EPA's 1991 document, Guidance for Water Quality-Based Decisions: The TMDL Process (EPA 440/4-91-001), recommends a monitoring plan to track the effectiveness of a TMDL, particularly when a TMDL involves both point and nonpoint sources, and the WLA is based on an assumption that nonpoint source load reductions will occur. Such a TMDL should provide assurances that nonpoint source controls will achieve expected load reductions and, such TMDL should include a monitoring plan that describes the additional data to be collected to determine if the load reductions provided for in the TMDL are occurring and leading to attainment of water quality standards.

10. Implementation

EPA policy encourages Regions to work in partnership with States/Tribes to achieve nonpoint source load allocations established for 303(d)-listed waters impaired by nonpoint sources. Regions may assist States/Tribes in developing implementation plans that include reasonable assurances that nonpoint source LAs established in TMDLs for waters impaired solely or primarily by nonpoint sources will in fact be achieved. In addition, EPA policy recognizes that other relevant watershed management processes may be used in the TMDL process. EPA is not required to and does not approve TMDL implementation plans.

11. Public Participation

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

Provision of inadequate public participation may be a basis for disapproving a TMDL. If EPA determines that a State/Tribe has not provided adequate public participation, EPA may defer its approval action until adequate public participation has been provided for, either by the State/Tribe or by EPA.

12. Submittal Letter

A submittal letter should be included with the TMDL submittal, and should specify whether the TMDL is being submitted for a technical review or final review and approval. Each final TMDL submitted to EPA should be accompanied by a submittal letter that explicitly states that the submittal is a final TMDL submitted under Section 303(d) of the Clean Water Act for EPA review and approval. This clearly establishes the State's/Tribe's intent to submit, and EPA's duty to review, the TMDL under the statute. The submittal letter, whether for technical review or final review and approval, should contain such identifying information as the name and location of the waterbody, and the pollutant(s) of concern.

13. Administrative Record

While not a necessary part of the submittal to EPA, the State/Tribe should also prepare an administrative record containing documents that support the establishment of and calculations/allocations in the TMDL. Components of the record should include all materials relied upon by the State/Tribe to develop and support the calculations/allocations in the TMDL, including any data, analyses, or scientific/technical references that were used, records of correspondence with stakeholders and EPA, responses to public comments, and other supporting materials. This record is needed to facilitate public and/or EPA review of the TMDL.

TMDL Review Checklist

State/Tribe:
§303(d) Segment(s):
Pollutant(s):

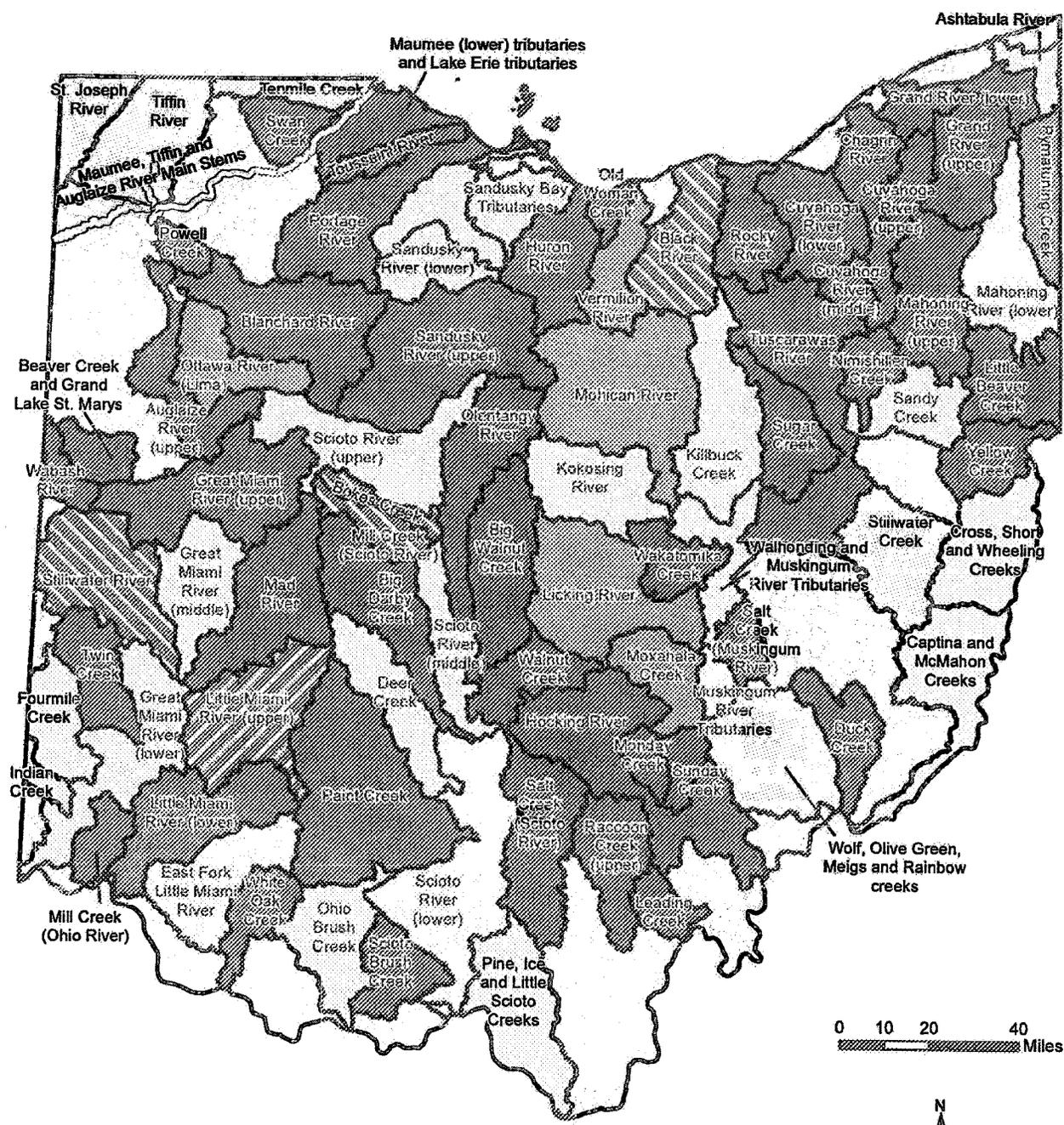
Date Submittal:
Date of EPA Action:
Date Entered into Tracking System:
EPA Reviewer:

Review Element	Adequate?	Recommendations/Comments
Submittal Letter		
Identification of Waterbody, Pollutant of Concern, Pollutant Sources, & Priority Ranking		
Applicable Water Quality Standards & Numeric Targets		
Loading Capacity		
Load Allocations (LA)		

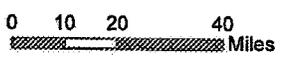
Wasteload Allocations (WLAs)		
Margin of Safety (MOS)		
Seasonal Variation		
Reasonable Assurances: through NPDES permits or if WLAs depend on LA		
Public Participation		
Technical Analysis/Supporting Documentation		
Information entered into TMDL Tracking System		
Other Comments		

Last updated on Tuesday, March 03, 2012

Ohio Total Maximum Daily Load Program Progress

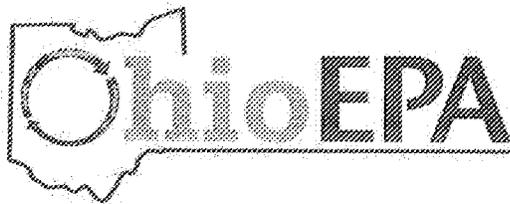


- No data available
- Approved by U.S. EPA
- First cycle TMDL approved by U.S. EPA; second cycle load analysis in progress
- First cycle TMDL approved by U.S. EPA; second cycle watershed assessment in progress
- TMDL nearly complete
- Load analysis in progress
- Watershed assessment in progress



Updated 5/9/2013





Guide to Rule-Making

This guide, required by Ohio Revised Code 119.0311, is intended to help members of the public who participate, or may wish to participate, in the rule-making process of the Ohio Environmental Protection Agency (Ohio EPA).

Upon taking office on Jan. 10, 2011, Governor Kasich issued Executive Order 2011-01K, "Establishing the Common Sense Initiative." According to Lt. Governor Taylor, the Common Sense Initiative was created "to cut through the red tape and eliminate burdensome, costly and duplicative rules and regulations so that businesses and entrepreneurs can more easily put their job-creating ideas into action and help revive Ohio's economy."

According to its Strategic Plan, the Common Sense Initiative Office (CSIO) is guided by the following principles: regulations should facilitate, not hinder, economic growth, regulations should be transparent and responsive, compliance should be as easy and inexpensive as possible and regulations should be enforced fairly and consistently.

Subsequent to the issuance of the Executive Order, the Ohio Legislature enacted Amended Substitute Senate Bill 2 (SB2). SB2 more broadly seeks to identify and limit adverse impacts on businesses regardless of size. Although SB2 was effective on June 7, 2011, many provisions took effect on Jan. 1, 2012.

SB2 codified the creation of the CSIO, altered the procedure for promulgation of agency rules and expanded the jurisdiction of Joint Committee on Agency Rule Review (JCARR). Under SB2, a rule that might have an adverse impact on business is subject to additional analysis by the agency proposing it, the CSIO and JCARR.

The objectives of these new requirements can only be achieved when the process by which regulations are enacted is transparent and accessible to persons outside of government and when those regulations are crafted so they are easy to understand by those affected.

Rule-making Requirements and Authorization

The Ohio Revised Code (ORC) requires and authorizes Ohio EPA to adopt administrative rules. Rules are adopted pursuant to Chapter 119 and section 111.15 of the ORC, which become part of the Ohio Administrative Code (OAC). The Agency may also adopt internal management rules.

What is a rule?

A rule is a regulation or standard, having a general and uniform operation, which is adopted, promulgated and enforced by any agency under the authority of the laws governing such agency.

Ohio EPA's Mission

To protect the environment and public health by ensuring compliance with environmental laws and demonstrating leadership in environmental stewardship.

Ohio EPA's Vision

The Ohio Environmental Protection Agency is a trusted leader and environmental steward using innovation, quality service and public involvement to ensure a safe and healthy environment for all Ohioans.

Agency Organization

Ohio EPA has six major program divisions that implement Ohio's environmental regulations.

Air Pollution Control

(614) 644-2270 | www.epa.ohio.gov/dapc/

Drinking and Ground Waters

(614) 644-2752 | www.epa.ohio.gov/ddagw/

Environmental Response and Revitalization

(614) 644-2924 | www.epa.ohio.gov/derr/

Environmental and Financial Assistance

(614) 644-2798 | www.epa.ohio.gov/defa/

Materials and Waste Management

(614) 644-2621 | www.epa.ohio.gov/dmwm/

Surface Water

(614) 644-2001 | www.epa.ohio.gov/dsw/

Guide to Rule-Making

Rule-making Process

The rule-making process may be lengthy and complex, but in general, there are standard steps involved in the adoption of rules at Ohio EPA.

Drafting, Review and Early Stakeholder Outreach

The first step in the rule-making process is for Ohio EPA to identify that a rule needs to be amended, rescinded, or created. There are many different reasons to change a rule, some include a quick change, (e.g., incorrect rule reference), a limited rule change (e.g., difficulties with interpretation or application), a full ORC 119.032 review (five-year review) and changes to state or federal law.

In response to EO 2011-01K, Ohio EPA has added an additional step to ensure stakeholders are brought into the rule process as early as possible. This additional early stakeholder outreach and request for information will allow for early feedback before the rule language has been developed by the Agency. The notifications may be different for the type of rule changes necessary.

For quick changes and limited rule changes – The notification will identify the rule and the problem, contain a link to the current rule and provide information on how to comment.

For full ORC 119.032 reviews – The notification will identify the rule, link to the current rule, and provide information on how to comment. If problems with the current rule or concepts on how the rule will be changed have already been identified by Ohio EPA, these may be included in the notification. If the intent is to file the rules as no-change, then this will be identified in the notification.

For changes to state or federal laws – The notification will identify the rule, include the federal or state law that is creating the need for the rule change, link to the current rule and provide information on how to comment.

For other changes not covered by one of the above scenarios - Ohio EPA will provide the best information necessary to allow the stakeholders to comment on the rule.

This notification is not considered an action of the director and would not be public noticed. This is considered an early courtesy to those interested parties that have already signed up to receive rule notifications. The notifications will include a deadline for submitting comments and will ask the commenters for feedback to assist the divisions in filling out the Business Impact Analysis required by the CSI process.

If any comments are received, Ohio EPA will consider those comments when drafting the rule changes. Ohio EPA will not create an official response to comments for these comments. If Ohio EPA feels additional outreach with stakeholders is necessary, the Agency may hold stakeholder meetings, send out additional questions to stakeholders or create external advisory groups. This process does not suggest that Ohio EPA is required to send out drafts or negotiate rule language with stakeholders.

Interested Party Review

The interested party review process is designed to allow interested parties, stakeholders or citizens to make comments regarding the rule prior to adoption. Ohio EPA conducts the interested party review prior to filing the proposed rule with JCARR. JCARR's primary function is to review rules in accordance with Ohio's laws. JCARR, part of the Ohio Legislature, consists of five State Representatives and five State Senators.

Once the draft rule is completed, it is posted on Ohio EPA's website along with the completed Business Impact Analysis. Interested parties are notified that the draft is available for review. A deadline for submitting comments is set by Ohio EPA. This timeframe is normally 30 days but may be lengthened or shortened as needed.

Interested parties may register to receive notification through the State of Ohio's Rules E-Notification System at www.business.ohio.gov/reform/ or through Ohio EPA's listservs at www.epa.ohio.gov/Rules_and_Laws.aspx. Once registered, individuals will receive notices and communications regarding the creation, amendment, rescission or continuation without change of any rule.

Consider Interested Party Comments

Ohio EPA collects, reviews, and considers each relevant comment, concern or question received during the draft review period. Based on the comments received, Ohio EPA may revise the draft rules as appropriate. The time needed to review and incorporate the comments received varies depending on the complexity of the comments.

Guide to Rule-Making

Submission of the Business Impact Analysis

Ohio EPA is required to send this analysis to the CSIO. CSIO has two options for the Business Impact Analysis:

- Prepare and send recommendations to Ohio EPA for eliminating or reducing adverse impacts.
- Allow 16 days to pass without preparing and sending recommendations.

If a recommendation is received from the CSIO, Ohio EPA will respond to the recommendations and work with the CSIO to resolve the issues. If 16 days pass, the rules can be original filed with JCARR.

Propose Rules to JCARR

When the draft rule is complete, it is filed with JCARR, the Secretary of State and the Legislative Service Commission (LSC). The Secretary of State maintains copy of the proposed rule. LSC reviews the proposed rule to ensure that it is properly formatted and codified.

When the rule has been filed with JCARR, it is called a “proposed rule.” Ohio EPA submits a Rule Summary and Fiscal Analysis (RSFA), Environmental Amendment/Adoption Form and the Business Impact Analysis with the proposed rule. These forms answer many questions regarding the content of the proposed rule, the legal basis for the rule, the environmental justification, the adverse impacts to business, the estimated budgetary effect of the proposed rule and the estimated cost of compliance by all directly affected persons.

The proposal to JCARR starts the 65-day JCARR jurisdiction. Within the first 31 to 40 days of that jurisdiction, Ohio EPA will hold a public hearing to provide an opportunity for anyone to provide oral testimony on the rule.

Public Notice, Comment Period and Hearing

When the rule is proposed, Ohio EPA public notices the proposal and begins the formal public comment period. The public comment period usually ends on the day of the public hearing. Ohio EPA conducts public hearings for all new, amended and rescinded rules. A public hearing is the public’s opportunity to provide oral testimony for the record. Those who choose not to provide oral testimony are encouraged to submit their comments in writing. Ohio EPA considers all relevant comments when deciding whether to adopt, amend or rescind a rule. Public hearing notices are posted in Ohio EPA’s Weekly Review, on the Register of Ohio’s website (www.registerofohio.state.oh.us) and Ohio EPA’s website at www.epa.ohio.gov/calendar.aspx.

Consider Public Comments

Written and oral comments received during the public comment period receive the same consideration. Ohio EPA carefully reviews all submitted comments and may revise the proposed rule as appropriate.

JCARR Hearing and Jurisdiction

JCARR has 65 days to review the rule to ensure:

- the rules do not exceed the scope of the rule-making agency’s statutory authority;
- the rules do not conflict with another rule of that agency or another rule-making agency;
- the rules do not conflict with the intent of the legislature in enacting the statute under which the rule is proposed;
- the rule-making agency has prepared a complete and accurate rule summary and fiscal analysis of the proposed rule, amendment or rescission (ORC 127.18) and, if the agency has incorporated text or other material by reference, the agency has met the standards stated in ORC sections 121.72, 121.75 or 121.76; and,
- the rule-making agency has demonstrated, through the business impact analysis, CSIO recommendations, and Memorandum of Response, that the regulatory intent justifies the adverse impact on business.

Within the last 41 to 65 days of JCARR jurisdiction, JCARR holds a hearing to accept comments on the proposed rule. Based on the comments received, JCARR may take action to stop the adoption of the rule for the duration of that general assembly.

Finalize the Rule

Following the 65-day JCARR jurisdiction, the director of Ohio EPA adopts the rule and establishes the date the rule becomes effective. Once the rule is adopted, it is subject to appeal. The adoption of the final rule is public noticed in the Register of Ohio at www.registerofohio.state.oh.us and in Ohio EPA’s Weekly Review.

Guide to Rule-Making

Emergency Rules

In extraordinary circumstances, Ohio EPA may bypass most of this procedure and adopt emergency rules. This requires an order of the governor finding that an emergency exists and suspending the normal procedural requirements of ORC Chapter 119. Emergency rules are not subject to EO 2011-01K or SB2. Emergency rules automatically expire after 90 days, unless, in the interim, the Agency has gone through the normal Chapter 119 rule-making procedure.

Public Involvement

There are many opportunities for the public to participate in the rule-making process. Some of the simplest, and most effective ways, are described here.

- Sign up for the interested party list at www.epa.ohio.gov/Rules_and_Laws.aspx to receive notification of rule-making activities.
- Sign up for the State of Ohio's Rules E-Notification System at www.business.ohio.gov/reform/. Once registered, you will be notified electronically about agency rule actions. The Rules E-Notification System notifies interested parties and allows comment feedback during the executive order review of rules for selected state agencies. This notification and comment feedback period will be conducted in concert with Ohio EPA's established interested party review period.
- Review and comment on draft rules.
- Review the rule proposal and public hearing notices.
- Attend Ohio EPA and JCARR public hearings.

Resources

- Joint Committee on Agency Rule Review - www.jcarr.state.oh.us
- E-Notification System - www.business.ohio.gov/reform
- Ohio EPA Rules and Laws - www.epa.ohio.gov/Rules_and_Laws.aspx
- Register of Ohio - www.registerofohio.state.oh.us
- Common Sense Initiative Office - www.governor.ohio.gov/PrioritiesandInitiatives/CommonSenseInitiative.aspx

Who to Contact

If you have a question regarding the rule-making process, please contact Ohio EPA's rules coordinator at (614) 644-2782. If your question concerns a particular rule or technical requirement, please contact the appropriate division listed on the first page of this fact sheet.

