

NEW SOURCES, NEW GROWTH AND THE CLEAN WATER ACT

*Jeffrey M. Gaba**

In 1972, Congress adopted the Clean Water Act (“CWA”).¹ Among the many ambitious goals of the CWA, one stood out. Congress decreed that, wherever attainable, all waters in the United States were to achieve a level of water quality that would support aquatic populations and recreation in and on the water by July 1, 1983.² Thus was born the goal of “fishable/swimmable” waters.³

The tools necessary to achieve this goal were arguably in place in 1972.⁴ Industrial and municipal dischargers were required to meet “technology-based” discharge limitations;⁵ additional restrictions, if necessary to achieve fishable/swimmable waters, were to be imposed through the water quality standards program.⁶ To be sure, controls on nonpoint sources were lacking, but with proper planning and political commitment, the CWA provided powerful tools to achieve water quality goals in the 1980s.⁷

Didn’t happen. Although substantial reductions in the discharge of pollutants can be credited to the CWA, the Environmental Protection Agency (“EPA”) has estimated that 35% of streams had not met the “fishable/swimmable” goal by the mid-1990s.⁸ For several reasons, not the least

* Professor of Law, Dedman School of Law, Southern Methodist University. B.A., University of California, Santa Barbara, 1972; J.D., Columbia University, 1976; M.P.H., Harvard University, 1989. Of Counsel, Gardere, Wynne, Sewell LLP, Dallas, Texas. The author would like to acknowledge the financial support of the Dedman School of Law. Finally, the author would like to thank Dave, Caroline, and the staff at Starbucks without whose assistance it would have been impossible for this Article to be written.

1. 33 U.S.C. §§ 1251-1387 (2000). The 1972 act was, in fact, adopted as the Federal Water Pollution Control Act Amendments of 1972. See William L. Andreen, *The Evolution of Water Pollution Control in the United States—State, Local and Federal Efforts, 1789-1972: Part II*, 22 STAN. ENVTL. L.J. 215 (2003).

2. Clean Water Act § 101(a)(2), 33 U.S.C. § 1251(a)(2) (2000). In addition, the CWA contains the goals, among others, of eliminating the discharge of pollutants in navigable waters by 1985 and the discharge of toxic pollutants in toxic amounts. *Id.* § 101(a)(1), (3), 33 U.S.C. § 1251(a)(1), (3). We are still working on those goals as well.

3. See Andreen, *supra* note 1, at 264.

4. See generally Andreen, *supra* note 1.

5. *Id.* at 281.

6. *Id.* at 282.

7. See Linda A. Malone, *The Myths and Truths That Ended the 2000 TMDL Program*, 20 PACE ENVTL. L. REV. 63 (2002).

8. See ENVTL. PROT. AGENCY, WATER QUALITY CONDITIONS IN THE UNITED STATES: A PROFILE OF THE 1998 NATIONAL WATER QUALITY INVENTORY REPORT TO CONGRESS, EPA-841-F-00-006 (June 2000). The EPA also estimated that 45% of assessed lakes and 44% of assessed estuaries were “pol-

being the commitment of citizens to force its implementation, there has been a renewed effort by the EPA to implement the water quality standards program and thereby achieve the goal of the CWA.⁹

There is currently an ongoing controversy about the future of the water quality standards program.¹⁰ For the most part, the focus of this controversy has been on two closely related issues: control of nonpoint sources and the development of “total maximum daily loads” (“TMDLs”).¹¹ Nonpoint sources, such as agricultural runoff, have never been the subject of effective regulation under the CWA, and they now constitute the major source of pollution that contributes to the failure to achieve water quality goals.¹² TMDLs are a device to assure attainment of water quality goals by calculating the amount of allowable pollutants that may be discharged into a water body and allocating these loads among pollutant sources.¹³ The issues of nonpoint source control and TMDLs are closely related since the allocation process can be a vehicle for identifying and implementing necessary nonpoint source controls. The Clinton Administration adopted far-reaching changes to the water quality standards regulations that, among other things, would have expanded the application of TMDLs to nonpoint sources and provided a new focus on implementation plans.¹⁴ Although most major por-

luted.” *Id.* at 1.

9. See OLIVER A. HOUCK, *THE CLEAN WATER ACT TMDL PROGRAM: LAW, POLICY AND IMPLEMENTATION* (1999) 49-64 (discussing the history of efforts to expand the water quality standards program).

10. In 1998, the EPA published an Advanced Notice of Proposed Rulemaking that contained an extended discussion of major water quality standards issues. Water Quality Standards Regulation, 63 Fed. Reg. 36,742, 36,743 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131) [hereinafter 1998 ANPRM]. In the 1998 ANPRM, the EPA noted:

In recent years there has been a rising level of scrutiny placed on water quality standards and the State, Tribal and EPA decisions based on water quality standards. The increased scrutiny comes from virtually all parties affected by water quality-based decisions and is evidenced by the growing tide of challenges to State standards, EPA policies and guidance, and individual water quality-based decisions.

Id.

11. HOUCK, *supra* note 9, at 5.

12. See generally GENERAL ACCOUNTING OFFICE, *WATER QUALITY: FEDERAL ROLE IN ADDRESSING—AND CONTRIBUTING TO—NONPOINT SOURCE POLLUTION*, GAO/RCED-99-45 (Feb. 1999). The report describes nonpoint source pollution as including “a wide array of land-based activities such as timber harvesting, grazing, urban development, and agriculture.” *Id.* at 18.

13. See *infra* notes 44-61 and accompanying text for a discussion of TMDLs.

14. Starting in 1999, there was a flurry of regulatory attention to the water quality standards program that corresponded with the end of the Clinton Administration. Since it is impossible to keep the various regulatory actions straight without a scorecard, here is a list of the major actions:

- Proposed Revisions to the Water Quality Planning and Management Regulation, 64 Fed. Reg. 46,012 (proposed Aug. 23, 1999) (to be codified at 40 C.F.R. pt. 130) [hereinafter 1999 TMDL Proposal] (proposal addressing major issues relating to development of TMDLs and nonpoint source controls).
- Revisions to the National Pollutant Discharge Elimination System Program and Federal Antidegradation Policy in Support of Revisions to the Water Quality Planning and Management Regulation, 64 Fed. Reg. 46,058 (proposed Aug. 23, 1999) (to be codified at 40 C.F.R. pts. 122, 123, 124, 131) [hereinafter 1999 NPDES Proposal] (proposal addressing several issues relating to implementation of the TMDL program in NPDES permits, including a major set of proposals to

tions of these regulations were blocked by Congress and withdrawn by the Bush Administration,¹⁵ the debate and controversy continues.

One issue has not, however, attracted adequate attention. That is the issue of growth.¹⁶ How does, and how should, the water quality standards program deal with either new sources of water pollution or expansion of discharges by existing sources? This issue implicates two distinct problems. First, how can growth be allowed on water bodies not yet meeting the fishable/swimmable goal? Second, how can water quality be maintained in water bodies already meeting the goals? The first problem is now addressed, if at all, through a policy of reserving pollution load allocations for future

require offsets for any new or significantly expanded dischargers on waters not meeting water quality standards goals).

- Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulation, 65 Fed. Reg. 43,586 (July 13, 2000) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, 130) [hereinafter 2000 TMDL Regulation] (adopting significant changes to the TMDL program, including a requirement for development of implementation plans for control of nonpoint sources, and abandoning the 1999 proposal for offsets).
- Amendments to Streamline the National Pollutant Discharge Elimination System Program Regulations: Round Two, 65 Fed. Reg. 30,886 (May 15, 2000) (to be codified at 40 C.F.R. pts. 22, 117, 122, 123, 124, 125, 144, 270, 271) (adding a compliance schedule to 40 C.F.R. § 122.4(i)).
- Withdrawal of Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulation, 68 Fed. Reg. 13,608 (Mar. 19, 2003) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, 130) [hereinafter 2003 Withdrawal] (withdrawing the 2000 TMDL regulations and re-establishing the pre-existing water quality standards requirements).

At the end of the process, by the way, the score read: “water quality—zero, status quo—100.”

15. Congress, in the Military Construction Appropriations Act, Pub. L. No. 106-246, 114 Stat. 511 (2000), prohibited the EPA from using funds to implement the regulation until the prohibition expired on Sept. 30, 2001. *See* Delay of Effective Date of Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulations; and Revision of the Date for State Submission of the 2002 List of Impaired Waters, 66 Fed. Reg. 41,817 (proposed Aug. 9, 2001) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, 130). The EPA subsequently withdrew the regulation. *See* 2003 Withdrawal, 68 Fed. Reg. at 13,608.

16. To say that the issue has not received adequate attention is not to say that it is unacknowledged or ignored. As early as 1968, antidegradation policies of the Department of the Interior were directed at a “new source of pollution or an increased source of pollution.” 1998 ANPRM, 63 Fed. Reg. 36,742, 36,779 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131) (quoting 1968 policy). In 1999 the EPA proposed, and later abandoned, an ambitious “offset” program to allow growth in waters not meeting water quality standards. *See infra* notes 102-11 and accompanying text. Nonetheless, it is fair to say that the bulk of the discussion of water quality standards has ignored the special problems created by growth. In its 1998 ANPRM, the EPA used the word “growth” once, and that was in reference to algae. 1998 ANPRM, 63 Fed. Reg. at 36,778. The term “new source” was only used once in a general reference to antidegradation provisions. *Id.* at 36,779.

The reasons for the relative inattention to growth issues are not hard to understand. Until recently, virtually the entire water quality standards program was in a state of benign neglect. *See* HOUCK, *supra* note 9, at 49-51; Jeffrey M. Gaba, *Federal Supervision of State Water Quality Standards Under the Clean Water Act*, 36 VAND. L. REV. 1167, 1170 (1983). Over the last ten years it has been in “catch up” mode, trying to implement the basics of the program, such as TMDLs. But, as was said of Willie Loman, “Attention must be paid.” ARTHUR MILLER, *DEATH OF A SALESMAN* 56 (Penguin Books 1976).

growth.¹⁷ The second problem is ostensibly addressed by the EPA's "antidegradation" policy. This policy is intended to protect existing uses of water and prevent the degradation of high quality waters. In neither case, however, has the EPA either established or implemented coherent policies.

But the issue of growth cannot be ignored. Whatever progress is made towards attaining water quality standards, the attainment and maintenance of those standards will be affected by population and economic growth and the resulting increased discharges of pollutants. In other words, water quality goals are a moving target, and whatever controls are imposed on existing sources, either the attainment of goals must fail or the growth stopped if mechanisms are not in place to deal with new discharges.

The purpose of this Article is to explain and explore the means by which the CWA addresses the problem of growth in connection with the achievement and maintenance of water quality standards. Section I contains a brief discussion of the basic structure of the CWA. Section II discusses those existing water quality standards requirements that most directly affect the issue of growth. These include two distinct, and largely unrelated, sets of requirements. First, the Article discusses those provisions that affect the regulation of new or expanded discharges on waters not yet meeting water quality goals. These include, among others, the provisions of the TMDL process that address the allocation of waste loads to account for growth, and the EPA's aborted proposal to require "offsets" by new or expanding facilities. Second, the Article discusses the effect of the EPA's "antidegradation" provisions on the ability of new or expanded facilities to discharge into waters that are now achieving water quality goals. Section III discusses the relationship between these "attainment" and "maintenance" provisions. Section IV discusses some of the challenges faced in revising the water quality standards program to deal effectively with the issue of growth.

I. THE STRUCTURE OF THE CLEAN WATER ACT

A. Control Over Point Sources

The major focus of the CWA since its adoption in 1972 has been control over the discharge of pollutants by "point sources." Point sources include industrial and municipal facilities that discharge pollutants from pipes or other discrete sources,¹⁸ and the basic structure of the CWA as it applies to these point sources is really quite simple. The discharge of a pollutant from a point source is illegal unless done in compliance with a National Pollutant Discharge Elimination System ("NPDES") permit.¹⁹ At a mini-

17. See *infra* notes 77-88 and accompanying text. Perhaps most remarkably, the regulations seem to actually prohibit any new sources on waters not meeting water quality standards where such allowances do not exist. See *infra* notes 89-101 and accompanying text.

18. 33 U.S.C. § 1362(14) (2000).

19. Clean Water Act § 301(a), 33 U.S.C. § 1311(a) (2000). NPDES permits are issued for a maximum period of five years, and at the end of that period, they are subject to review and reissue. 40 C.F.R.

imum, this means that every industrial and municipal facility discharging pollutants into water from a pipe is required to have a federally-mandated NPDES permit containing limits on the pollutants that may be discharged.

There are essentially two bases by which these discharge limits, known as effluent limitations, may be included in a permit. First, limits may be “technology-based.”²⁰ This means that the amount of pollutants that may be discharged is established based on an assessment of available pollution control technology.²¹ Additionally, effluent limits may be based upon “water quality standards.”²² This means that the limits are set at a level that is necessary to ensure that a designated level of water quality is met.²³ Under the CWA, all dischargers must meet technology-based limits; more stringent water quality standards-based limits are included in a permit only if the technology-based limitations are inadequate to attain water quality standards.²⁴ NPDES permits are written for a maximum term of five years.²⁵ At the end of that period, they are subject to renewal and revision.²⁶

Okay, maybe it is not that simple. There are elements in the establishment of both technology-based and water quality standards-based effluent limitations, as well as nonpoint source planning, that are important to understanding the limitations that exist on new or increased discharges.

1. Establishing Technology-Based Limitations

The requirement to achieve technology-based limitations was one of the great innovations of the 1972 amendments establishing the CWA. Dischargers are to use the best existing technology to control pollution regardless of the effect of the discharge on the environment. Technology-based limits are now largely established on a national basis for classes or categories of industrial sources; a permit writer just looks up the applicable effluent limitation in a book of the EPA regulations.²⁷

§ 122.46 (2003). During the permit term, permits may be “reopened” in certain situations to allow revision of applicable permit requirements. *Id.* § 122.62. NPDES permits were initially issued by the EPA, but they may be issued by a state if the state has received delegated authority from the EPA. To date, all but a handful of states have basic authority to issue NPDES permits to facilities within their jurisdiction. *See* *Envtl. Prot. Agency, National Pollutant Discharge Elimination System: State Program Status*, at <http://cfpub.epa.gov/npdes/statestats.cfm> (last modified Apr. 14, 2003).

20. Clean Water Act §§ 301(b), 306, 33 U.S.C. §§ 1313, 1316 (2000).

21. *See, e.g., Nat'l Wildlife Fed'n v. EPA*, 286 F.3d 554 (D.C. Cir. 2002) (discussing the process by which the EPA develops technology-based limitations).

22. Clean Water Act § 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C) (2000).

23. *See generally* Gaba, *supra* note 16.

24. *See* 33 U.S.C. §§ 1311, 1313, 1316 (2000).

25. Protection of Environment, 40 C.F.R. § 122.46(a) (2003).

26. Even this statement is somewhat misleading. Under provisions of the Administrative Procedure Act and EPA regulations, an existing permit continues in effect after its expiration if the permittee has properly applied for renewal. Thus, an existing permit may continue for longer than five years if no action is taken by the permitting authority. *Id.* § 122.6. Permits may be modified during their term, but only for enumerated reasons. *Id.* § 122.62. It does not appear that revisions to waste load allocations would justify reopening an existing permit.

27. *See* *E.I. DuPont de Nemours & Co. v. Train*, 430 U.S. 112 (1977) (confirming the EPA’s ability to establish uniform, national technology-based effluent limitations). The EPA’s industry-specific,

By definition, technology-based limitations are applied independently of any impact on local receiving water quality.²⁸ Therefore, new or increased quantities of discharge by a source should not normally affect the stringency of technology-based limitations. Phrased another way, the requirement to achieve technology-based limits does not, in general, provide a basis for imposing specific limitations based on the environmental impact associated with new or expanded sources.

Although technology-based controls do not directly address environmental issues arising from growth, the CWA does distinguish between technology-based controls on existing sources and new sources. Existing sources are generally subject to technology-based effluent limits reflecting either “best available technology” or “best conventional . . . technology.”²⁹ The class of “new sources” is subject to new source performance standards (“NSPS”) representing “best available demonstrated control technology.”³⁰ New sources in theory, if not in practice, are subject to more stringent technology-based limitations in their permits.

Not all new sources are, however, “new sources” under the CWA. A facility is classified as a “new source” only if it commences construction after promulgation of a national NSPS.³¹ If the EPA has not promulgated an NSPS, a facility, regardless of when it is built, is not a new source. The distinction between existing and new sources is not based on special concerns arising from the new addition of pollutants to a water body. Rather, Congress recognized that the ability to use the pollution control equipment differed between existing and new sources. Existing sources may, as a matter of practical necessity, be limited to adding some end-of-pipe piece of pollution control equipment; new sources theoretically have greater flexibility to include pollution control into the design of the facility. Thus, the new source/existing source distinction has limited relevance in understanding the provisions of the CWA that address the special problem of growth.³²

technology-based effluent limitation guidelines are found at 40 C.F.R. §§ 405-71 (2003).

28. See *Weyerhaeuser Co. v. Costle*, 590 F.2d 1011 (D.C. Cir. 1978) (rejecting the need to consider the impact on local receiving water quality in establishing technology-based effluent limitations guidelines).

29. Clean Water Act § 301(b), 33 U.S.C. § 1311(b) (2000).

30. *Id.* § 306, 33 U.S.C. § 1316.

31. *Id.* § 306(a)(2), 33 U.S.C. § 1316(a)(2). The EPA defines a “new source” at Protection of Environment, 40 C.F.R. § 122.2 (2003). According to this regulation, the applicable date for determining new source status is whether construction on the source commenced after the date of promulgation of NSPS. The relevant date is the date of “proposal” only if EPA promulgates a final NSPS within 120 days of proposal. This strange distinction comes from the language of section 306(a)(2) of the Clean Water Act, which defines a new source with reference to the date of proposal of an NSPS “if such standard is thereafter promulgated in accordance with this section.” Section 306(b)(1)(B) requires promulgation of standards within 120 days of proposal. If, as is always the case, promulgation does not occur within 120 days of proposal, the EPA has established the date of promulgation as the relevant date.

32. Despite the limited relevance of the new source/existing source classification for understanding growth issues, there are aspects of the legal rules applicable to “new sources” that do affect the ability to limit the new or increased discharge of pollutants. First, the issuance by the EPA of NPDES permits to “new sources” is subject to the Environmental Impact Statement (“EIS”) process of the National Environmental Policy Act (“NEPA”). Clean Water Act § 511(c)(1), 33 U.S.C. § 1371(c)(1) (2000). This means that at least major “new sources” may not receive a federally issued NPDES permit until an EIS is

Of greater relevance to the issue of growth is the manner in which effluent limitations are expressed. Under EPA regulations, most effluent limitations in NPDES permits are written to limit the mass of pollutants discharged.³³ Thus, in theory, a facility is limited in the total quantity of pollutants that it is allowed to discharge. Mass limits are typically imposed by expressing the limitations in terms of units of production. Under EPA regulations, these production-based limits are calculated based not upon some maximum production capacity, but upon “a reasonable measure of actual production;”³⁴ mass-based limitations for new sources are calculated based on estimates of “projected production.”³⁵ In order to account for potential expansion of production by sources, the regulation authorizes inclusion of “alternate permit limitations” based on “anticipated” increased or decreased production levels.³⁶ Thus, the regulations provide some mechanism to regulate anticipated growth within the limits of a permit. Any expansion that exceeded anticipated levels would require notification to the permit writer and potentially result in modification of the permit.³⁷

prepared that evaluates the environmental impact of the operation of the facility. Presumably, this would include an assessment of the environmental consequences of the new discharges. In contrast, no EIS is required for the issuance of a permit to an existing source.

The application of NEPA to new sources is less significant than it may seem. The NEPA process for new sources only applies to EPA-issued permits; permits issued by states that have received NPDES permit authority are not subject to NEPA. 40 C.F.R. § 122.29(c)(1)(ii) (2003). *See* District of Columbia v. Schramm, 631 F.2d 854 (D.C. Cir. 1980) (when state issues NPDES permit, there is no “major Federal action” and thus no NEPA requirement). To date, the vast majority of states have received this delegated authority, and thus the scope of the NEPA requirement is limited. *See* Env'tl. Prot. Agency, National Pollutant Discharge Elimination System: State Program Status, at <http://cfpub.epa.gov/npdes/statestats.cfm> (last modified Apr. 14, 2003) (chart of approved states). Further, although environmental impacts may be identified through the EIS process, it is far from clear what authority the EPA has to deny or condition a new source permit based on this information. *See* Natural Res. Def. Council v. EPA, 859 F.2d 156 (D.C. Cir. 1988) (limiting the EPA's authority to impose NPDES permit requirements based on NEPA). Nonetheless, the NEPA requirement does add some element of review to this class of “new sources.”

Second, in something of a quid pro quo for potentially more stringent technology-based limits, the CWA exempts new sources from more stringent performance standards for ten years after construction. Clean Water Act § 306(d), 33 U.S.C. § 1316(d) (2000); 40 C.F.R. § 122.29(d) (2003). Thus, in some cases there may actually be less authority to increase technology-based limits on new sources than there is for existing sources.

Finally, there is one significant procedural issue applicable to new sources. These new sources are not authorized to commence discharging pollutants that are subject to an administrative challenge until completion of the agency review process. 40 C.F.R. § 124.16(a) (2003). In contrast, existing sources may continue to discharge during administrative review. Thus, the EPA has asserted greater authority to control and review new facilities prior to their commencing discharge.

33. *See* 40 C.F.R. § 122.45(f) (2003). *See, e.g., In re* City of San Francisco, 4 E.A.D. 559, 1993 WL 118290 (EPA) (remanding NPDES permit for failure to properly include enforceable mass-based effluent limitations).

34. Protection of Environment, 40 C.F.R. § 122.45(b)(2)(i) (2003).

35. *Id.*

36. *Id.* § 122.45(b)(2)(ii)(A)(1).

37. *See id.* § 122.41(l)(1)(ii).

2. Establishing Water Quality Standards-Based Limitations

The water quality standards program mandated by section 303 of the CWA is the basis for imposition of additional effluent limitations based on receiving water quality. The derivation of these water quality-standards based permit limitations is a complex process that follows from a series of requirements of the CWA.³⁸ First, states are required to establish “designated uses” for all stream segments within the state.³⁹ These “designated uses” define the specific goals or purposes of the water body and may include such uses as a warm water fishery or public drinking water supply.⁴⁰ The so-called “fishable/swimmable” goal of section 101(a)(2) of the CWA has been translated by the EPA into a requirement that all waters have a designated use approximating “fishable/swimmable,” unless the state can, through a use attainability analysis, justify that the goal cannot be met.⁴¹ Water segments that are not meeting their designated uses are referred to as “impaired waters” or “water quality limited segments” (“WQLS”).

Designated uses are not, in themselves, a basis for establishing specific effluent limitations in a permit. Rather, designated uses form the basis for establishing water quality “criteria.” Criteria identify the specific, usually maximum, concentration of a pollutant that may exist in a water body while still allowing the designated use to be attained.⁴² Criteria are generally expressed as a specific number, but they also may be expressed in other forms, such as a bioassay or narrative.⁴³ Regardless of how expressed, most effluent limitations in permits are derived to ensure that the concentrations of a pollutant discharged by a source do not cause the criteria value for that pollutant to be exceeded in the water body itself.

Transformation of ambient, instream criteria to an effluent limitation in a permit requires additional steps. As contemplated by the structure of the CWA, this transformation is to be accomplished by developing TMDLs that specify the total mass of a given pollutant that may be discharged into a defined water body segment.⁴⁴ TMDLs are mandated on the class of “im-

38. See Clean Water Act § 303(c)-(e), 33 U.S.C. § 1313(d)-(e) (2000). The EPA’s water quality standards regulations are found at Protection of Environment, 40 C.F.R. § 131 (2003); these regulations contain requirements relating to establishment of designated use, water quality criteria, and antidegradation policies. The EPA’s water quality management regulations are found at Protection of Environment, 40 C.F.R. § 130; these regulations contain requirements relating to the TMDL and water quality planning process. See generally WATER QUALITY STANDARDS HANDBOOK: SECOND EDITION, EPA-823-B-94-005a (Aug. 1994) (hereinafter WATER QUALITY STANDARDS HANDBOOK).

39. See WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 2-1.

40. *Id.* at 2-1 to 2-4 (discussing the classification of designated uses).

41. See Protection of Environment, 40 C.F.R. § 131.10(j) (2003).

42. WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 3-1 to 3-38.

43. See Protection of Environment, 40 C.F.R. § 131.11(b) (2003).

44. Clean Water Act § 303(d), 33 U.S.C. § 1313(c) (2000). TMDLs are intended to assure attainment of water quality standards under a variety of conditions. Thus, TMDL calculations are required to include an assessment of seasonal variation and a margin of safety. *Id.*

TMDLs are to be based on a designated “critical low flow” that represents the seasonal conditions where instream flow is low. The EPA has traditionally recommended that states base their calculations on the lowest flows that are expected to occur seven days every ten years (7Q10). WATER QUALITY

paired” waters not meeting their designated uses.⁴⁵ Following derivation of a TMDL, states are required to allocate the total load among sources.⁴⁶ Loads allocated to point sources are known as “wasteload allocations” (“WLAs”). Loads allocated to nonpoint sources are known as “load allocations” (“LAs”). TMDLs and associated LAs, together with other material (including an implementation plan) are to be included in the “Continuing Planning Process” document required by section 303(e).⁴⁷

The process of translating TMDLs into enforceable “water quality-based effluent limitations” (“WQBELs”) seems conceptually straightforward. The TMDL establishes the total mass of a pollutant that may be discharged into a stream segment.⁴⁸ The WLA/LA process allocates the allowable mass that may be discharged by individual sources. The permit writer takes the allocated mass and calculates an enforceable mass-based WQBEL. That is the process generally described by the EPA. A 1996 document, *U.S. EPA NPDES Permit Writers’ Manual*, provides, as illustration, a TMDL being divided into pie-shaped wedges applicable to individual point and nonpoint sources.⁴⁹ It describes the WLA as “the fraction of a receiving water’s TMDL that is allocated to one of its existing or future point sources”⁵⁰ In this simplified conception, one would imagine that translating the WLA into a WQBEL simply involves establishing limits to ensure that no more than the allocated mass of pollutants is discharged by a source.

This conception is both incomplete, and in many respects, wrong.⁵¹ In fact, the WLA process can involve substantial, site-specific modeling of the

STANDARDS HANDBOOK, *supra* note 38, at 5-11. The EPA, sadly, approves water quality standards calculations based on alternative low flows such as 7Q2. Use of 7Q2 weakens the stringency of water quality-based requirements by allowing greater dilution. This is an issue that deserves more attention than it has received. *See* *Natural Res. Def. Council v. EPA*, 806 F. Supp. 1263 (E.D. Va. 1992) (allowing the EPA to use “harmonic mean” rather than 7Q10 in the particular context of development of a water quality criterion for dioxin).

45. *See* Clean Water Act § 303(d), 33 U.S.C. § 1313(c) (2000). *See also* 40 C.F.R. § 130.7(b) (2003). Identification of the list of impaired waters for which TMDLs must be prepared has been one of the most contentious issues under the CWA. Section 303(d) requires formal designation of these water bodies, and the list is subject to review and approval by the EPA. Part of the controversy has involved the point/nonpoint source debate; must waters that are failing to meet water quality standards due to pollution from nonpoint sources be designated as impaired and subject to TMDLs? In *Pronsolino v. Nastri*, 291 F.3d 1123 (9th Cir. 2002), the Ninth Circuit said yes. What has not received attention is the relationship, if any, between designation of waters as “impaired” under section 303(d) and the application of the EPA’s antidegradation policy.

46. Under the EPA’s regulations, a TMDL is actually defined to include applicable waste load allocations and load allocations. 40 C.F.R. §§ 130.2(g)-(i), 130.7(c) (2003).

47. Clean Water Act § 303(e), 33 U.S.C. § 1313(e) (2000).

48. The process of establishing TMDLs is, of course, not at all simple. The EPA has described the process as “dependent on the location of point sources, available dilution, water quality standards, nonpoint source contributions, background conditions, and instream pollutant reactions and effluent toxicity. All of these factors can affect the allowable mass of the pollutant in the waterbody.” ENVTL. PROT. AGENCY, EPA-505-2-90-001, TECHNICAL SUPPORT DOCUMENT FOR WATER QUALITY-BASED TOXICS CONTROL 67 (1991) [hereinafter TSD].

49. ENVTL. PROT. AGENCY, EPA-833-B-96-003, NPDES PERMIT WRITERS’ MANUAL 104-105 (1996).

50. *Id.* at 106-107.

51. Calculation of TMDLs and translation of WLAs into permit limits is obscure, technical, and critical to understanding the water quality standards process. Most of the literature treats this process the

effects of a specific discharge, and the process of deriving WQBELs can involve instream assessment to ensure that water quality criteria are not exceeded at the boundary of a mixing zone. In other words, the process of final development of enforceable limits involves a confusing relationship among development of TMDLs, WLAs, and WQBELs.

The EPA's *NPDES Permit Writers' Manual* states, for example, that "[t]he appropriate WLA is determined through an exposure assessment. Water quality models are the primary tools utilized by regulatory agencies in conducting an exposure assessment to determine a WLA. Models establish a quantitative relationship between a waste's load and its impact on water quality."⁵² In other words, the derivation of a WLA is not a simple allocation of mass, but a process of modeling to ensure that a discharge will not cause violation of water quality standards in the stream, typically at the edge of a mixing zone.

The EPA's *Technical Support Document for Water Quality-Based Toxics Control*⁵³ describes a complex process of deriving WLAs. In part, it involves varying schemes for allocating required reductions among sources.⁵⁴ In part, however, it involves site-specific consideration of factors in which the calculation of a WLA hinges on model assumptions regarding instream water quality, stream flows, and dispersion of pollutants.⁵⁵ Following this derivation of a site-specific WLA, the process of calculating the WQBEL seems largely reduced to consideration of variability within the source's flow to ensure that the final WQBEL is achievable and ensures compliance with WLA limits on a consistent basis.⁵⁶

More confusing is the derivation of a WQBEL in the absence of a previously approved TMDL/WLA. Since, until recently, few TMDLs had been adopted, the process of establishing limits has, inevitably, included mechanisms for deriving WQBELs in the absence of a WLA. Indeed, the process of establishing WQBELs described in the 1991 Technical Support Document seems to operate independent of any prior planned allocation of WLAs. Rather, the WLA process is incorporated into an individual permit process in which the permit applicant is involved in generating data used to

way high school sex education treats reproduction; it ignores the important stuff. This is not to say that the TMDL/WLA/WQBEL process is sexy, but it is critical to understanding the strengths and limits of the water quality standards process.

52. *Id.* at 107.

53. TSD, *supra* note 48. In its 2000 water quality standards regulations, the EPA refers to the TSD as one of the relevant, current EPA guidance documents applicable to water quality-based permitting decisions. 2000 TMDL Regulation, 65 Fed. Reg. 43,586, 43641 (July 13, 2000) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, 130).

54. The TSD lists a variety of different, acceptable means of allocation. TSD, *supra* note 48, at 69 tbl.4-1. The EPA states that the "most commonly used allocation methods have been equal percent removal, equal effluent concentrations, and a hybrid method." *Id.* at 69.

55. *Id.* at 98.

56. The EPA has stated that "[d]irect use of a WLA as a permit limit creates a significant risk that the WLA will be enforced incorrectly, since effluent variability and the probability basis for the limit are not considered specifically." *Id.* at 96.

apply various modeling alternatives for calculation of the WLA and QBEL.⁵⁷

As discussed below, one of the more contentious issues in developing QBELs involves the assumptions relating to existing instream water quality.⁵⁸ In many cases, permit writers assume that there are no existing pollutants in the stream; this allows allocation of a full load to the proposed discharger. Use of actual, instream water quality data, however, assures that the existing discharges are factored into the calculations for a proposed discharge permit. Indeed, use of existing instream water quality data, in itself, seems to be a form of de facto waste load allocation. Assimilative capacity of the water body is allocated based on location. Upstream discharges can have greater authorized discharges than downstream discharges. In many ways, the TMDL/WLA process is not necessary to ensure attainment of water quality goals; it may, rather, be necessary to have a more rational process for deciding how to allocate the assimilative capacity of a water body between upstream/downstream dischargers, point/nonpoint dischargers, and present/future dischargers.

It is, at least, safe to say that the process of derivation of TMDLs, WLAs, and their relationship to development of QBELs is not only confusing, but confused.⁵⁹ In its 2000 rulemaking, in which it withdrew a proposal to require “offsets” for new or expanded sources, the EPA made a truly remarkable admission. The EPA stated:

Subsequent to the proposal, EPA gained additional insight into current practices for deriving water quality-based effluent limits for sources located on impaired waters and discharging the pollutant(s) for which the waterbody is impaired. The EPA found a wide range of practices for deriving such limits with respect to both new dischargers and existing dischargers.⁶⁰

The EPA observed that it “believes that there is considerable room for improvement in establishing water quality-based effluent limits for all dischargers.”⁶¹ It is comforting to know that in the year 2000, the EPA is still

57. The EPA states, for example, that the “type of WLA chosen from which to derive the limits is a matter of case-by-case application, as determined by the permitting authority.” *Id.* at 98.

58. See *infra* note 113 and accompanying text.

59. One is even left questioning whether the TMDL/WLA process is necessary. If water quality criteria are expressed as ambient concentrations of a given pollutant in the water body itself, then an effluent limitation that prohibits discharges in excess of that concentration is adequate. No matter how many dischargers exist, if each is prohibited from discharging in excess of criteria values, then the instream concentrations will not exceed the criteria. In other words, concentrations are not additive. There are, of course, problems with such an approach. It may impose limits more stringent than necessary to achieve water quality standards. It ignores the critical problem of pollutants that bioaccumulate. It is not readily applicable to criteria expressed as other than numerical concentrations. Nonetheless, it suggests that the TMDL/WLA process is the only means of addressing water quality standards issues.

60. 2000 TMDL Regulation, 65 Fed. Reg. 43,586, 43,640 (July 13, 2000) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, 130).

61. *Id.*

“gaining insight” into how its own program, in place since the mid-1970s, is operating.

B. Control Over Nonpoint Sources

The provisions of the CWA that require control over the addition of pollutants by nonpoint sources are also simple. There, basically, are not any.⁶² The control of pollution from nonpoint sources such as agricultural runoff has been politically controversial, and throughout the history of the CWA, Congress has been content to require planning, but no action, to address pollution from nonpoint sources.⁶³

There are several provisions of the CWA that require such planning. Section 208, present in the original 1972 CWA, provides for development of “areawide waste treatment management plans” that can include “best management practice[s]” (“BMPs”) on nonpoint sources.⁶⁴ In 1987, Congress added section 319 that further requires states to develop plans that include provisions for control of nonpoint sources.⁶⁵ Congress conspicuously failed to include a mechanism to allow the EPA to act if states fail to adopt adequate, enforceable plans. Section 303(e) of the CWA also requires states to develop a “continuing planning process” that can include not only provisions for implementation of water quality standards by controls on point sources, but also implementation plans for control of nonpoint sources.⁶⁶

There have been several major developments significant to control of nonpoint sources. First, the EPA has attempted to harness the point source program by expanding NPDES requirements for such sources of pollution as storm water runoff and animal feedlots.⁶⁷ Second, the water quality standards/TMDL process has begun to include consideration of nonpoint sources. In *Pronsolino v. Nastri*,⁶⁸ for example, the Ninth Circuit required development of TMDLs on impaired waters where pollution came exclu-

62. In *American Wildlands v. Browner*, 260 F.3d 1192, 1197 (10th Cir. 2001), the Tenth Circuit rather emphatically stated that, in the CWA, “Congress has chosen not to give the EPA the authority to regulate nonpoint source pollution.” The court used this conclusion to uphold an EPA approval of a Montana water quality standards provision that exempted “nonpoint” sources from antidegradation review. *Id.* at 1198. See *supra* note 115 and accompanying text.

63. See generally WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW Ch. 4.4 (2d ed. 1994).

64. Clean Water Act § 208, 33 U.S.C. § 1288 (2000).

65. *Id.* § 319, 33 U.S.C. § 1329 (2000).

66. *Id.* § 303(e), 33 U.S.C. § 1313(e) (2000). These section 303(e) plans must, among other things, incorporate elements of “area-wide waste management plans” developed under section 208. *Id.*

67. See, e.g., Final Reissuance of National Pollutant Discharge Elimination System Storm Water Multi-Sector General Permit for Industrial Activities, 65 Fed. Reg. 64,746 (Oct. 30, 2000) (issuance of general NPDES storm water permit applicable to a group of industrial facilities); National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, 66 Fed. Reg. 2960 (Jan. 12, 2001) (proposed rule regulating discharges from concentrated animal feeding operations through the NPDES program). See *Concerned Area Residents for the Env’t v. Southview Farm*, 34 F.3d 114 (2d Cir. 1994) (dairy farm is a point source under the CWA).

68. 291 F.3d 1123 (9th Cir. 2002).

sively from nonpoint sources. Third, the EPA has continued to develop a water quality trading program.⁶⁹ This program, which presumably would allow the buying and selling of pollution reductions between point and nonpoint sources, could be a major vehicle for implementing controls on nonpoint sources in a politically acceptable manner.

In 2000, the EPA adopted a major revision of the water quality standards/TMDL program that incorporated new requirements for consideration of nonpoint sources and imposed new requirements on states to adopt some form of "implementation plan" to achieve controls on nonpoint sources.⁷⁰ This program was extremely controversial. Congress specifically delayed its implementation, and the Bush Administration specifically withdrew it.⁷¹

The nonpoint source problem remains, without doubt, the most significant point of controversy under the CWA. Indeed, the distinct issue of growth has been largely submerged within the more contentious issue of nonpoint source controls.

II. CURRENT LEGAL RESTRICTIONS ON NEW OR EXPANDED DISCHARGES OF POLLUTANTS

The express provisions of the CWA contain only limited reference to the special problems associated with growth and expansion.⁷² The structure

69. See Water Quality Trading Policy: Issuance of Final Policy, 68 Fed. Reg. 1608 (Jan. 13, 2003).

70. 2000 TMDL Regulation, 65 Fed. Reg. 43,586 (July 13, 2000) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, 130).

71. See *supra* note 15.

72. Perhaps the "antidegradation" requirements of the water quality standards program, discussed below, can be seen as directly addressing the issue of new and expanded dischargers. See *infra* notes 114-217 and accompanying text. This requirement was not, however, specifically included in the CWA until 1987, and even then only by reference. See *infra* note 118 and accompanying text. It is hard to say that the CWA directly reflects any special concern for the special problems of growth.

This lack of detail in the CWA is in sharp contrast with the Clean Air Act that, through the Prevention of Significant Deterioration ("PSD") program, 42 U.S.C. §§ 7470-92 (2000), and Non-Attainment Program, *id.* §§ 7501-15, has well-established requirements that are triggered by increased emissions from existing or new sources. The parallels between the issues of non-attainment and PSD under the Clean Air Act and the issues of "impaired waters" and "antidegradation" under the CWA are absolutely clear. See Robert W. Adler, *Integrated Approaches to Water Pollution: Lessons from the Clean Air Act*, 23 HARV. ENVTL. L. REV. 203 (1999). Indeed, these issues of attainment and maintenance of environmental quality are inherent in any program that relies on an environmental quality approach to pollution control. This approach is at the core of the Clean Air Act provisions dealing with attainment of National Ambient Air Quality Standards and the CWA provisions dealing with attainment of "water quality standards." The Clean Air Act provisions for offsets are thus of clear significance to developing programs under the CWA.

The differences between the two acts should not, however, be ignored. Non-attainment and PSD provisions of the Clean Air Act create a "new source review" ("NSR") program that targets controls on new or modified major stationary sources. Although many significant consequences follow from NSR, including a requirement of offsets in non-attainment regions, NSR also results in imposition of significant technology-based limitations. In the absence of NSR, existing sources largely escape a requirement for use of technology-based limits. In contrast, the CWA mandates achievement of technology-based standards by all existing sources. Thus, the most significant control requirements under the CWA have not been dependent on development of an NSR program. This, as much as any other factor, may explain the ability to ignore new and expanded source issues under the CWA.

of the CWA, however, mandates attention to growth issues in connection with efforts to attain water quality goals and maintain existing water quality.

First, a word about nomenclature. The terms “existing source,” “new source,” and “new discharger” currently have specific and highly technical meanings under the CWA regulatory programs.⁷³ No existing terms capture the concept of a discharger that adds new or increased amounts of pollutants to a water body. In some cases, the EPA refers to “new or expanded dischargers,” but this phrase is undefined and used rather casually.⁷⁴

Without putting too technical a spin on these terms, this Article will refer to “existing dischargers” and “new dischargers” in a rather common sense way to refer to existing and new sources of pollution on a water body. Basically, “existing dischargers” will refer to sources of pollutants (both point and nonpoint sources) that are already on the stream. “Expanded discharges” will refer to an increased discharge of pollutants by these existing dischargers. “New dischargers” will refer to facilities newly discharging into a water body.⁷⁵ The phrase “new or expanded discharges” will also refer to some addition of pollutants to a water body from either new or existing dischargers.⁷⁶

A. *Growth and the Attainment of Water Quality Goals: TMDLs and the Waste Load Allocation Process*

1. *TMDLs, Waste Load Allocations, and Growth Allowances*

The TMDL/WLA process is a central component of whatever scheme the EPA may currently be said to have for addressing the issue of new and expanded dischargers. Indeed, the EPA’s entire policy on growth and at-

73. As discussed above, a “new source” is one that commences construction after promulgation of an applicable NSPS. *See supra* note 31 and accompanying text. An “existing source” includes any facility that is not a “new source.”

For reasons largely related to permit procedural issues, the EPA also created a classification of “new discharger.” A “new discharger” is currently defined as a facility that (1) discharges pollutants, (2) commenced discharging after April 1979, (3) is not a new source, and (4) has not received an NPDES permit. 40 C.F.R. § 122.2 (2003). The definition essentially includes facilities that would be new sources if they were constructed after promulgation of an applicable NSPS. Since the definition excludes facilities that are “new sources,” one must, in EPA-speak, refer to “new source/new discharger” to refer to newly-discharging facilities. To add just a little more confusion, a “new discharger” is also, by definition, an “existing source.”

74. *See, e.g.*, 1998 ANPRM, *supra* note 10.

75. This classification is similar to one contained in the EPA’s ill-fated August 1999 NPDES Proposal in which the EPA proposed to establish or revise certain definitions related to the growth issue. *See* 1999 NPDES Proposal, *supra* note 14. The EPA proposed to define a new class of “existing dischargers” that would generally have included facilities that have been discharging and have received an NPDES permit. The EPA also defined a new term, “significant expansion,” to refer to situations in which a discharger significantly increased its discharge of pollutants into a water body. The EPA proposed to revise the term “new discharger” to include newly-discharging facilities that had not previously received an NPDES permit. Essentially, this classification would include newly-constructed facilities or facilities that for the first time discharged into a water body. None of these terms would have included nonpoint sources.

76. In contrast, references to “existing sources” and “new sources” will involve the technical meaning now applicable under the CWA.

tainment of water quality standards can be said to exist solely in encouraging states to include a “growth allowance” in their waste load allocation. Under this policy, the EPA encourages states to reserve some portion of the allowable load or discharge into a stream segment to account for both future sources and future expansion by existing sources.

There are a number of problems with the EPA’s policy on growth allowances. First, it is hard to say that it really exists.⁷⁷ The only reference to such a policy in the EPA’s existing regulations is contained in the EPA’s definitions of “wasteload allocation” and “load allocation.” In the existing water quality management regulations, a wasteload allocation is defined as “[t]he portion of a receiving water’s loading capacity that is allocated to one of its existing *or future* point sources of pollution.”⁷⁸ Similarly, a “load allocation” is defined as 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.”⁷⁹ That appears to be it. There are no references to growth allowances or any other requirements relating to future loadings in any other part of the EPA’s water quality management or water quality standards regulations.

Prior to the late 1990s, it is difficult to find any reference to any policy on growth allowances in EPA guidance. None of the EPA’s major guidance documents, such as the *Water Quality Standards Handbook*,⁸⁰ *Guidance for Water Quality-Based Decisions: The TMDL Process*,⁸¹ or the *Technical Support Document for Water Quality-Based Toxics Control*,⁸² appears to address the issue of growth or growth allowances in any detail, if at all.

Perhaps the first significant public discussion of growth allowances appears in the EPA’s 1999 TMDL proposal and final 2000 regulation. In the proposal, the EPA expressly proposed to require the inclusion of “an allowance for future loading . . . account[s] for reasonably foreseeable increases in pollutant loads.”⁸³ But, in fact, there was little discussion. In its proposal, the EPA’s preamble contains a single paragraph on this issue that restates but does not explain the significance of the requirement.⁸⁴ The EPA subse-

77. Professor Houck’s review of existing TMDLs identified only a limited number of explicit “growth allowances.” See HOUCK, *supra* note 9, at app.C. In 1998, the EPA published the REPORT OF THE FEDERAL ADVISORY COMMITTEE ON THE TOTAL MAXIMUM DAILY LOAD PROGRAM, EPA 100-R-98-006 (July 1998). In describing the existing program, the report stated that “an *allocation for future growth* is not required . . .” *Id.* at 35. The report went on to recommend that “States should always consider including future growth in allocations, and document their decisions. The documentation should clearly explain to sources the implications of the growth allocation decision, especially if there is no allocation for growth.” *Id.*

78. 40 C.F.R. § 130.2(h) (2003) (emphasis added).

79. *Id.* § 130.2(g) (emphasis added).

80. WATER QUALITY STANDARDS HANDBOOK, *supra* note 38.

81. ENVTL. PROT. AGENCY, GUIDANCE FOR WATER QUALITY-BASED DECISIONS: THE TMDL PROCESS, EPA 440/4-91-001 (Apr. 1991).

82. TSD, *supra* note 48.

83. 1999 TMDL Proposal, 64 Fed. Reg. 46,012, 46,032 (proposed Aug. 23, 1999) (to be codified at 40 C.F.R. pt. 130) (proposing 40 C.F.R. § 130.33(b)(9)).

84. In its discussion of this proposal, the EPA noted that a state may “choose to completely allocate the pollutant loading for a waterbody and thus leave no loading for future growth.” *Id.* at 46,032. The

quently promulgated the requirement as part of its 2000 TMDL regulation.⁸⁵ In the brief discussion in the preamble, the EPA stated that it “believes accounting for any such potential increases is a necessary step in setting loads at a level necessary to implement standards and accordingly is authorized by § 303(d)(1)(c).”⁸⁶ Upon withdrawal of this regulation, we are back to the definitions of waste load allocation and load allocation as the basis for any policy of growth allowances.⁸⁷ In neither its proposal nor its final promulgation, however, did the EPA discuss the relationship between a new, express requirement for growth allowances and its past TMDL policy.

Even assuming that there is some express policy of encouraging growth allowances, there are numerous problems associated with implementing such a policy. How much of an available load should one reserve (and for whom)? Reservation of loads for future growth presumably reduces the load available to existing sources. In other words, existing sources pay more now to allow for some uncertain future growth. The EPA has stated that states may choose to ignore future growth and allocate the entire available load to existing sources. If, however, no allocation for future growth is made and future sources are required to “purchase” loads from existing sources through some offset program, the additional costs associated with growth are borne by the new or expanding discharger. The allocation of compliance costs between existing and new dischargers is an interesting issue that raises any number of difficult efficiency and equity questions. It is an issue that the EPA has not yet effectively addressed.⁸⁸

Aside from the questions of fairness that are inherent in the process, a growth allowance simply buys time. At some point the allowance is used up. At that point, what is the fate of new or expanded sources? We are either back to an iterative process of revised WLAs in which the state mandates further reductions from existing sources, or new or expanded dischargers must inevitably secure some form of offset from existing sources.

2. *The Prohibition on New Source Permitting*

If the issue of growth allowances and impaired waters is ambiguous, the EPA’s policy for implementation is even more confused. In some respects, the EPA’s policy on control of new sources is clear and dramatic. Under 40 C.F.R. § 122.4(i), first promulgated in 1983, no permit may be issued to “a new source or a new discharger” if its construction or operation will “cause

EPA did not discuss the implications for growth if a state did allocate all loading to existing sources.

85. The 2000 TMDL Regulation added a new 40 C.F.R. § 130.32(b)(10) that required states to include as a TMDL element an “allowance for future growth to account for reasonably foreseeable increases in pollutant loads.” 2000 TMDL Regulation, 65 Fed. Reg. 43,586, 43,624 (July 13, 2000) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, 130).

86. *Id.*

87. Following the 2003 withdrawal of this regulation, we are back to the definitions of wasteload allocation and load allocation as the basis for any policy of growth allowances. *See* 2003 Withdrawal, 68 Fed. Reg. 13,608 (Mar. 19, 2003) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, 130).

88. *See infra* notes 108-98 and accompanying text.

or contribute to the violation of water quality standards.”⁸⁹ The regulation expressly authorizes a new discharge into a water segment not meeting water quality standards if a load allocation for the pollutant to be discharged has been performed and (1) there are sufficient remaining load allocations to allow for the discharge, or (2) existing dischargers are “subject to compliance schedules designed to bring the segment into compliance with applicable water quality standards.”⁹⁰

On its face, this regulation would seem to prohibit the issuance of any NPDES permit to a new source of pollutants into waters not meeting water quality standards unless it could take advantage of an available, unused waste load allocation.⁹¹ Since there are many impaired waters and few waste load allocations, one might think that this provision would have stopped new source growth in its tracks.

Think again. It is difficult to find a single case or administrative decision in which an NPDES permit was denied to a new source because of this regulation. Indeed, prior to the late 1990s, it is hard to find any reference to this provision at all. The reasons are simple. First, neglect. For many years, the EPA simply ignored water quality standards issues in its effort to impose technology-based limits. No attention was given to water quality standards; no attention was given to new source prohibitions.

Second, it appears that the EPA has, in the past, construed this provision to allow issuance of permits in the absence of applicable TMDLs or waste load allocations. Indeed, in 1999, the EPA issued a proposal that specifically would have established new “offset” requirements for new or expanded discharges that would apply in the absence of approved TMDLs.⁹² This certainly seemed to imply that such discharges were authorized in the absence of a TMDL, and some commentators criticized the proposal on this ground.⁹³ When the EPA withdrew this proposal in 2003, the EPA seemed to acknowledge, with an air of surprise, that its long-established requirement in section 122.4(i) might already give it authority to address new dischargers even in the absence of an approved TMDL.

In 2003, however, several court decisions seemed to support a construction that section 122.4(i) prohibits new source permitting in the absence of approved TMDLs.⁹⁴ In *San Francisco Baykeeper v. Browner*,⁹⁵ for example,

89. 40 C.F.R. § 122.4(i) (2003).

90. *Id.*

91. It is important to note that section 122.4(i) addresses “new sources” and “new dischargers;” it does not, on its face, apply to expansion by existing sources. Thus, the relationship between expansion by existing dischargers and the EPA’s policy on attainment of water quality standards is even more obscure.

92. 1999 NPDES Proposal, *supra* note 14.

93. The EPA subsequently noted that some commentators argued that this provision would undercut a construction of section 122.4(i) as flatly prohibiting the issuance of permits to new sources or new dischargers on impaired waters. See 2000 TMDL Regulation, 65 Fed. Reg. 43,586, 43,640 (July 13, 2000) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, 130).

94. In a somewhat ambiguous 1996 decision, the court in *Sierra Club v. Hankinson*, 939 F. Supp. 872 (N.D. Ga. 1996), issued an order that essentially restated section 122.4(i). The court, among other things, ordered:

a citizen suit to compel the EPA to take certain actions to implement the water quality standards program, the court wrote:

Under the regulations to the CWA, there can be no “new source” or “new discharger,” if the discharge will contribute to a violation of water quality standards. Thus, there cannot be a new source or a new discharger if the waterbody is a WQLS impaired waterway *unless* the state completes a TMDL for that WQLS beforehand.⁹⁶

In *Friends of Wild Swan v. EPA*,⁹⁷ the Court of Appeals for the Ninth Circuit upheld a district court order that not only set a deadline for establishment of TMDLs for Montana waters but also prohibited the issuance of new discharge permits until Montana developed its TMDLs. In upholding this prohibition, the Ninth Circuit noted the EPA’s argument that the prohibition “interferes with the regulatory scheme, which does not require a complete ban on discharges in violation of state water quality standards.”⁹⁸ The Ninth Circuit was unimpressed, writing:

The district court’s order, however, does not impose a complete ban but only restricts the issuance of new permits or increased discharges for WQLSs, which are already in violation of state water quality standard. This comports with the regulatory requirement precluding issuance of new permits for new sources that will cause or contribute to a violation of water quality standards.⁹⁹

In support of its position, the EPA apparently cited to *Arkansas v. Oklahoma*,¹⁰⁰ in which the Supreme Court rejected the position that the CWA flatly prohibits the permitting of new sources on impaired waters. The case, as discussed below, is of little direct relevance to the issue of CWA requirements for TMDLs for discharges on impaired waters.¹⁰¹

EPA shall (or ensure that the State shall) comply with 40 CFR § 122.4(i) regarding the prohibition on new sources or new dischargers that will cause or contribute to a violation of water quality standards, requiring new permittees or new dischargers to demonstrate that there are sufficient load allocations to allow for the discharge and requiring that the existing dischargers into that segment are subject to compliance schedules designed to bring the WQLS into compliance with applicable water quality standards.

Id. at 874.

95. 147 F. Supp. 2d 991 (N.D. Cal. 2001).

96. *Id.* at 995 (citation omitted).

97. 74 Fed. Appx. 718, 2003 WL 21751849 (9th Cir. (Mont.) July 25, 2003).

98. *Id.* at 723-24.

99. *Id.* at 724.

100. 503 U.S. 91 (1992).

101. Among other things, the case dealt with “antidegradation” requirements; the Supreme Court never mentioned, let alone discussed, the role of TMDLs and section 122.4(i). Second, the case was based on aspects of a state’s water quality requirements for high quality waters that may not be an aspect of federally-mandated minimum requirements. Third, the Supreme Court’s opinion was based on a decision of the EPA’s Chief Judicial Officer that was, arguably, quite flawed. *See infra* notes 150-71 and accompanying text.

3. TMDLs, Waste Load Allocations, and Offsets

In 1999, the EPA, under the Clinton Administration, proposed far-reaching changes to the water quality standards program.¹⁰² Among those changes was a proposal to revise “antidegradation” requirements to establish an “offset” program for impaired waters.¹⁰³ The proposal, which would have applied only if there were no EPA-approved TMDLs in place, would have required a newly-defined class of “new dischargers” and a newly-defined class of “existing dischargers” that “significantly expand” to obtain offsets for their new discharges of pollutants of concern.¹⁰⁴ Each new pound of discharge would need to be offset by a reduction of one and one-half pounds of discharge from existing point or nonpoint sources.¹⁰⁵ This proposal would have allowed growth while still assuring “reasonable further progress” towards attainment of water quality goals.¹⁰⁶ In 2000, the same Clinton Administration abandoned the proposal.¹⁰⁷

This offset proposal and the EPA’s rationale for abandoning it raise important questions about growth and attainment of water quality standards.¹⁰⁸ First, it is remarkable that the proposal was limited to streams for which there were no approved TMDLs. The proposal, together with other proposed revisions to the TMDL program, would apparently rely exclusively on “growth allowances” to deal with new and expanded sources. It would be in the WLA process that a state would reserve loads sufficient to allow new growth. Reductions from existing sources necessary to achieve water quality standards would presumably be mandated by the state, not purchased by new sources.

As discussed above, however, reliance on growth allowances is problematic at best. In many ways, the only difference between an offset and a growth allowance is that with a growth allowance, the state mandates reductions from existing sources to accommodate growth; with offsets, the costs are borne by the new or expanded discharger who must presumably purchase the right to discharge from existing sources. The proposal is even more problematic since it encouraged but did not mandate a growth allowance. In other words, states were free to allocate all available loads to exist-

102. 1999 NPDES Proposal, *supra* note 14.

103. 2000 TMDL Regulation, *supra* note 14.

104. *Id.* at 43,638-40.

105. *Id.*

106. *Id.* at 43,638.

107. *Id.*

108. One question is why the EPA placed the offset requirement in its antidegradation policy. As discussed below, the antidegradation policy establishes requirements that limit the degradation of existing water quality and loss of existing uses. It does not require further improvement of existing water quality. The EPA’s offset proposal should logically have been placed with section 122.4(i) or in the EPA’s permit regulations in section 122.44. Placement of this requirement in the antidegradation requirements further confuses an already incoherent relationship between attainment and antidegradation. See *infra* notes 218-23 and accompanying text.

ing sources. The efficiency and fairness implications of this proposal deserve extended discussion.

Another fascinating aspect of the “offset” proposal was the rationale advanced by the EPA for abandoning it.¹⁰⁹ Most of the significant criticisms of the proposal related to the practical problems of implementing an enforceable program. The EPA largely ignored these concerns. Rather, in its explanation for why it was dropping the proposal, the EPA essentially stated that it was unnecessary.¹¹⁰ The EPA suddenly awakened to the existence of regulatory requirements that had been in place for twenty years and claimed that the existing program could assure attainment. The EPA cited to 40 C.F.R. § 122.44(d) that requires permits to contain conditions necessary to comply with water quality standards. The EPA discovered section 122.4(i) that prohibits, in some way, new discharges. The EPA stated that the offset proposal was unnecessary:

For those dischargers who would have been subject to the offset requirement, consistent implementation of §§ 122.44(d)(1)(vii) and 122.4(i) following existing EPA guidance would result in permits, if issued, containing limits and conditions for the pollutant(s) of concern that derive from and comply with applicable water quality standards. These limits and conditions are water quality-based effluent limits and, if derived in compliance with existing regulations, ensure that the discharge will not cause or contribute to a violation of water quality standards.¹¹¹

Dr. Pangloss is the new Administrator of the EPA. We have been living in the best of all possible worlds for all this time.

But the rationale gets better. According to the EPA, the primary change to past practice that needs to be implemented to address the problem of new or expanded dischargers is the use of actual ambient concentrations in calculating a WQBEL.¹¹² The use of actual ambient concentrations assures that a permit limit takes into account existing point and nonpoint sources. The EPA states that “[f]ailure to use a background value would result in evaluating the discharge to the nonattained water as if the water were actually attaining its water quality standards.”¹¹³ Use of background data apparently cures all and makes offsets unnecessary.

This argument lies somewhere between disingenuous and absurd. Of course permit writers need to consider actual ambient concentrations in assessing requirements for a new or expanded discharge. But that issue is simply irrelevant to the underlying question of what a permit writer is to do

109. 2000 TMDL Regulation, *supra* note 14, at 43,640-41.

110. *Id.*

111. *Id.* at 43,641.

112. *Id.*

113. *Id.*

when the existing conditions violate water quality standards. That is the issue addressed by offsets, and the EPA, in rejecting its own offset proposal, never confronts the reality that, on impaired waters, either new or expanded discharges must be prohibited or somebody has to reduce its existing discharge. There are many compelling practical problems with an offset requirement, but the EPA simply chose not to confront these problems. The EPA's actions leave the issue of offsets for another day.

*B. Growth and Maintenance of Water Quality:
The Antidegradation Provision*

The "antidegradation" provisions of the water quality standards program contain perhaps the most significant elements that directly address the issues of growth by new or expanded dischargers.¹¹⁴ Under EPA's regulations, all states are required to adopt a provision that limits the degradation of existing water uses or water quality, and this "antidegradation" provision inherently acts, if it acts at all, to impose limits on the ability of new or expanded point sources to introduce new pollutants into a water body.¹¹⁵ As the EPA has stated, however, "the antidegradation policy is significantly underused as a tool to attain and maintain water quality and plan for and channel important economic and social development that can impact water quality."¹¹⁶

114. The antidegradation provision is, under the EPA's regulations, a required part of a state's water quality standards. 40 C.F.R. §§ 131.6(d), 131.12. The EPA has stated:

Antidegradation was originally based on the spirit, intent, and goals of the Act, especially the clause ". . . restore and maintain the chemical, physical and biological integrity of the Nation's waters" (101(a)) and the provision of 303(a) that made water quality standards under prior law the "starting point" for CWA water quality requirements.

WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-1.

In *Ohio Valley Environmental Coalition v. Horinko*, 279 F. Supp. 2d 732 (S.D. W. Va. 2003), the court upheld an antidegradation provision that exempted existing sources from review. The court cited the EPA's *Water Quality Standards Handbook* that states that "new discharges or expansion of existing facilities would presumably lower water quality and would not be permissible unless the State conducts [tier 2 review]." WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-7. The handbook makes no reference to the application of the antidegradation policy to potential degradation from existing permitted discharges.

115. The EPA has been inconsistent in its statements regarding the application of the antidegradation provisions to "unregulated" activity such as nonpoint sources. In current guidance published as part of its *Water Quality Standards Handbook*, the EPA states that "[n]onpoint source activities are not exempt from the provisions of the antidegradation policy." WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, app.G at 6. In its 1998 ANPRM, the EPA states that "application of antidegradation requirements to activities that are otherwise unregulated under State, Tribal, and federal water law is not required by the federal water quality standards regulation." 1998 ANPRM, 63 Fed. Reg. 36,742, 36,780 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131). In *American Wildlands v. Browner*, 260 F.3d 1192, 1197 (10th Cir. 2001), the Tenth Circuit rejected challenges to the EPA's approval of a Montana antidegradation provision that excluded nonpoint sources. The court stated that, given the absence of authority to regulate nonpoint sources, the EPA's position was a "permissible construction" of the Act. *Id.* at 1198. Given the EPA's inconsistent approach to this issue and failure to adopt a formal regulatory position, it is questionable whether the EPA's interpretation is entitled to deference.

116. 1998 ANPRM, 63 Fed. Reg. 36,742, 36,780 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131).

The antidegradation provision is of certain provenance but uncertain meaning. First announced in 1966 by the Department of the Interior, the policy was later adopted by the EPA as a requirement of the water quality standards program under the 1972 CWA.¹¹⁷ In the 1987 amendments to the CWA, Congress revised section 303(d)(4)(B) to incorporate an antidegradation requirement for waters that “equal or exceed” the quality necessary to support designated uses.¹¹⁸

The antidegradation policy establishes a confusing set of limits on degradation of water quality.¹¹⁹ It is routinely characterized as establishing several “tiers” or classes of waters with varying limitations on the ability of new or expanded dischargers to degrade the quality of water in that tier.¹²⁰

117. See *id.* at 36,779; N. William Hines, *A Decade of Nondegradation Policy in Congress and the Courts: The Erratic Pursuit of Clean Air and Clean Water*, 62 IOWA L. REV. 643 (1977); Michael Snyder, Note, *Nondegradation of Water Quality: The Need for Effective Action*, 50 NOTRE DAME L. REV. 890 (1975).

The policy, as defined in 1968 by Secretary of the Interior Udall, provided:

Waters whose existing quality is better than the established standards as of the date on which such standards become effective will be maintained at their existing high quality. These and other waters of a State will not be lowered in water quality unless and until it has been affirmatively demonstrated to the State water pollution control agency and the Department of the Interior that such change is justifiable as a result of necessary economic or social development and will not interfere with or become injurious to any assigned uses made of, or presently possible in, such waters. This will require that any industrial, public or private project or development which would constitute a new source of pollution or an increased source of pollution to high quality waters will be required, as part of the initial project design, to provide the highest and best degree of waste treatment available under existing technology, and, since these are also Federal standards, these waste treatment requirements will be developed cooperatively.

1998 ANPRM, 63 Fed. Reg. at 36,779.

118. This section provides:

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.

33 U.S.C. § 1313(d)(4)(B) (2000).

119. A number of EPA documents are of particular relevance in describing the EPA’s policy on antidegradation. The *Water Quality Standards Handbook* contains an extended discussion on antidegradation in Chapter 4 and, in Appendix G, contains a separate document entitled “Questions and Answers on: Antidegradation.” WATER QUALITY STANDARDS HANDBOOK, *supra* note 38. These presumably represent current statements of EPA policy. Its 1998 ANPRM also contains a discussion of the EPA’s policies on antidegradation. 1998 ANPRM, 63 Fed. Reg. at 36,742.

In addition, EPA has published “Final Water Quality Guidance for the Great Lakes.” Final Water Quality Guidance for the Great Lakes System, 60 Fed. Reg. 15,366 (Mar. 23, 1995) (to be codified at 40 C.F.R. pts. 9, 122, 123, 131, 132) [hereinafter Great Lakes Guidance]. This guidance implements section 118(c)(2) of the CWA (as amended by the Great Lakes Critical Programs Act of 1990, Pub. L. No. 101-596, 104 Stat 3000 (1990)), which required the EPA to publish proposed and final water quality guidance on minimum water quality standards, antidegradation policies, and implementation procedures for the Great Lakes System. The Great Lakes Guidance contains thoughtful, detailed discussions of major issues affecting the antidegradation requirements of the CWA. By its own terms, the actual provisions of the Great Lakes Guidance are designed to deal with the unique problems of water quality in the Great Lakes. See Great Lakes Guidance, 60 Fed. Reg. at 15,369. Nonetheless, the EPA and the courts have cited to the Great Lakes Guidance in describing existing EPA policies.

120. See, e.g., WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-1.

“Tier 1” waters essentially include all waters with water quality at or below “fishable/swimmable” levels,¹²¹ and the policy requires that “existing uses” in these waters be maintained.¹²² In other words, the focus of Tier 1 requirements is the prevention of the loss of any existing *use* of water by the addition of new pollutants. Under EPA’s regulations, an “existing use” is one that “actually existed” on or after November 28, 1975.¹²³ The EPA states that this requirement establishes “the absolute floor of water quality in all waters of the United States.”¹²⁴ It applies a “minimum level of protection to all waters.”¹²⁵ The scope of protection afforded to existing uses is unclear but potentially quite broad.¹²⁶

“Tier 2” waters are those waters whose water quality exceeds fishable/swimmable levels. Tier 2 waters are essentially “high quality” waters.¹²⁷ The antidegradation provision prohibits the degradation of water *quality* in Tier 2 waters unless the state has gone through a public process and makes a determination that allowing lower water quality is “necessary to accommodate important economic or social development.”¹²⁸ Following this process, a state may elect to allow degradation of Tier 2 waters but only if it has otherwise assured that the achievement of “the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.”¹²⁹ Additionally, degradation may not be allowed in Tier 2 waters if it will result in the loss of an existing use.¹³⁰

121. *Id.*

122. 40 C.F.R. § 131.12(a)(1) (2003). Independent of the antidegradation provision, 40 C.F.R. § 131.10(h)(1) (2003) prohibits the loss of an existing use.

123. 40 C.F.R. § 131.3(e) (2003). This provision defines “existing uses” as “those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.” *Id.*

124. See WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-1.

125. *Id.* at 4-2.

126. Under the EPA’s antidegradation policy, existing uses must be protected even if not a part of the designated use. In its *Water Quality Standards Handbook*, the EPA states that even “subcategories” of fishable/swimmable water must be protected from loss. The EPA states:

The aquatic protection use is a broad category requiring further explanation. Non-aberrational resident species must be protected, even if not prevalent in number or importance. Water quality should be such that it results in no mortality and no significant growth or reproductive impairment of resident species. Any lowering of water quality below this full level of protection is not allowed.

Id. at 4-5.

Interpreted this broadly, the Tier 1 protections could significantly affect the ability of new or expanded dischargers to operate. Tier 1 protections, however, contain no mandatory public participation or documentation requirements, and it appears that its flat prohibition on loss of an existing use has not been a major component of the antidegradation process.

The EPA’s 1998 ANPRM contains an extended discussion of the possible approaches both to the designation and maintenance of existing uses. See 1998 ANPRM, 63 Fed. Reg. 36,742, 36,751-54, 36,781-82 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131).

127. WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-1.

128. 40 C.F.R. § 131.12(a)(2) (2003).

129. *Id.*

130. *Id.*

“Tier 3” waters are high quality waters that “constitute an outstanding National resource.”¹³¹ Hence, the term “outstanding national resources waters” (“ONRWs”).¹³² The regulation essentially prohibits any degradation of water quality in ONRWs.¹³³ One dirty little secret of the water quality standards program is that the EPA may not have authority to require states to designate waters as Tier 3 ONRWs.¹³⁴ Thus, the decision to designate and maintain Tier 3 protection is presumably a matter of state discretion. It is an “encouraged,” but apparently not required, aspect of the antidegradation policy.¹³⁵

These provisions are not entirely coherent. Degradation, but not loss of existing uses, is allowed in lower quality Tier 1 waters; degradation is prohibited in high quality Tier 2 waters unless economically or socially justified. No public process of review is required for degradation of Tier 1 waters; an elaborate public process is required prior to authorizing degradation of Tier 2 waters. Go figure.¹³⁶

Coherent or not, the antidegradation requirements establish potentially significant constraints on new or expanded discharges. The significance of these constraints hinge on a number of issues.

1. What Constitutes a Tier 2 High Quality Water?

Given its structure, much of the force of the antidegradation requirements follows from the classification of a stream segment. New or expanded dischargers into a Tier 1 water segment face only limited constraints under the antidegradation policy; new or expanded dischargers into Tier 2 waters, at least theoretically, should be subject to public review, public jus-

131. *Id.* § 131.12(a)(3) (2003).

132. The regulation describes ONRWs as “waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance.” *Id.*

133. In 1983, the EPA revised this provision to allow limited and temporary degradation of ONRWs. *See* 48 Fed. Reg. 51,400, 51,402-03 (Nov. 8, 1983).

134. At least as early as 1979, the EPA’s Office of General Counsel (“OGC”) had indicated doubts about the EPA’s authority to require designation of ONRWs. *See* Memorandum from James A. Rogers, Associate General Counsel, to Kenneth M. Mackenthum (Aug. 15, 1979). In a 1989 memorandum, the OGC continued to state that requiring states to adopt ONRWs would be “legally risky.” The memo stated:

In summary neither the 1983 rulemaking nor the subsequent guidance indicates to the public (or to OGC) that EPA intended the ONRW designation to be a mandatory one. Nor does the regulation clearly indicate the criteria for designation such that we could reliably defend a disapproval of a non-designation against a charge that we were being arbitrary and capricious. Since EPA is authorized to promulgate only where we find that a state standard does not meet the requirements of the act or that a new or revised standard is necessary to meet the requirements of the act, I believe that, absent regulatory change, EPA designation of an ONRW where a state failed to act would still be quite risky.

Memorandum from Catherine A. Winer, Attorney, EPA Water Division, to William Diamond, Director, EPA Criteria and Standards Division (Mar. 25, 1989).

135. This is not to say that the EPA has not imposed requirements on states that have designated waters as Tier III. *See, e.g.*, 62 Fed. Reg. 23,004 (Apr. 28, 1997) (stating that the EPA disapproved as inadequate Idaho limitations applicable to Tier III waters; federal provisions proposed).

136. *See infra* Section III.C. for a discussion of alternatives to the existing antidegradation provisions.

tification, and a state requirement to employ nonpoint source controls. What a difference a classification makes.

Unfortunately, the difference between Tier 1 and Tier 2 waters may, in many cases, be more metaphysical than biological. The antidegradation provision contemplates, for example, some class of waters that meet but do not exceed fishable/swimmable levels.¹³⁷ Further, a water segment may meet fishable/swimmable criteria for some pollutants but not for others. Under EPA guidance, a water body may be designated Tier 2 on a pollutant-by-pollutant basis, and therefore Tier 2 for some pollutants but not others.¹³⁸ Alternatively, the EPA allows states to make the determination on a “water body-by-water body” basis based on an assessment of a variety of indicators of water quality.¹³⁹ This is a “holistic approach” that presumably relies on the state’s gestalt of the water body.¹⁴⁰

The implications of the use of a “pollutant-by-pollutant” or “water body-by-water body” approach are quite significant. Under a “pollutant-by-pollutant” approach, a stream could presumably be treated as a Tier 2 high quality water even though the presence of some pollutants at levels exceeding criteria values limited its actual, observable use. Under the “water body-by-water body” approach, in contrast, a stream could be designated as Tier 1 even if its ambient pollutant concentrations were far better than the applicable criteria for a large number of pollutants.¹⁴¹ The EPA has stated that “EPA’s current thinking is that neither approach is clearly superior and that

137. In *Environmental Defense Fund, Inc. v. Tennessee Water Quality Control Board*, 660 S.W.2d 776 (Tenn. Ct. App. 1983), the court held that stringent Tier 2 review provisions did not apply because the “waters of the river now meet but do not exceed the levels set out in the criteria for each assigned use.” *Id.* at 783. Since the Tennessee antidegradation provisions applied only to water whose quality is better than existing standards, the provision did not apply in this case. *Id.*

138. The EPA has stated:

All parameters do *not* need to be better quality than the State’s ambient criteria for the water to be deemed a “high-quality water.” EPA believes that it is best to apply antidegradation on a parameter-by-parameter basis. Otherwise, there is potential for a large number of waters not to receive antidegradation protection . . .

WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-7.

139. The EPA describes the “pollutant-by-pollutant” options as follows:

Existing approaches for identifying high quality waters fall into two basic categories: (1) pollutant-by-pollutant approaches, and (2) water body-by-water body approaches. States and Tribes following the first approach determine whether water quality is better than applicable criteria for specific pollutants that would be affected by the proposed activity. Thus, available assimilative capacity for any given pollutant is always subject to tier 2 protection, regardless of whether the criteria for other pollutants are satisfied. Such determinations are made at the time of the antidegradation review (i.e., as activities that may degrade water quality are proposed).

1998 ANPRM, 63 Fed. Reg. 36,742, 36,782 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131).

140. The EPA has stated that the “water body-by-water body” approach “allows for a weighted assessment of chemical, physical, biological, and other information (e.g., unique ecological or scenic attributes).” *Id.* at 36,783.

141. Adding to the confusion, the EPA has stated that a “water body-by-water body” approach is generally only relevant to classification of a water body as Tier 2. Once the water body has been classified, the EPA states that a “pollutant-by-pollutant” approach should be followed in determining whether any individual discharge will cause “significant degradation.” *Id.* See *supra* notes 143-84 for a discussion of the significance of “significance.”

either, when properly implemented, is acceptable.”¹⁴² The EPA has, however, given limited guidance on “proper implementation.”

2. *What Constitutes Degradation of High Quality Waters for Purposes of Antidegradation Review?*

New or expanded dischargers into Tier 2 waters are subject to review and possible limitation if their discharges will “degrade” existing water quality.¹⁴³ No “degradation” means no antidegradation constraints. Thus, the definition of degradation is critical to the scope and stringency of the antidegradation provision.¹⁴⁴

The significance of a finding of “degradation” under the EPA’s antidegradation policy needs emphasis. A determination that a facility will cause “degradation” of a Tier 2 water is the “trigger” that launches antidegradation review. It does not, in itself, provide that a discharge is prohibited; it

142. 1998 ANPRM, 63 Fed. Reg. at 36,782.

143. In general, Tier 2 antidegradation review is triggered by a finding of “degradation,” and courts have not been receptive to state antidegradation provisions that excluded classes of discharges from application of Tier 2 review for reasons other than their impact on water quality. In *Ohio Valley Environmental Coalition v. Horinko*, 279 F. Supp. 2d 732 (S.D. W. Va. 2003), for example, the court reviewed numerous challenges to the EPA’s approval of West Virginia antidegradation provisions that would have exempted certain types of discharges from Tier 2 review. Among other things:

- The court rejected West Virginia provisions that would have exempted certain existing municipal sewage treatment plants from antidegradation review if, notwithstanding their expansion, there were a “net decrease in the overall pollutant loading.” The court construed this provision to exempt the facility from antidegradation review if it increased the discharge of one pollutant as long as it decreased its discharge of a different pollutant. The court held that the EPA’s approval of this provision was arbitrary and capricious. *Id.* at 752-57.
- The court, on the record before it, also rejected the EPA’s approval of a provision that would exempt individual discharges, otherwise subject to a general permit, from specific antidegradation review. *Id.* at 757-62.
- The court rejected the EPA’s approval of a provision that would have allowed the Secretary of the West Virginia Department of Environmental Protection from authorizing case-by-case exemptions from Tier 2 antidegradation review. Since the provision did not require EPA review and approval of such an exemption, the court rejected the EPA’s position that this exemption simply constituted an exercise of the state’s authority to revise its antidegradation requirements. *Id.* at 763-65.
- The court rejected the EPA’s approval of a provision that stated that Tier 2 review “generally” applied to waters exceeding the minimal quality necessary to support fishable/swimmable uses. The court was unable to find a rationale in the English language for the EPA’s position that the word “generally” meant “always.” *Id.* at 765-66.

144. In *Ex parte Fowl River Protective Ass’n v. Board of Water & Sewer Commissioners of Mobile*, 572 So. 2d 446 (Ala. 1990), the Alabama Supreme Court rejected an agency interpretation of the Alabama antidegradation provision that apparently would have applied antidegradation requirements only to waters with quality better than the public drinking water supply. *Id.* This would have the effect of essentially avoiding application of the antidegradation provisions to any state waters. Notwithstanding what the agency had actually said, the agency argued to the court that, in fact, it intended only to limit Tier 2 review to waters with quality better than required for a public drinking water supply. *Id.* The court rejected this interpretation as well, since, among other things, this was not the basis for the agency’s action. *Id.* Even this alternative argument by the state agency clearly violates the federal policy that requires Tier 2 review for waters that exceed “fishable/swimmable,” not public drinking water, standards.

does not, in itself, establish a substantive standard of control. Those questions are answered in the context of the antidegradation review process that should involve an assessment of, among other things, whether the proposed discharge is justified by “important” economic and social factors.¹⁴⁵

The meaning of degradation in this context is not obvious.¹⁴⁶ In some sense, any addition of any new pollutant to a water body degrades existing quality. A focus on such technical or hypothetical degradation would essentially subject all new or expanded sources to antidegradation review. Alternatively, degradation might refer to discharges that result in detectable or calculable increases in pollutant concentrations. Such a definition would narrow the scope of review but potentially allow cumulative, small increases of pollutants, none of which is subject to review. Lastly, degradation, for purposes of antidegradation review, could be limited to some class of “significant” increases in pollutants. This would focus the costs and constraints of antidegradation review on the larger and more significant sources.

EPA’s antidegradation regulation itself does not define what constitutes degradation of water quality. Although not stated in its regulation, the EPA apparently allows states to limit Tier 2 review to activities that result in “significant” degradation. The EPA, in its 1998 ANPRM, stated that it has approved state antidegradation provisions that limit review to “significant” degradation.¹⁴⁷ Not only does the EPA allow such a limitation, the ANPRM goes on to state that “[a]pplying antidegradation requirements only to activities that will result in significant degradation is a useful approach that allows States and Tribes to focus limited resources where they may result in the greatest environmental protection.”¹⁴⁸

The EPA has not fully explained the legal basis for this interpretation of its antidegradation provision. In one case, the EPA took the position that exempting non-significant or “de minimis” discharges from antidegradation review was justified under general administrative law principles that allow agencies to establish de minimis exceptions to otherwise applicable legal requirements.¹⁴⁹ One might think, given the history and significance of the antidegradation program, that a justification for substantially limiting its scope would warrant more assessment.

Case law on the scope of antidegradation review is confused. The dispute culminating in the Supreme Court opinion in *Arkansas v. Oklahoma*¹⁵⁰ is interesting and perhaps instructive on this issue. The dispute involved the

145. See *infra* notes 198-208 and accompanying text.

146. The proposed Great Lakes Guidance has perhaps the most extended discussion that the EPA has published regarding the various ways in which to characterize or define degradation. See Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20,802, 20,886-88 (Apr. 16, 1993).

147. Water Quality Standards Regulation, 63 Fed. Reg. 36,742, 36,783 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131).

148. *Id.*

149. *Ohio Valley Env'tl. Coalition v. Horinko*, 279 F. Supp. 2d 732, 767-68 (S.D. W. Va. 2003).

150. 503 U.S. 91 (1992).

issuance by the EPA of an NPDES permit to a facility in Arkansas. The discharge by the Arkansas facility would potentially affect a river in Oklahoma that had been designated as a “scenic” river, and under Oklahoma water quality standards, “no degradation” of such a river was allowed. An aspect of the dispute involved whether the discharge would violate this provision. It is important to distinguish two different issues raised by these facts. First, there is the question of whether the provision is applicable at all; presumably the provision applies only if there is a finding that a discharge might cause “degradation.” This is the issue that is of greatest relevance to understanding the EPA’s national antidegradation policy. Remember, no “degradation,” no review. Second, there is the issue of whether the Oklahoma provision requires prohibition of any discharge once there is a finding that a discharge might cause degradation. The Oklahoma regulation apparently treated the river as a Tier 3 ONRW for which no degradation could be allowed. An issue on the application of the Tier 3 prohibition would be interesting, but of limited significance, if the ONRW classification is not mandated by federal law. These issues were confused in the subsequent proceedings.

The dispute arose in the context of a challenge to the EPA’s issuance of the permit. Following an evidentiary hearing before an EPA Administrative Law Judge (“ALJ”), the ALJ authorized the permit and held that, with respect to interstate waters, a discharge was prohibited only if it would have “undue impact” on an adjacent state’s waters.

On appeal to EPA’s Environmental Appeals Board (“EAB”), the Chief Judicial Officer (CJO) rejected this legal standard and made several interesting rulings.¹⁵¹ First, the CJO wrote that state water quality standards must be strictly enforced; no lesser standard of “undue impact” applied because of the interstate effect of the discharge.¹⁵² Second, regarding compliance with Oklahoma’s antidegradation provision, the CJO wrote:

Nonetheless, mere theoretical impairment of Oklahoma’s water quality standards—i.e., an infinitesimal impairment predicted through modeling but not expected to be actually detectable or measurable—should not by itself block the issuance of the permit. In this case, the permit should be upheld if the record shows by a preponderance of the evidence that the authorized discharges would not cause an actual *detectable* violation of Oklahoma’s water quality standards.¹⁵³

Finally, the CJO went on to state that a standard of “detectable or measurable” violation did not justify a conclusion that only “significant” changes

151. *In re* City of Fayetteville, 2 E.A.D. 594 (1988).

152. *Id.* at 600.

153. *Id.* at 601.

to water quality constitute degradation.¹⁵⁴ Rather, the CJO wrote that “[t]he showing that must be made here implies neither a reasonableness standard nor a significance test, but instead is directed at the quantity and quality of the evidence relating to whether a violation would occur.”¹⁵⁵

It is hard to know exactly what to make of the CJO’s opinion. First, the opinion seems limited to the issue of whether Oklahoma’s antidegradation provision prohibited the issuance of a permit to a new source; it did not directly address the issue of the standard for triggering “antidegradation review.” In the context of the prohibition, the opinion seems to clearly imply that “degradation” does not arise merely because the addition of some new pollutants has a theoretical effect on water quality. Additionally, it seemingly rejects the view that degradation exists only when there is some “significant,” as opposed to *de minimis*, impact.

Although the CJO may be correct in his interpretation of “degradation” in this context, the analysis in the opinion is seriously flawed. In support of his conclusion that only “detectable” increases constitute degradation, the CJO wrote in a footnote that “[t]he element of detectability is implied in EPA’s regulations, which specify the conditions that must appear in an NPDES permit.”¹⁵⁶ The footnote went on to cite EPA regulations and case law that indicated that there must be some method of “measuring compliance” in order to make permit conditions enforceable.¹⁵⁷

But these references are clearly inapplicable to the issue before the EAB. The CJO might have evaluated the EPA’s (or Oklahoma’s) Tier 2 or Tier 3 antidegradation regulations and concluded that they apply only upon a showing of detectable degradation of water quality. But that was not what the CJO did. Rather, he based his conclusion on *NPDES permit regulations* that require that permit conditions include a means of ensuring detectable or measurable violations.¹⁵⁸ Those permit regulations are, however, largely irrelevant to the question of when the antidegradation provisions are triggered by a finding of degradation or whether, once triggered, they prohibit the issuance of an NPDES permit. It is one thing to say that permit limitations must contain conditions that allow measurable enforcement; it is quite another thing to say that antidegradation review (and possible prohibition of new or expanded dischargers) is not required unless there is a detectable increase in pollutants in the water body. If antidegradation review is triggered and an NPDES permit is denied, there is no issue of subsequent enforcement of permit conditions. This is not to say that a standard of “no degradation” is violated by hypothetical or undetectable increases in ambient levels of pollutants; it is to say that the CJO’s analysis simply does adequately address this issue.

154. *Id.*

155. *Id.*

156. *Id.* at n.16.

157. *Id.*

158. *Id.* at 603.

On appeal, the Tenth Circuit rejected the EPA's position and crafted its own interpretation.¹⁵⁹ Although not argued by any party, the Tenth Circuit held that the CWA prohibits the issuance of an NPDES permit to a new discharge that would reach waters that were already in violation of existing water quality standards.¹⁶⁰ In other words, the Tenth Circuit prohibited new or expanded discharges into impaired waters. The court cited essentially nothing, other than its incredulity that Congress could have intended, given the "all-encompassing" program of the CWA, to allow such a result.¹⁶¹ The Tenth Circuit made an additional, critical point. The court agreed that "there must be an initial, detectable change in the water quality of a particular body of water for that water to qualify as 'degraded.'"¹⁶² Once this detectable change was found, however, the court would thereafter prohibit the discharge of pollutants by a source.¹⁶³

Thus, the court seemed to say that the Oklahoma antidegradation provision does not apply unless there is a detectable change in stream quality, but, once it applies, it prohibits undetectable discharges. It is hard to know what to make of this. If antidegradation review is not triggered in the absence of a detectable change, what is the significance of thereafter prohibiting undetectable discharges? The court seemed to confuse some abstract state of "degraded" water from the finding that a particular source will cause "degradation."

The Supreme Court, in *Arkansas v. Oklahoma*,¹⁶⁴ reversed the Tenth Circuit and expressly upheld the position of the CJO. The Court rejected the Tenth Circuit's position that the CWA contained a categorical ban on new discharges to impaired waters. Rather than announcing its interpretation of the requirements of the CWA, the Supreme Court relied on principles of judicial deference to uphold the agency's decision.¹⁶⁵ The Court characterized the CJO ruling as stating "that the Oklahoma standards—which require

159. *Oklahoma v. EPA*, 908 F.2d 595 (10th Cir. 1990).

160. *Id.* at 632.

161. The court wrote:

Congress cannot reasonably be presumed to have intended to exclude from the CWA's "all-encompassing program," . . . a permitting decision arising in circumstances such as those of this case. It is even more unfathomable that Congress fashioned a "*comprehensive* . . . policy for the *elimination* of water pollution," . . . which sanctions continued pollution once minimum water quality standards have been transgressed. More likely, Congress simply never contemplated that EPA or a state would consider it permissible to authorize further pollution under such circumstances. We will not ascribe to the Act either the gaping loophole or the irrational purpose necessary to uphold EPA's action in this case.

Id. (citations omitted).

162. *Id.*

163. *Id.* at 633.

164. 503 U.S. 91 (1992).

165. The Supreme Court stated, "Because we recognize that, at least insofar as they affect the issuance of a permit in another State, the Oklahoma standards have a federal character, the EPA's reasonable, consistently held interpretation of those standards is entitled to substantial deference." *Id.* at 110. The Court cited to *INS v. National Center for Immigrants' Rights*, 502 U.S. 183, 189-90 (1991), and *Chevron U.S.A. v. Natural Resources Defense Council*, 467 U.S. 837 (1984), in support of this proposition. *Id.* The EPA's interpretation of state water quality standards is, thus, presumably subject to *Chevron* deference, whatever that means. See *infra* note 171.

that there be 'no degradation' of the upper Illinois River—would only be violated if the discharge effected an 'actually detectable or measurable' change in water quality."¹⁶⁶ The Court stated that "[t]his interpretation . . . is certainly reasonable and consistent with the purposes and principles of the Clean Water Act."¹⁶⁷ The Court went on to note, approvingly, the CJO's position that "unless there is some method for measuring compliance, there is no way to ensure compliance."¹⁶⁸

What can we infer from the CJO, Tenth Circuit, and Supreme Court opinions in this case? At a minimum, these opinions are consistent with a conclusion that antidegradation review is not triggered by a miniscule or hypothetical decrease in water quality. The Supreme Court certainly did not reject the Tenth Circuit's position that antidegradation review was only required upon a showing of a "detectable" change in water quality. Indeed, the Ohio Supreme Court concluded that "a careful reading of [*Arkansas v. Oklahoma*] reveals that the Supreme Court did not disagree with the perceptible change standard."¹⁶⁹

The opinions, however, say nothing about the legitimacy of the EPA's apparent position that antidegradation review can be limited to discharges that cause "significant degradation." Indeed the CJO's opinion in the *Arkansas v. Oklahoma* dispute suggests otherwise.¹⁷⁰ Further, since the Supreme Court relied on principles of administrative deference to uphold the agency's position, the EPA's failure to adopt a policy of "significant degradation" in a binding administrative process raises questions about the extent of deference that would be applied to its apparent position.¹⁷¹

3. How Significant Is Significant?

Although the EPA apparently authorizes a "significant degradation" approach, the EPA has not defined how a significance test is to be applied.¹⁷²

166. *Arkansas*, 503 U.S. at 110-11.

167. *Id.* at 111.

168. *Id.* The Court indicated that this construction was particularly appropriate in the interstate context since it limited a state's ability to hold an effective veto over upstream discharges.

169. *Columbus & Franklin County Metro. Park Dist. v. Shank*, 600 N.E.2d 1042, 1055 n.16 (Ohio 1992). The Ohio court went on to conclude that a finding of "perceptible change" did trigger the federal antidegradation review provisions for Tier 2 waters. *See infra* notes 174-77 and accompanying text.

170. *Arkansas*, 503 U.S. 91.

171. There is considerable debate over what types of agency determinations are subject to *Chevron* deference and what type of deference is applicable if *Chevron* does not apply. *See Christensen v. Harris County*, 529 U.S. 576 (2000) (limiting application of *Chevron* deference to agency actions having the force of law). *See generally* Thomas W. Merrill & Kristen E. Hickman, *Chevron's Domain*, 63 GEO. L.J. 833 (2001).

172. *See supra* notes 147-49 and accompanying text. The EPA has stated specifically that "[t]he current regulation does not specify a significance threshold below which an antidegradation review would not be required." Water Quality Standards Regulation, 63 Fed. Reg. 36,742, 36,783 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131). Note, however, that the CJO's opinion in the *Arkansas v. Oklahoma* dispute seemed to reject an interpretation of "degradation" that was limited to "significant degradation." *See supra* note 151 and accompanying text.

In other words, the EPA has never said what level of water quality impact mandates Tier 2 review under the federal antidegradation policy.¹⁷³

Courts have begun to address the issues associated with limiting the scope of antidegradation review to “significant” or “non de minimis” discharges. In some cases, the courts seem to have rejected a standard of “significant degradation” and required antidegradation on a showing of a “detectable” or “perceptible” change in water quality. In *Columbus & Franklin County Metropolitan Park District v. Shank*,¹⁷⁴ the Ohio Supreme Court rejected an argument that Ohio antidegradation review was triggered only if a new discharge would result in the loss of an existing use.¹⁷⁵ Essentially applying federal Tier 2 review requirements, the court apparently held that review was triggered by a finding of any “perceptible” change in water quality.¹⁷⁶ Thus, the court would not require review upon the addition of any pollutants that resulted in a hypothetical change to water quality, but rather only upon some detectible or quantifiable impact from the proposed discharge.¹⁷⁷ The court did not consider, however, whether a policy that limited review to “significant” degradation, short of loss of an existing use, would be authorized.

Other courts have accepted some limitation of antidegradation review to discharges causing only “significant” degradation. Courts, however, have not given a free hand to a determination of significance. In *Ohio Valley Environmental Coalition v. Horinko*,¹⁷⁸ the court reviewed certain West Virginia water quality provisions that limited antidegradation review to “significant” activities. Under these provisions, an individual activity was deemed significant if it would use 10% or more of the remaining assimilative capacity for the pollutant of concern.¹⁷⁹ Additionally, the proposed activity was deemed “significant” if the “cumulative” effect of the proposed activity together with “all other activities allowed after the baseline water quality is established” would result in a reduction of 20% or more of the remaining assimilative capacity.¹⁸⁰

The court upheld the general approach of exempting de minimis discharges from antidegradation review.¹⁸¹ In reaching this conclusion, the

173. See Great Lakes Guidance, 60 Fed. Reg. 15,366 (Mar. 23, 1995) (to be codified at 40 C.F.R. pts. 9, 122, 123, 131, 132).

174. 600 N.E.2d 1042 (Ohio Com. Pl. 1992).

175. *Id.* at 1054.

176. *Id.* at 1055.

177. Some language in the opinion, however, does suggest that the court would require antidegradation review if there were any addition of pollutants. Although the court apparently concurred with the lower court's use of a standard of “perceptible change” and cited with approval the “detectible change” standard from the Tenth Circuit opinion in *Oklahoma v. EPA*, the court expressly concluded that “[t]he ‘degradation’ of high quality waters within the meaning of Ohio Adm[in]. Code 3745-1-05 occurs whenever the permitted activity increases the amount of pollutants.” *Id.* at 1057. Presumably, the court intended this to refer to a perceptible increase.

178. 279 F. Supp. 2d 732 (S.D. W. Va. 2003).

179. *Id.* at 767.

180. *Id.*

181. *Id.* at 769.

court largely relied on the EPA's statements in the 1998 ANPRM in which the agency generally endorsed the concept of significant degradation.¹⁸² The court also upheld the 10% standard for individual discharges.¹⁸³ The court noted that this was generally consistent with a policy the EPA had adopted for antidegradation review in the Great Lakes.¹⁸⁴ Although there were significant differences between the West Virginia and Great Lakes policies, the court nonetheless deferred to the EPA's position.¹⁸⁵

The court, however, gave no deference to the EPA's justification for accepting the 20% cumulative de minimis standard.¹⁸⁶ No deference was warranted since the EPA apparently had nothing in the record to support its decision.¹⁸⁷ Industry intervenors argued, based on some provisions of the Great Lakes Guidance, that the 20% standard must be acceptable since, under the 10% standard, individual dischargers could presumably, cumulatively, exhaust 90% of a water body's assimilative capacity.¹⁸⁸ The court stated that, if indeed the Great Lakes policy did stand for that proposition, it "would reject that standard out of hand."¹⁸⁹ Intervenors also sought to rely on the EPA's approval of a Colorado antidegradation provision that exempted de minimis discharges that would "consume, after mixing, less than 15 percent of the baseline available increment, provided that the cumulative increase in concentration from all sources shall not exceed 15 percent of the baseline available increment."¹⁹⁰ The court found that the EPA's approval of the 15% provision in Colorado did not support approval of the 20% provision in West Virginia.¹⁹¹ Noting potentially significant differences between the two requirements, the court also stated that "fifteen percent is, obviously, a lower figure than twenty percent. It remains the case that even if fifteen percent is an acceptable figure, no party has offered evidence as to why twenty percent is also an acceptable figure."¹⁹²

In *Rivers Unlimited v. Schregardus*,¹⁹³ the Ohio Supreme Court considered a provision of the Ohio antidegradation provisions that would have allowed allocation to "existing sources" of up to 80% of the available assimilative capacity of high quality waters, as determined by appropriate

182. *Id.*; see also 1998 ANPRM, 63 Fed. Reg. 36,742 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131).

183. *Horinko*, 279 F. Supp. 2d at 770.

184. See *supra* note 117 for a discussion of the Great Lakes Guidance.

185. *Horinko*, 279 F. Supp. 2d at 770-74.

186. *Id.* at 772.

187. *Id.* at 772 & n.33.

188. *Id.* at 771.

189. *Id.* The court went on to state: "It is hard to imagine how § 131.12(a)(2)'s command that 'water quality shall be maintained and protected' would be satisfied by a provision that permitted a reduction in water quality of as much as ninety percent of a water body's available assimilative capacity for any given pollutant." *Id.*

190. *Id.* at 772.

191. *Id.*

192. *Id.*

193. 685 N.E.2d 603 (Ohio Com. Pl. 1997).

TMDL procedures, without “further antidegradation review.”¹⁹⁴ New sources would be subject to antidegradation requirements if their discharge would result in a 10% or greater change in “ambient water quality.”¹⁹⁵ The court concluded that allowing existing sources to degrade up to 80% of the assimilative capacity without ensuring public participation conflicts with the federal antidegradation requirement.¹⁹⁶

Thus, the EPA and the courts seem willing to limit antidegradation review, and all that it implies, to discharges that will result in significant degradation. What level of impact constitutes “significant” degradation remains to be resolved. Even more significant, the question of “cumulative” impacts lurks as the critical issue in this area. If “insignificant” discharges can be exempt from review, what stops significant degradation from occurring from numerous, unreviewed acts of insignificant degradation?

4. *When Is Degradation Allowed?*

A finding of “significant degradation” of Tier 2 water triggers a process, not a result. If a new or expanded discharge will result in significant degradation of a Tier 2 water, the antidegradation policy may still allow the discharge if a number of conditions are satisfied.¹⁹⁷ The EPA has described these provisions as authorizing degradation “only in a few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that required for ‘fishable/swimmable’ water, and both cannot be achieved.”¹⁹⁸ In practice, degradation under this provision appears to be something other than “extraordinary.”

First, and perhaps of greatest significance, the antidegradation requirements contemplate a process of public participation.¹⁹⁹ At a minimum, this apparently requires the state to provide some opportunity for a public hearing on the proposed discharges.²⁰⁰ Nothing is more frightening or expensive to a discharger than the prospect of a public hearing.

194. *Id.* at 610.

195. *Id.*

196. *Id.* at 613.

197. The antidegradation policy may allow some degradation of high quality waters, but it flatly prohibits degradation that will result in loss of an existing use. 40 C.F.R. § 131.12(a)(2) (2003). In *Ex parte Fowl River Protective Assoc.*, 572 So. 2d 446 (Ala. 1990), the Alabama Supreme Court expressly held that Alabama antidegradation provisions, equivalent to the federal policy, did not authorize elimination of an existing use based on a showing of necessity.

198. WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-7.

199. 40 C.F.R. § 131.12(a)(2) requires “full satisfaction of the intergovernmental coordination and public participation provisions of the State’s continuing planning process” as a prerequisite to allowing degradation of Tier 2 waters. As the court noted in *Columbus & Franklin County Metropolitan Park District v. Shank*, 600 N.E.2d 1042 (Ohio 1992), “federal law requires these procedural safeguards before degradation may be permitted.” *Id.* at 1055.

200. The EPA has described how the public participation requirements may be satisfied:

This requirement may be satisfied in several ways. The State may obviously hold a public hearing or hearings. The State may also satisfy the requirement by providing the opportunity for the public to request a hearing. Activities which may affect several water bodies in a river

Additionally, the antidegradation policy requires that a state determine that any degradation is “necessary to accommodate important economic or social development.”²⁰¹ This phrase has a number of components.²⁰² First, degradation must be “necessary.”²⁰³ This, in part, means that degradation may not be allowed if the proposed new or expanded discharge can be effectively controlled by “reasonable” pollution control techniques.²⁰⁴ This presumably includes some assessment of alternatives that will minimize or eliminate the discharge. The EPA apparently does not require states to adopt BMP controls over nonpoint sources in order to justify that degradation is necessary.²⁰⁵

basin or sub-basin may be considered in a single hearing. To ease the resource burden on both the State and public, standards issues may be combined with hearings on environmental impact statements, water management plans, or permits. However, if this is done, the public must be clearly informed that possible changes in water quality standards are being considered along with other activities. In other words, it is inconsistent with the water quality standards regulation to “back-door” changes in standards through actions on EIS’s, wasteload allocations, plans, or permits.

WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, app.G at 10.

In *Rivers Unlimited v. Schregardus*, 685 N.E.2d 603 (Ohio Com. Pl. 1997), the court discussed some of the elements of public participation required by the EPA’s antidegradation requirements. In *Save the Lake v. Schregardus*, 752 N.E.2d 295 (Ohio Ct. App. 2001), the court rejected claims that Ohio failed to follow necessary public participation requirements in an antidegradation review. The Ohio antidegradation provisions themselves established specific public notice and public hearing requirements, and the issues, as addressed by the court, largely involved questions of whether the process satisfied these Ohio, rather than federal, requirements.

201. WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-8.

202. The EPA’s Interim Economic Guidance describes the process as follows:

When performing an antidegradation analysis, the first question is whether the cost of the pollution controls needed to maintain the high-quality water will interfere with development. If not, then lower water quality is *not* “necessary” for the development to take place. If, on the other hand, the costs will interfere with the development and lower water quality is “necessary” for the development to take place, then the analysis must show that the development would be an important economic and social development.

ENV’T’L PROT. AGENCY, INTERIM ECONOMIC GUIDANCE FOR WATER QUALITY STANDARDS WORKBOOK 1-6 to 1-7 (1995) (hereinafter INTERIM ECONOMIC GUIDANCE).

203. 40 C.F.R. § 131.12(a)(2) (2003).

204. In its 1998 ANPRM, the EPA discussed satisfaction of a showing of “necessity”:

An approach that has been recommended by EPA is to require the proponent of the proposed activity to develop an analysis of pollution control/pollution prevention alternatives. In conducting its antidegradation review, the State or Tribe then ensures that all feasible alternatives to allowing the degradation have been adequately evaluated, and that the least degrading reasonable alternative is implemented. Also, note that where less-degrading alternatives are more costly than the pollution controls associated with the proposal, the State or Tribe should determine whether the costs of the less-degrading alternative are reasonable.

1998 ANPRM, 63 Fed. Reg. 36,742, 36,784 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131).

In *Shank*, the court held that justification of degradation under Tier 2 review required extensive analysis of the feasibility of alternatives to a proposed discharge. *Columbus & Franklin County Metro. Park Dist. v. Shank*, 600 N.E.2d 1042, 1058 (Ohio 1992). The court, however, stated that this requirement was part of a showing of the “economic and social” impacts of the discharge, not a part of a showing of “necessity.” *Id.*

205 In its *Water Quality Standards Handbook*, the EPA states that point source degradation is unnecessary “if it could be partially or completely prevented through implementation of existing State-required BMPs.” WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-8. In context, the reference to “state-required BMPs” indicates that the EPA does not view the antidegradation policy as a tool for forcing states to adopt nonpoint source controls. See *infra* note 216 and accompanying text.

Additionally, degradation must be necessary in order to accommodate “important economic or social development.”²⁰⁶ The EPA has never fully articulated either the elements that must be included in an evaluation of “economic and social development”²⁰⁷ or the substantive limitation, if any, that this standard imposes on authorizing degradation.²⁰⁸ In 1995, the EPA published *Interim Economic Guidance* relevant in making an antidegradation justification, and in that document, the EPA stated:

The use of the term “important” communicates a general sense of the level of economic and social development. This provision is intended to permit degradation of high-quality water bodies in only a few extraordinary cases where the benefits of the economic or social development unquestionably outweigh the costs of lowering water quality.²⁰⁹

In this *Interim Guidance*, the EPA identified factors that should be considered in evaluating the economic consequences associated with a proposed discharge.²¹⁰

This *Interim Economic Guidance* establishes a framework for evaluating the costs and justifications for several water quality standards programs, including antidegradation review. The *Interim Economic Guidance*’s greatest detail comes in its description of a process for calculating the costs of pollution control requirements necessary to comply with antidegradation requirements. The document also provides information about the type of information that may be relevant in assessing important economic or social development, but little is said about determining whether economic or social

206. 40 C.F.R. § 131.12(a)(2) (2003).

207. *Id.*

208. In *Shank*, the Ohio Supreme Court identified several factors that were relevant for an “economic/social” assessment. These included an assessment of alternative control strategies and the impact, and benefits, of a proposed discharge not only on the local area but also the “greater community.” *Shank*, 600 N.E.2d at 1058. Indeed the court seemed to use the “economic and social” assessment as a vehicle to encourage centralized waste treatment systems. *Id.* In *Save the Lake v. Schregardus*, 752 N.E.2d 295 (Ohio Ct. App. 2001), an Ohio appeals court reviewed the adequacy of “social-economic report” prepared by the Ohio EPA in connection with an antidegradation review of proposed permits. The court noted that the Ohio regulations, cited by the Ohio Supreme Court in *Shank*, required consideration of thirteen factors, “including the cost-effectiveness and technical feasibility of nondegradation alternatives, the reliability of the preferred alternative, and the condition of the local economy.” *Id.* at 307 (citing OHIO ADMIN. CODE 3745-1-05(c)(6)(a)-(m)). The court held that the record supported the conclusions made by the agency. *Id.*

In *In re Petition of Town of Sherburne*, 581 A.2d 274 (Vt. 1990), the Vermont Supreme Court held that the Vermont Water Resources Board had properly justified, under the state’s then-existing antidegradation provision, its decision to reclassify certain waters. This reclassification was made to support the development of clustered, rather than scattered, regional development. The court concluded that the board “believed that any lowering of quality that might ensue from a reclassification would be justified as necessary to accommodate important public development goals.” *Id.* at 281.

209. INTERIM ECONOMIC GUIDANCE, *supra* note 202, at 1-3 to 1-4.

210. The EPA states that the intent of the *Interim Economic Guidance* is to “point States and dischargers in the right direction. It does not give definitive answers as to whether or not an entity has demonstrated substantial, widespread, or important economic and social impacts.” *Id.* at 1-2.

development justifies degradation. In its 1998 ANPRM, however, the EPA stated that “current thinking is that determining the social and economic importance of a proposed activity is an important public question best addressed by State, Tribal or local interests.”²¹¹

Finally, degradation may be allowed only if the state shall assure that “there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.”²¹² Overlooking the oddly ambiguous use of passive voice in this phrase, the phrase seems to establish minimum requirements for control of both point and nonpoint sources.

The standard for new and existing point sources seems, at a minimum, to require that the state have implemented required technology-based effluent limitations for point sources. The EPA has indicated that this phrase does not impose any new or additional requirements for point sources but simply requires effective implementation of existing requirements.²¹³ At least one court, however, has held that this provision imposes a new substantive standard of control. In *Columbus & Franklin City Metropolitan Park District v. Shank*,²¹⁴ the court held that, under the antidegradation provisions, a new facility would be required to meet effluent limitations, developed on a case-by-case basis, equivalent to that which would be required as “new-source performance standards.”²¹⁵ Thus, in this view, the antidegradation provision would operate as a significant source of mandated effluent limitations.

Additionally, the provision implies that new or expanded discharges are prohibited unless the state has implemented BMPs for nonpoint sources. This interpretation would make the antidegradation policy a major tool for forcing states to adopt nonpoint source controls that are otherwise not required under the CWA. However clear the implication, the reality is that the

211. 1998 ANPRM, 63 Fed. Reg. 36,742, 36,784 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131).

212. 40 C.F.R. § 131.12(a)(2).

213. In its 1985 Questions & Answers document, EPA states that this phrase: ensures that the limited provision for lowering water quality of high quality waters down to “fishable/swimmable” levels will not be used to undercut the Clean Water Act requirements for point source and non-point source pollution control. Furthermore, by ensuring compliance with such statutory and regulatory controls, there is less chance that a lowering of water quality will be sought in order to accommodate new economic and social development.

WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, app.G at 7-8.

214. 600 N.E.2d 1042 (Ohio 1992).

215. *Id.* at 1059-62. In many situations, a new discharger would not otherwise be subject to NSPS under the CWA. New municipal sewage treatment plants (known in CWA-speak as “publicly owned treatment works” or “POTWs”) are only subject to a technology-based limit known as “secondary treatment.” New industrial dischargers that are not classified as a “new source” because there were no promulgated “NSPS” would normally be subject to limits representing BAT or BCT. Under the court’s analysis, all new dischargers subject to Tier 2 antidegradation review would be subject to a case-by-case application of NSPS. The court, in part reached this conclusion based on its application of section 302 of the CWA, which authorizes the imposition of more stringent effluent limitations to achieve water quality goals, but only following a cost/benefit analysis. *Id.* This section has never been a significant aspect of the EPA’s water quality standards policies, and it has been used, rarely, if at all by the EPA.

EPA does not, under the antidegradation policy, require states to adopt non-point controls as a prerequisite for allowing growth. In its *Water Quality Standards Handbook*, the EPA practically shouts that this provision “does not REQUIRE a State to establish BMPs for non-point sources where such BMP requirements do not exist.”²¹⁶ Rather, the EPA indicates that this provision merely requires states to ensure that any nonpoint source controls that states may otherwise have adopted are being implemented.²¹⁷

C. The Relationship Between the Requirements for Impaired Waters and Antidegradation Requirements

So how does this all fit together? What is the relationship between the TMDL/WLA approach to attaining water quality standards and the antidegradation policy for maintaining water quality? Is there a coherent story of the EPA’s approach to growth in these provisions? The answer basically is “nope.”

There are several problems with integrating the TMDL/WLA process for impaired waters with the separate antidegradation provisions. First, they deal with two distinct problems. The TMDL/WLA process is intended to improve water quality; the antidegradation policy is intended to maintain water quality. The EPA itself cannot seem to understand the distinction and included a proposed offset requirement, designed to ensure improved water quality, as an amendment to its antidegradation policy.²¹⁸

Second, although the provisions deal with different issues, they overlap in confusing ways when implemented. One might think that the two programs were mutually exclusive: the class of “impaired waters” not meeting their designated uses was separate from the classes of Tier 1 and Tier 2 waters to which the antidegradation requirements apply. It certainly does not work this way. The Tier 1 classification is not limited to waters attaining water quality standards, and the Tier 1 prohibitions on loss of any existing uses apply equally to all waters, whether impaired or not.²¹⁹

But the overlap is even more complicated than this. Apparently, a water body can be both impaired and a high quality Tier 2 water. This conclusion apparently follows from a “pollutant-by-pollutant” approach to water body classification.²²⁰ In other words, a water body can be impaired (not meeting an applicable water quality criterion) for one pollutant but high quality with respect to other pollutants. This scenario would presumably result in multiple requirements, such as a WLA for the pollutants for which the water body is impaired, and an antidegradation review if there is “significant deg-

216. WATER QUALITY STANDARDS HANDBOOK, *supra* note 38, at 4-8.

217. *Id.* See *American Wildlands v. Browner*, 260 F.3d 1192, 1198 (10th Cir. 2001) (rejecting view that states are required to regulate nonpoint sources at the “antidegradation stage”).

218. See *supra* note 102 and accompanying text.

219. 1998 ANPRM, 63 Fed. Reg. 36,742, 36,781 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131); see also *supra* Section II.

220. 1998 ANPRM, 63 Fed. Reg. at 36,782-85; see also *supra* Section II.

radation” with respect to other pollutants. While there would be nothing wrong with such an overlap, it is just not clear what policy the EPA currently follows.

Furthermore, the EPA has not integrated the classification schemes for the two programs. The TMDL process is mandated by a classification of a water body as an “impaired water” on a section 303(d) list.²²¹ The antidegradation policy is based on a Tier 1/Tier 2 classification.²²² There is no apparent existing relationship between the two lists. The EPA has suggested, but not required, even the minimal step of encouraging use of data from the two programs in making determinations.²²³ They remain distinct.

Thus, we are left with overlapping programs with little coordination or connection. There is nothing wrong with overlap. One can be concerned both with improving water quality for pollutants that are at concentrations exceeding criteria values and maintaining quality for pollutants that are at levels better than criteria values. The problem is not the overlap but the lack of coherence and integration.

III. SLOUCHING TOWARDS A GROWTH POLICY

In the thirty-year history of the CWA, the EPA has never managed to develop a comprehensive and coherent policy on growth. Perhaps this is not surprising. The primary focus of the CWA has, until recently, been on development and implementation of technology-based standards.²²⁴ For many, this focus represents an appropriate choice and has resulted in substantial reductions in the discharge of pollutants.²²⁵ The resurrection of an environmental quality-based approach represented by the water quality standards program, however, now requires the country to confront difficult issues relating to environmental quality and growth.

Ultimately, the issue of growth under the CWA boils down to two questions. First, who should be required to reduce their discharge in order to improve water quality sufficiently to achieve water quality goals? Second, how much should we allow existing water quality to be degraded? Any answer to these questions involves extremely complicated and contentious technical questions of implementation and enforcement. But, at their cores, these questions are ultimately ones of public policy and can be resolved only by making difficult political decisions.

Acknowledging that issues are political does not mean there are no conclusions that can be drawn from the history of the treatment of growth under the CWA.

221. See *supra* note 45 and accompanying text; see also *supra* Section II.

222. 1998 ANPRM, 63 Fed. Reg. at 36,781-85.

223. *Id.* at 36,785.

224. See *supra* Section I.

225. See *supra* note 4 and accompanying text.

A. *Clarify the Process of Developing Water Quality-Based Effluent Limitations*

As the EPA has acknowledged, there is tremendous variation and uncertainty in the manner in which TMDL/WLA are used to establish WQBELs.²²⁶ Perhaps the single most significant step that the EPA could take would be to establish clear and consistent requirements for developing WQBELs. Such requirements would clarify the stage in the process in which instream water quality and mixing zone considerations apply. The role of the permit writer in integrating the WLA into a permit that ensures water quality criteria are not violated at the boundaries of a mixing zone would also be clarified. If stringent permit writing policies were in place, new or expanded dischargers might face a difficult time in permitting, which would alter the political pressures involved in undertaking a TMDL/WLA review. The whole TMDL process, indeed the whole rationale for the TMDLs, is suspect without clarity on these matters.

B. *Allocate Responsibility for Attaining Designated Uses Between Existing and New Sources of Pollution Through a Revision to 40 C.F.R. § 122.4(i)*

Achievement of water quality goals in impaired waters requires somebody to reduce their discharge of pollutants. It is really that simple. The greater the reductions that are required of existing sources, the greater the capacity for growth. The less we require of existing sources, the greater the impact on growth and expansion. This is not quantum physics; this is simple math.

The EPA has essentially identified two mechanisms for allocating control responsibilities between existing and new sources of pollution. Through growth allowances, states theoretically impose restrictions on existing sources to reserve greater capacity for growth.²²⁷ This policy places the burden of allocation on the state, and places more of the costs of compliance on existing sources. Alternatively, the EPA has identified offsets as a possible means of allocating reductions.²²⁸ Through offsets, control requirements are reduced on existing sources and the costs of control fall more heavily on new sources.

Either approach can work. There are different issues of implementation depending on the approach that is used, but both are possible, and the approaches are not mutually exclusive. Offsets, for example, can supplement a growth allowance program when the reserved allowances are inadequate to account for growth.

226. See *supra* notes 50-61 and accompanying text.

227. See *supra* notes 76-80 and accompanying text.

228. See *supra* note 102 and accompanying text.

Ultimately, the choice between these options can be left to the states. What the EPA must do is ensure that whatever policy states adopt will be effective to attain water quality standards. This will require some tough decisions, but a simple mechanism exists.

The EPA could expand and toughen the provisions of section 122.4(i)²²⁹ as the vehicle for integrating controls on new or expanded dischargers on impaired waters. The EPA should prohibit issuance of permits to new or significantly expanded discharges unless the discharger can establish that there is (1) an available growth allowance established through an approved TMDL process, or (2) an enforceable “offset” from existing dischargers.

Such an approach will require the EPA to clarify its requirements for growth allowances. At the moment, a growth allowance policy lurks in the interstices of the EPA regulations and guidance. The EPA needs to be more explicit and detailed on the use of growth allowances to attain water quality goals. Further, the EPA will need to revisit and seriously address the alternative of “offsets.” This will require development of an improved water trading program and require the EPA to confront the implementation process for offsets.

There are, however, several advantages to such an approach. First, by authorizing new or expanded discharges if there is *either* an allowance or an offset, states will retain the authority to allocate responsibility and costs between new or existing sources. If states do not establish a growth allowance, they will have made the decision to impose compliance costs on new sources. Second, the approach reverses the political pressure to develop TMDLs. The regulated community may now have an incentive to encourage, rather than oppose, TMDLs if they will be able to avoid offsets through the TMDL process. Third, the approach ensures some progress on improving water quality without the draconian use of a flat growth prohibition.²³⁰

C. Revise the Antidegradation Policy

The EPA’s antidegradation policy is deeply flawed and largely ineffective. It seems almost arbitrary in its standard for triggering antidegradation review, and it is unclear on the limits it places on the ability of states to allow degradation of water quality. The EPA has also confused the relationship between limits on degrading water quality and requirements to improve water quality.

Several revisions to the antidegradation policy would make it more coherent. First, abandon the “Tiers.” Whatever substantive standard for antidegradation is applied, it should apply to all waters, and antidegradation

229. 40 C.F.R. § 122.4(i) (2003).

230. There is some support for the view that 40 C.F.R. § 122.4(i) currently prohibits the permitting of new or expanded dischargers. *See supra* notes 89-101 and accompanying text. But a flat new source prohibition as a means of forcing compliance with water quality standards is simply a political train wreck waiting to happen. Can you spell “backlash”? A new source prohibition was a disaster under the Clean Air Act, and it would be a disaster under the CWA.

review should not hinge on a confused and arbitrary classification of waters. This could be done simply by revising the antidegradation requirement to prohibit both (1) the loss of an existing use at any time, and (2) the “significant degradation” of any water unless there has been full antidegradation review. This would require the use of the “pollutant-by-pollutant” approach for assessing water quality, but it would avoid debates over application of antidegradation requirements based on metaphysical classification of waters.²³¹

Alternatively, the EPA could integrate the “impaired waters” lists from section 303(d) with the application of antidegradation requirements. Impaired waters on the section 303(d) lists would be subject to the prohibition on loss of existing uses but subjected to the mandatory TMDL/WLA process. All waters not on the section 303(d) lists would be subject to the existing Tier 2 “high quality” waters provisions. This would simplify the determination of applicable requirements and alter the political incentives to identify waters as “impaired.”

Second, clarify the standard for triggering antidegradation review. At the moment, it appears (although the EPA has not been clear or consistent) that antidegradation review under Tier 2 is triggered only on a finding of “significant degradation.”²³² There is enormous variation among states on this issue, and the EPA has failed to take responsibility to address the matter. The EPA should also clarify that the determination of “significant degradation” is relevant only for triggering antidegradation review; it is not a substantive standard that prohibits discharges.

Third, the EPA needs to clarify the procedural aspects of antidegradation review. Under what circumstances is antidegradation review satisfied by the TMDL/WLA process? In other words, if a state allocates a WLA that authorizes expanded discharge, has the TMDL process itself satisfied any required antidegradation review, or is additional review required during the permit issuance process? Similarly, the EPA needs to clarify whether the public participation requirements applicable to NPDES permit issuance satisfy antidegradation review requirements. If they do, the “burden” of adding an expanded antidegradation review is minimized if it is simply an added component to permit issuance.

Finally, the EPA needs to clarify the substantive requirements for justifying degradation. Under the current policy, degradation of high quality waters is allowed, following a public process, to “accommodate important economic or social development.”²³³ This policy has created controversy and confusion as to the federal limits on growth. One option is to abandon

231. This is consistent with the approach the EPA has adopted in its Great Lakes Guidance. Great Lakes Guidance, 60 Fed. Reg. 15,366, 15,412-13 (Mar. 23, 1995) (to be codified at 40 C.F.R. pts. 9, 122, 123, 131, 132).

232. 1998 ANPRM, 63 Fed. Reg. 36,742, 36,783 (proposed July 7, 1998) (to be codified at 40 C.F.R. pt. 131).

233. 40 C.F.R. § 131.12(a)(2) (2003).

any pretense that the antidegradation policy imposes a substantive limit on a state's ability to allow degradation of water quality. The EPA should instead require a public process of debate and a formal documentation of a state's justification for allowing growth. Antidegradation, like the NEPA process, should be a largely procedural vehicle for forcing issues to be publicly confronted.²³⁴

There is a final, and largely coherent, picture that emerges from this set of recommendations. TMDL/WLAs are mandated on impaired waters, and no new discharger or significant expansion by an existing discharger is authorized in the absence of an available growth allowance or offset. Any new or expanded dischargers will also generally be subject to antidegradation review as part of the TMDL or NPDES process if their proposed new discharge will result in "significant degradation" of a pollutant exceeding criteria values. This policy makes sense to me.

IV. CONCLUSION

The CWA is now thirty years old. Much has been accomplished, but more remains to be done. Reliance on technology-based standards has allowed the EPA to avoid resolving the difficult social policy issues inherent in the water quality standards program. Certainly, the EPA has avoided resolving the difficult issues involved in the relationship between the attainment of water quality goals and the allowance for growth. At this stage of development of the CWA, it is getting more difficult to avoid the problems.

What may be the most surprising aspect of this issue is that nothing has changed since the CWA was first adopted. The tools available in 1972 may be the only tools that are necessary to address the issues today. In other words, the fault lies not in the statute but in ourselves if the issues remain unresolved.

234. It is important to stress that such a policy would only apply to the issue of "significant degradation." A prohibition on loss of existing uses should independently be applied. This issue, although difficult to resolve, involves far more of a factual rather than a policy dispute. It is even more important to stress that a policy of "significant degradation" is also independent of the substantive requirements that are imposed on existing and new sources on impaired waters.

