SANITARY SEWER OVERFLOWS: PAST, PRESENT, AND FUTURE REGULATION

I. INTRODUCTION

Sanitary sewers are an overlooked part of the nation’s infrastructure. Most Americans never think twice about what happens to the water that runs down the drain. The public eye turns to sanitary sewers only when untreated waste overflows into the surrounding environment. The image of sanitary sewer overflows (“SSOs”) into ambient surface waters or basements is not a pleasant one, but how difficult is it to prevent such an overflow? What level of regulation is appropriate to effectively spur sewer owners, mainly municipalities, to eliminate overflows?

The United States Environmental Protection Agency (“EPA”) is currently in the process of promulgating a new rule that will govern the regulation of SSOs (“Proposed Rule”). This Comment argues that the EPA’s new rule will not be effective for two main reasons: (1) The new rule will not remedy the current nebulous situation of ad hoc, uneven administration by the EPA and the various responsible state agencies; (2) The new rule’s broad exceptions will allow too many preventable SSOs to go unpunished. Further, this Comment proposes a single modification to the Proposed Rule that would increase the uniformity and enforceability of this area of the law by linking regulators’ decisions on whether to prosecute the most common SSO violations—those induced by wet weather—to the intensity of the wet-


2. As a civil engineer, the author of this Comment deals with issues of sewer capacity (or lack thereof) on a near-daily basis. He has advised municipalities of their obligations triggered by permits issued under the Clean Water Act (“CWA”). He has conducted several sanitary sewer capacity studies for local municipalities. He has overseen the installation and operation of flow monitoring equipment in sanitary sewers, evaluated and interpreted the data collected from this equipment, and written the resulting technical reports. He has witnessed firsthand the increased flows in sanitary sewers because of extreme rainfall events and has participated in engineering projects undertaken with the sole purpose of reducing or eliminating storm water infiltration and inflow to sanitary sewers.

3. See Proposed Rule, supra note 1, at 1.
weather event that caused the SSO.

The SSO problem is not new. During the environmentally conscious 1970s, Congress attempted to attack the SSO problem by enacting the Federal Water Pollution Control Act (now known as the Clean Water Act ("CWA")). In effect, Section 301 of the CWA completely prohibited SSOs. Congress entrusted the duty of enforcing this prohibition to the newly created EPA. Under the permit issuing system of the CWA, however, the EPA's highly discretionary enforcement of the prohibition was uneven.

Environmental watchdog groups helped change the erratic results of EPA enforcement by prodding overwhelmed government agencies into action. Today, many communities, feeling the sting of enforcement actions to the tune of hundreds of millions of dollars, are finding that the problem of SSOs cannot be overlooked any longer.

One example of this trend toward community involvement is the city of Cincinnati, Ohio, which recently signed a consent decree with the EPA to address its SSO problem. The Sierra Club challenged the consent decree in federal court on the grounds that the decree was not ambitious enough. No one could positively determine how much it would cost to implement all the repairs mandated by the Cincinnati consent decree. The Sierra Club estimated the amount at one billion dollars. City authorities disagreed, but admitted that the first phase of repairs alone would cost seventy-four million dollars.

This Comment addresses the past, present, and future of SSO regulation in

---

5. See id. § 1311(a).
6. Id. § 1251(d).
7. See infra Part III.
10. Id.
11. The Sierra Club is "America’s oldest, largest and most influential grassroots environmental organization," boasting over 700,000 members. http://www.sierraclub.org (last visited June 29, 2003). The Club maintains chapters in all fifty states. Id. The Club also has been the plaintiff in thousands of lawsuits seeking to protect the environment. See, e.g., Ohio Forestry Ass'n v. Sierra Club, 523 U.S. 726 (1998); Sierra Club v. City of San Antonio, 522 U.S. 1089 (1998); Cedar Point Oil Co. v. Sierra Club, 519 U.S. 811 (1996).
the United States. It applies the EPA’s Proposed Rule to the Cincinnati case study, explains why the EPA’s rule is inadequate, and concludes with a proposal to improve it. Part II of this Comment provides a general introduction to SSOs and describes the history of the SSO problem in the United States. Part III explains the current regulatory scheme employed by the EPA and responsible state agencies and how courts have addressed the SSO issue in the relevant case law. This Part illustrates the inadequacy of the current regulatory environment, including the problems of contested enforceability decisions and uneven enforcement. It also shows how the EPA is sometimes overwhelmed by the scope of the problem. Part IV examines the proposed SSO rule promulgated by the EPA in 2001. As demonstrated in Part III, an update to the regulatory scheme is sorely needed; however, the rule originally proposed by the EPA does not do enough to remedy the problem because it does not specifically address SSOs caused by wet weather. Part V examines Cincinnati, Ohio as a case study, which recently entered into a consent decree that could result in hundreds of millions of dollars worth of repairs to the city’s sewer system. Part V also shows how the current regulatory scheme has made Cincinnati’s problem into a disaster far worse than it had to be and how the EPA’s proposed regulatory scheme would not have improved the situation. Part VI suggests a single modification to the proposed regulatory framework—the addition of a standard permit condition that would tie the enforcement of SSOs caused by wet weather to the SSOs caused by the intensity of the rainfall. Part VI also suggests that this single modification would make uniform and fair enforcement easier and, if utilized, would have led to a smoother resolution of the Cincinnati controversy.

II. SSOs: Past and Present

Since the dawn of civilization, humans have grappled with the intensely practical problem of waste disposal. Over the past few centuries, engineers

14. Later, the EPA withdrew the Proposed Rule to allow then recently elected President Bush’s new EPA Administrator to examine it. At the time of the Rule’s withdrawal, the EPA stated that it expected to re-promulgate it in 2003 with identical “regulatory language.” United States EPA, Sanitary Sewer Overflows—Current Regulatory Framework and Proposed Rule, at http://cfpub.epa.gov/npdes/ssorule.cfm?program_id=4 (last visited Feb. 23, 2002). Currently, though, the EPA has removed any reference to an expected date of re-promulgation and merely states that the proposal is under review. Id.

15. See infra Part V. The local chapter of the Sierra Club has filed a lawsuit challenging the consent decree as insufficiently aggressive, a development that illustrates the vast discrepancies in how different parties view the SSO problem. Dan Horn, Sierra Club files suit against Hamilton Co., CINCINNATI ENQUIRER, Feb. 28, 2002, available at http://www.enquirer.com/editions/2002/02/28/loc_sierra_club_files.html.

16. See, e.g., Edwin Chadwick, Report . . . from the Poor Law Commissioners on an Inquiry
have developed sewer systems designed to transport sanitary sewage from individual homes to centralized treatment plants.\textsuperscript{17} However, modern systems have also brought modern problems caused by deviations from normal operating conditions.\textsuperscript{18}

\textit{A. Development of Sewer Systems and Transition to Separated Sewers}

Civilization took a giant step forward with the development of sewer systems, which are often credited with great reductions in the spread of communicable diseases.\textsuperscript{19} Originally, engineers designed sewer systems to convey both sanitary sewage and storm water runoff and to discharge into receiving waters without any treatment.\textsuperscript{20} As science in the area developed, the dangers posed by such an approach became evident.\textsuperscript{21} Treatment of the waste therefore was desired.

Engineers correctly realized that treatment of storm water flows was both unnecessary (because storm water is much cleaner than sanitary sewage) and cost-prohibitive (because storm water is much greater in quantity than sanitary sewage). Therefore, in most areas, engineers abandoned the combined storm and sanitary sewer approach.\textsuperscript{22} In older parts of some major cities, though, combined sewers are still in use.\textsuperscript{23}

Since its creation in 1970, the EPA has sometimes required communities to “separate” combined sewers—to route sanitary and storm flows in separate channels—in order to resolve persistent sanitary overflow problems by removing much larger storm flows from the sanitary sewers.\textsuperscript{24} These EPA-

\begin{flushright}
\footnotesize
\end{flushright}

\begin{itemize}
\item \textsuperscript{17} See infra Part II.A.
\item \textsuperscript{18} See infra Part II.B.
\item \textsuperscript{19} See, e.g., Chadwick, supra note 16; Proposed Rule, supra note 1, at 15, 19.
\item \textsuperscript{20} See, e.g., http://www.cleanstreams.org/overview.htm (discussing the development of the sewer system in Atlanta, Georgia) (last visited Feb. 9, 2003).
\item \textsuperscript{21} See id.
\item \textsuperscript{22} Proposed Rule, supra note 1, at 16.
\item \textsuperscript{23} In the older districts of Milwaukee, Wisconsin, combined sewers are still in use. In Milwaukee, combined sewer overflows (“CSO”) are a far worse problem than separated sanitary sewer overflows. See Sewage was Dumped in Lincoln Creek, MILWAUKEE JOURNAL SENTINEL, Aug. 16, 2002, at A2. For a detailed analysis of the combined sewer overflow problem and the EPA’s response, see Kevin B. Smith, \textit{Combined Sewer Overflows and Sanitary Sewer Overflows: EPA’s Regulatory Approach and Policy Under the Federal Water Pollution Control Act}, 26 ENVTL. L. REP. 10296 (1996). This Comment proposes that the EPA should tie its evaluation of a wet-weather induced SSO to the intensity of the rainfall event that caused it. This suggestion would be equally applicable to the enforcement decisions made by the EPA in response to CSO occurrences, although the intensity of the rainfall event that would cause an “allowable” CSO would likely differ from the “allowable” SSO-causing rainfall intensity.
\item \textsuperscript{24} See, e.g., Bolt v. City of Lansing, 587 N.W.2d 264, 266 (Mich. 1998); \textit{In re Authorization
commanded sewer separation projects have been judicially enforced by the courts, even at great expense to municipalities.\textsuperscript{25}

Today, both engineers and regulators embrace the concept of separated sewers: One system of "storm sewer[s]" is designed to convey only storm water flow and discharge it, untreated, to receiving waters, while the other system of "sanitary sewers" is designed to convey only sanitary waste directly to a treatment facility where the waste is treated.\textsuperscript{26} The treated waste stream, called "effluent," is then discharged into receiving waters. When the system works as planned, it stays far below the radar of public notice. However, when problems occur, sanitary sewers are forced into the public consciousness in unanticipated ways.\textsuperscript{27}

\textbf{B. Deviation from Normal Operation—Backups and Overflows}

Deviations from normal operating conditions can cause problems in the treatment cycle. The most frequent occurrence adversely affecting the operation of a municipality’s sanitary sewer system is a severe rain event.\textsuperscript{28} The sanitary sewer is designed to convey only sanitary waste, not storm water.\textsuperscript{29} Inevitably, though, some storm water gains entrance to the sanitary sewers.\textsuperscript{30} This penetration can occur through direct connections to the sanitary sewer by roof drains and sump pumps, through holes in sanitary manhole covers, through cracks in the pipes, or through many other unforeseen defects.\textsuperscript{31}

During the design of sanitary sewers, engineers make minimal allowances for this inevitable inflow and infiltration of storm water. However, when large amounts of storm water enter the sanitary sewer, backups occur because the pipes cannot convey larger amounts of flow adequately.\textsuperscript{32} In turn, these

\textsuperscript{26} See Proposed Rule, supra note 1, at 16.
\textsuperscript{28} MILWAUKEE METRO. SEWERAGE DIST., MMSD RAINWATER REDUCTION EDUCATION PROGRAM: FREQUENTLY ASKED QUESTIONS (2000) [hereinafter FAQ’S].
\textsuperscript{29} Id.
\textsuperscript{30} MILWAUKEE METRO. SEWERAGE DIST., HOW RAINWATER ENTERS THE SANITARY SEWER SYSTEM (2000).
\textsuperscript{31} Id.
\textsuperscript{32} FAQ’S, supra note 28, at 1. As the pamphlet succinctly puts it, "[k]eep the rainwater out of the sewer to help keep the sewer out of your basement." Id.
flows cause problems at treatment facilities that are not designed to accommodate them.\(^\text{33}\)

Eventually, the untreated sewage will back up through house laterals and overflow into basements of low-lying homes.\(^\text{34}\) To prevent this overflow, many municipalities have created automatic overflow points.\(^\text{35}\) When backups in the system reach a certain level, the untreated sewage overflows, either at designated or undesignated points, into the surrounding environment and local waterways.\(^\text{36}\) These backups can also be caused by electrical failures at the treatment plant, vandalism, or other accidents and emergencies.\(^\text{37}\) The EPA estimates that 40,000 of these SSOs occur each year (an average of over 100 overflows per day).\(^\text{38}\)

Scientific research involving the impact of SSOs on water quality is ongoing.\(^\text{39}\) The EPA has identified many deleterious effects caused by SSOs, including human exposure to bacteria, viruses, and other pathogens.\(^\text{40}\) Environmental groups blame SSOs for degeneration of water quality, beach closings, and many other deleterious environmental effects.\(^\text{41}\) States identify the sewage treatment process as a pollution source that contributes to low water quality.\(^\text{42}\) The EPA recently convened a special advisory committee to delineate the specific health risks caused by SSOs.\(^\text{43}\) It seems that most concerned parties—states, the EPA, and environmental groups—agree that SSOs are to be avoided whenever possible. This outlook should be kept in mind during the discussion of the EPA’s current regulatory scheme in Part III.

III. CURRENT REGULATORY FRAMEWORK AND APPLICABLE CASE LAW

Congress empowered the EPA to regulate SSOs as part of the Clean


\(^{34}\) FAQ’s, supra note 28, at 1.


\(^{36}\) See generally Smith, supra note 23.

\(^{37}\) Proposed Rule, supra note 1, at 46.

\(^{38}\) See Smith, supra note 23. The EPA also has estimated that there are approximately 18,000 municipal sanitary sewer systems in the United States, serving about one-third of the nation’s population. id.

\(^{39}\) Id.

\(^{40}\) Proposed Rule, supra note 1, at 20.


\(^{42}\) Proposed Rule, supra note 1, at 21.

Water Act’s pollutant discharge permitting system. In the thirty years since the EPA gained this power, though, observers have criticized the EPA’s discretionary enforcement decisions. Congress anticipated some of these criticisms and incorporated corresponding safeguards into the CWA. However, disagreements about enforcement decisions have led to the courts’ involvement, both by interpreting statutory and regulatory provisions and by applying common law torts, such as nuisance and trespass, to the SSO problem.

A. The Clean Water Act

Formal regulation of discharges from treatment facilities began with the enactment of the CWA in 1972. By enacting the CWA, Congress intended to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Congress attempted to accomplish this goal by outlawing the discharge of pollutants to receiving waters without a permit.

Congress established that without a permit, the discharge of any “pollutant” by any “person” is unlawful, and it included sewage in the definition of a “pollutant.” SSOs fall under the heading of “point sources” of pollutants. Congress defined the term “person” to include individuals, corporations, and municipalities, among others. Such “persons” may only discharge pollutants, including sewage, when authorized to do so by a National Pollutant Discharge Elimination System (“NPDES”) permit issued to the discharger by a regulatory agency.

Congress also mandated the establishment of water quality standards in every state. Responsible state regulatory agencies establish these standards, typically indicating the maximum allowable total concentration of various pollutants that can be detected in a water sample at any given time.

To ensure that these maximum pollutant concentrations are not exceeded, regulatory agencies include corresponding limitations in all NPDES permits.

45. Id. § 1251(a).
46. Id. § 1311(a).
47. Id.
48. Id. § 1362(6).
49. Id. § 1362(14) (“The term ‘point source’ means any discernible, confined and discrete conveyance, including . . . any pipe . . . .”). Id.
50. Id. § 1362(5).
51. Id. § 1342(a).
52. See generally id. § 1313.
53. Id. § 1313(d)(1)(C).
on concentrations of pollutants in discharges to the affected waters.\textsuperscript{54} Thus, the regulatory agency's job is a complex and ever-changing one. In issuing NPDES permits, the agency must consider both the quantity and quality of the expected discharges from the permittee, as well as the quantity and quality of discharges from other permittees discharging to the same body of water. When permittees violate their permits, they are supposed to report the violations to the EPA or the responsible state agency.\textsuperscript{55} Upon receiving notice of the violation, the responsible agency decides whether to penalize the violator or excuse the violation.\textsuperscript{56} Some have criticized the discretionary nature of these decisions as leading to uneven enforcement.\textsuperscript{57}

\textbf{B. Enforcement Difficulties: Agency Discretion, Dual Jurisdiction, and Agency Capture}

Despite Congress' strongly pro-environmental language in the CWA, the EPA and the state regulatory agencies have always dictated which violations would be punished through discretionary enforcement of the law.

Congress embedded a system of dual jurisdictional authority within the CWA, allowing both the states and the EPA to maintain some control over the regulatory process. The individual states are allowed to set water quality standards within their boundaries,\textsuperscript{58} and most states do so.\textsuperscript{59} However, when the EPA finds that a violation has occurred without corresponding corrective action by the state agency charged with administering the state's version of the NPDES, the EPA can initiate legal action \textit{sua sponte}.\textsuperscript{60} This system of dual jurisdictional authority has, at times, caused problems with the EPA and

\begin{itemize}
  \item \textsuperscript{54} \textit{See id.} § 1342(a)(1).
  \item \textsuperscript{55} 40 C.F.R § 122.41(m)(3) (2002).
  \item \textsuperscript{56} \textit{See} 33 U.S.C. § 1251(d) (granting the EPA Administrator authority to administer the CWA).
  \item \textsuperscript{58} 33 U.S.C. § 1313(a)(1-3).
  \item \textsuperscript{59} \textit{State NPDES Program Authority, at} http://cfpub.epa.gov/npdes/images/State_NPDES_Prog_Auth.pdf (last visited Nov. 8, 2002). Only four states (Arizona, New Mexico, Alaska, and Idaho) do not have authority to administer their own NPDES permit system. \textit{Id.}
  \item \textsuperscript{60} 33 U.S.C. § 1319(a)(1). "Whenever... the Administrator finds that any person is in violation of any condition or limitation which implements... this title in a permit issued by a State under... this title he shall proceed under his authority" to issue an order requiring compliance or to initiate a civil action in federal district court. \textit{Id.} The Administrator also has the option of simply notifying the violator and the state of the violation. \textit{Id.} If, after the notification, no action ensues within thirty days, the Administrator is required to issue an order or initiate a suit as described above. \textit{Id.}"
\end{itemize}
Another difficulty in enforcing the CWA is agency "capture" by a regulated industry. An industry "captures" a regulatory agency when, for all practical purposes, the agency is under the control of the regulated industry. This occurs in part because of the "myriad pressures and incentives that push regulatory choices in the direction desired by regulated industry." Many factors contribute to an industry’s capture of an agency. The agency’s scarce resources can make it partially dependent on the regulated industry for funding. Special interest groups funded by the industry can be the "single, loud voice" the agency hears, pushing it in a certain direction. A regulator’s personal opinion on a particular situation may be the same as the regulated industry’s but contrary to a statutory or regulatory scheme. More cynical analysts postulate that by making decisions favorable to regulated industries, regulators may assure themselves cozy industry jobs after leaving the agency. Perhaps as a result of the tendency toward capture, one observer’s research shows that environmental regulators prefer to informally bargain with violators in order to reach agreement on future remedial actions rather than pursue formal judicial enforcement of penalties for violations.

In an internal memorandum dated April 27, 2000, the EPA’s national officials acted to limit the discretion exercised by the EPA’s local officials by issuing a new “Compliance and Enforcement Strategy” regarding both SSOs and CSOs to its regional water management directors. The regional

61. See generally ROBERT V. PERCIVAL, ENVIRONMENTAL REGULATION—LAW, SCIENCE AND POLICY 1009 (2000) (discussing Harmon Industries v. Browner, 191 F.3d 894 (8th Cir. 1999)). Harmon involved another important environmental statute, the Resource Conservation and Recovery Act (“RCRA”). RCRA regulates solid waste disposal. 42 U.S.C. §§ 6901-92 (2000). In Harmon, the EPA filed a duplicate enforcement action against a violator already being prosecuted by a state regulatory agency (known as “overfiling”). PERCIVAL, supra, at 1009. Percival notes that the “EPA’s inspector general issued a report finding widespread failures to enforce some of the basic requirements of the environmental laws” on the part of the states. Id. NPDES permits issued to some major dischargers were found to have been expired for over ten years. Id.

63. Id. at 109.
64. Id.
65. Id. at 108-09.
66. Id. at 110.
67. Id. at 83.
directors were instructed to use "the full range of regulatory response options" available to identify as many SSO locations as possible.\(^6\) Considering the EPA estimates that 40,000 SSOs occur each year, this was no easy task.\(^7\) The regions were further directed to attempt to eliminate twenty percent of the worst SSO offenders each year.\(^8\) In identifying the twenty percent slated for enforcement, the regional directors must consider such factors as receiving water quality,\(^9\) environmental justice,\(^10\) and beach closure areas.\(^11\) In the memorandum, EPA officials also provided practical directives to the various regions in selecting enforcement mechanisms.\(^12\) The regions were directed to use civil judicial actions with the objective of obtaining consent decrees that included an enforceable schedule and required project milestones to guarantee eventual compliance.\(^13\)

In creating these consent decrees, courts have held that the EPA can impose a so-called "sewer hook-up moratorium" on municipal violators, meaning that no new connections to the sewer system will be allowed until the bypass is eliminated.\(^14\) These moratoria can have a profound effect on the economic health of a municipality, because if no new sewer hookups are permitted, no new building development can take place. The memorandum undoubtedly will help local EPA officials decide whether to enforce a NPDES permit violation caused by an SSO.

Congress anticipated that the EPA might encounter problems in deciding which violations to enforce and acted to limit the EPA's discretion in several ways.

---

6. Id.
7. See Smith, supra note 23. Complicating the task even further is the fact that most SSOs do not occur at well-documented locations; rather, the sewage simply bubbles up through surcharged manholes or other points of free exit. See generally id.
8. EPA Memo, supra note 68, at 10.
9. Id.
10. Id. The environmental justice movement focuses on alleged "connections between discrimination, poverty, and the distribution of environmental risks." PERCIVAL, supra note 61, at 20. See generally id. at 19-28. The movement generally asserts that those in poverty bear a greater than warranted share of environmental risk. Id.
11. EPA Memo, supra note 68, at 10.
12. Id.
13. Id.
C. Limits on Agency Discretion—Authorization of Citizen Suits and Requirement of Standard NPDES Permit Conditions

1. Congressionally Imposed Limitations

Congress attempted to limit agency discretion in two ways: (1) By building express limitations on agency discretion into the statutory language of the CWA; and (2) By authorizing citizen suits to allow the public to monitor the regulatory agencies’ performance.

a. Express Statutory Limitations on Agency Discretion

An examination of the CWA, and most environmental statutes, indicates that Congress recognized the danger of, and acted to prevent, agency capture. Congress limited the EPA’s discretion by commanding that the EPA “shall” initiate an enforcement action when it detects a violation. This language, taken at face value, makes clear that the EPA really has no discretion; whenever it detects a violation, it must initiate an enforcement action. In reality, limited agency resources and enforcement costs dictate a different outcome, as agency officials struggle to determine which violations are worth prosecuting. Perhaps knowing that the EPA might encounter such problems, Congress next acted to appoint the public at large as the ultimate overseer over the EPA.

b. Congress’s Authorization of Citizen Suits

Congress built another safeguard into the CWA by authorizing “citizen suits.” Any citizen may sue “any other governmental instrumentality or agency . . . alleged to be in violation of . . . an effluent standard or limitation.” Citizens may sue either the violator or the regulatory agency perceived as failing to enforce a remedy for the violation. Though these “citizen plaintiffs” have enjoyed some success, courts have erected fairly high hurdles to the courthouse door.

78. For a discussion of agency capture, see supra notes 62-67 and accompanying text.
80. See supra Part III.B.
82. Id.
83. Compare § 1365(a)(1), with § 1365(a)(2).
85. See generally Gwaltney of Smithfield, Ltd., v. Chesapeake Bay Found., Inc., 484 U.S. 49 (1987) (narrowing the circumstances under which citizen suits can be maintained under the CWA by holding that citizens cannot maintain suits for wholly past violations of the CWA).
Congress attempted to ensure uniform enforcement of the CWA through these legislative measures. However, it is the EPA and the responsible state agencies, not Congress, that oversee day-to-day enforcement of the statute. To its credit, the EPA has attempted to standardize the regulatory programs of the responsible state agencies by requiring that certain conditions be incorporated into every NPDES permit.  

2. EPA Imposed Limitations: Standard Permit Conditions

The EPA divides unplanned overflows into two categories: "bypasses" and "upsets." The EPA uses standard permit conditions to regulate these unauthorized discharges from treatment facilities. By incorporating these standard permit conditions, the EPA limits the discretion that local enforcement agencies enjoy. The standard permit conditions also are important because in writing the newly proposed SSO standard permit conditions, discussed in detail in Part IV, the EPA relied heavily on the language used in the existing "bypass" and "upset" standard provisions.

a. "Bypass" Standard NPDES Permit Condition

The EPA defines a "bypass" as "the intentional diversion of waste streams from any portion of a treatment facility." The EPA expressly prohibits bypasses and may commence an enforcement action unless all three of the following apply: 1) the bypass was "unavoidable to prevent loss of life, personal injury, or severe property damage"; 2) there were "no feasible alternatives" to the bypass; and 3) prompt notice of the bypass was submitted to the permitting authority.

b. "Upset" Standard NPDES Permit Condition

The EPA defines an "upset," on the other hand, as "an exceptional incident in which there is unintentional and temporary noncompliance with... permit effluent limitations because of factors beyond the reasonable control of the permittee." A violator can maintain an affirmative defense to prosecution for an upset if the violator can prove four things: 1) an upset occurred; 2) the treatment facility was being properly operated at the time of
the upset; 3) prompt notice was submitted to the regulatory authority; and 4) Any necessary remedial measures were taken. Although the EPA allows most states to administer their own NPDES permit programs, it limits the authorized states’ power by requiring that only the responsible state regulatory agencies insert the bypass and upset provisions in every NPDES permit.

D. Judicial Interpretation of Standard Permit Conditions

Courts have construed the EPA’s bypass and upset provisions narrowly. Though the Supreme Court has not directly addressed the issue of SSOs, it has endorsed the long-standing principle of interpretation that exceptions to a rule are to be construed narrowly.

Federal district courts have construed the “bypass” and “upset” conditions narrowly, taking note of the EPA’s formal declaration that “[i]t must be stressed that upsets are exception events which should occur infrequently. The upset provision should not be construed as providing relief where there is a pattern of permit violations.”

A court prevented a municipality from successfully asserting the EPA standard affirmative defenses in United States v. City of Toledo. The EPA sued Toledo for alleged CWA violations stemming from the city’s discharge

---

93. Id. § 122.41(n)(3). The Proposed Rule, discussed in Part IV, expressly states that its framework is similar to this “upset” standard. Proposed Rule, supra note 1, at 167. The difference between the Proposed Rule and the existing rule is that the Proposed Rule is broader to allow an affirmative defense to enforcement actions when the discharge was caused by factors other than severe natural conditions. Id.

94. Id. § 122.41. States that administer their own NPDES programs are also required to include these conditions. Id. However, states can modify these standard conditions by making them more stringent. Id. § 123.25; see also Mianus River Pres. Comm. v. EPA, 541 F.2d 899, 906 (2d Cir. 1976) (allowing states to modify federal CWA provisions to be more stringent). For example, some states modify the EPA provisions prohibiting bypasses and upsets by omitting those portions allowing affirmative defenses to violations. United States v. Allegheny Ludlum Corp., 118 F. Supp. 2d 615, 618 (W.D. Pa. 2002) (prohibiting violator from relying on the EPA’s standard affirmative defenses to bypass and upset because those affirmative defenses were omitted from the state permit); see also Conn. Fund for Env’t, Inc. v. Upjohn Co., 660 F. Supp. 1397 (D. Conn. 1987) (noting that failure to adopt the standard EPA permit affirmative defenses must be seen as a desire to adopt stricter standards). Other states simply copy the EPA standard conditions verbatim. See, e.g., Pub. Interest Research Group of N.J., Inc. v. United States Metals Ref. Co., 681 F. Supp. 237, 242-43 (admitting that violator’s permit contained affirmative defense to bypass, but denying relief because violator did not meet all conditions to qualify for an affirmative defense). At least one other state statutorily mandates that its environmental agency may not impose any conditions regarding SSOs that are more stringent than the EPA’s. TEX. WATER CODE ANN. § 26.049 (Vernon 2000) (prohibiting adoption of any SSO regulations stricter than the national requirements and requiring state rules to employ the maximum flexibility allowed under national policy).


of minimally treated wastewater during routine rainfall events. The city discharged minimally treated wastewater through a bypass into a local waterway. The court characterized the issue as a pure question of law: The meaning of the phrase “feasible alternatives” in the standard NPDES permit condition involving bypasses. Toledo argued that the phrase, “feasible alternatives,” did not contemplate the construction of new and/or expanded treatment equipment, but was limited to feasibility with existing equipment. The EPA, on the other hand, asked the court to find that the construction of additional treatment capacity was indeed a “feasible alternative” under the regulation. The city argued that the EPA’s interpretation of the exception was “plainly erroneous or inconsistent with the regulation” and that it was inconsistent with prior agency decisions. The court first addressed the plain language of the regulation and held the EPA’s interpretation was amply supported, noting that no language in the permit restricted feasibility to existing facilities. The court refused to insert such a restriction.

Next, the court considered the structure and context of the regulation as a whole. Toledo argued that the regulation’s focus was simply operational, dealing with existing facilities, not future ones. Again, the court disagreed. After consulting, inter alia, the EPA’s comments regarding the regulation in question, the court found that “one focus of the bypass prohibition is to ensure the constant operation of all existing equipment . . . another focus is to avoid any violations of permit effluent limitations.”

The court then embarked on an instructive discussion of applicable case law. The court began by citing United States v. Weitzenhoff. In Weitzenhoff, the Third Circuit stated that the “EPA’s interpretation of its bypass regulation is entitled to considerable weight.” Next, the City of Toledo court discussed four decisions from other federal district courts.

98. Id. at 835.
99. Id.
100. Id. at 836.
101. Id.
102. Id.
103. Id. at 837. However, according to the court, the city provided no evidence of how the EPA’s interpretation was inconsistent with prior agency decisions. Id. at 839.
104. Id.
105. Id.
106. Id. at 837-38.
107. Id. at 838.
108. Id.
109. 35 F.3d 1275 (9th Cir. 1993).
110. Id. at 1288-89.
Although none of the four decisions were directly on point with the issues in the case at bar, the court found that all were instructive because the courts "prohibited the bypasses at issue and construed the bypass exception narrowly." The City of Toledo court then followed suit, affirming the EPA’s narrow interpretation of the bypass exception to require the construction of new treatment facilities for wet weather.

In another case, the court refused to allow a violator to rely on the "bypass” or “upset” affirmative defense provisions of its permit because it failed to meet the notice requirements of those defenses. The court held that the violator’s five-day delay was enough to preclude application of the defense, even though the delay occurred over a holiday weekend. The same court noted that, to be excusable, bypasses or upsets must qualify as “exceptional” events not occurring time after time.

Another federal district court held that the likelihood of incurring huge expenses will not support a finding of “technically infeasible” as required by the bypass exception.

112. City of Toledo, 63 F. Supp. 2d at 839. The facts in Penn Hills came the closest to approximating the facts of City of Toledo. In Penn Hills, the district court concluded that construction of additional treatment equipment was a “feasible alternative” to bypassing. Id. at 838 (citing Penn Hills, 6 F. Supp. 2d at 437). Toledo, in a straw-grasping attempt to distinguish Penn Hills, noted that it was not stated in that case whether, as in the case at bar, the bypassing was because of wet weather. Id. The Save Our Bays decision addressed “feasible alternatives” only in the context of whether bypasses would be allowed during wet weather for repair and maintenance of existing facilities. Id. at 838-39 (citing Save Our Bays, 904 F. Supp. at 1134-36). The city also tried to distinguish this case, arguing that its principal focus was on the repair and maintenance aspects of the bypass, not on the underlying cause of wet weather. Id. In the Sierra Club case, the district court directly held that exceptions in a bypass prohibition could not justify repeated bypassing because of constant wet weather. Id. at 839 (citing Union Oil Co., 716 F. Supp. at 434-37). However, the bypass exception at issue in that case was not the standard EPA provision and did not contain a "feasible alternatives" provision. Id. Thus, the Sierra Club court concluded that it did not directly apply. Id. Finally, the Town of Lowell court concluded that bypasses were only authorized for emergency situations and that frequent bypass occurrences because of lack of treatment capacity were unallowable. Id. (citing Town of Lowell, 637 F. Supp. at 258). However, the Town of Lowell case did not discuss the “feasible alternatives” issue and, therefore, did not directly address the facts in City of Toledo. Id.

113. City of Toledo, 63 F. Supp. 2d at 839.


115. Id. at 243-44.

116. Id. at 244.

117. See, e.g., City of Mendota v. Ill. Pollution Control Bd., 549 N.E.2d 26, 28-30 (Ill. App. Ct. 1990) (requiring the city to spend $14 million to eliminate all overflows, despite engineering firm’s suggested improvements of $1.6 million to reduce number of bypasses to only two or three per year).
State courts construing similar state regulations have reached similar results. In *City of Mendota v. Illinois Pollution Control Board*, Mendota argued that the estimated spending of over fourteen million dollars to eliminate sewage overflows in a community of only 7000 residents was economically unreasonable. The Illinois Pollution Control Board is required by statute to take into account the "technical feasibility and economic reasonableness" of reducing the overflows. Despite this statutory directive, the Board refused to grant the city an exception under the statute. The court affirmed the Board's decision, noting that "[i]t is apparent that the heart of the city's argument is that technically feasible methods of preventing overflows are economically unreasonable." The court, like the Board and the Illinois Environmental Protection Agency ("IEPA") before it, rejected this argument, noting that the city had not proposed sufficient alternative measures to the complete fourteen million dollar system overhaul. The court made its findings even though the city presented data that the overflows caused little or no adverse environmental impact.

In addition to being called on to interpret these regulatory provisions, courts also have become involved in SSO disputes through an additional layer of complexity inherent in the current regulatory scheme—tort suits. As a result of these citizen suits authorized by Congress under the CWA, some courts have shown a willingness to apply common law tort doctrines, such as trespass and nuisance, to the SSO problem.

### E. Common Law Enforcement and Remedies

Courts generally have held that municipalities are liable under the common law doctrine of nuisance for property damage because of an SSO. In *Tamalunis v. City of Georgetown*, the Illinois Court of Appeals held that the Illinois Environmental Protection Act did not preclude a common law nuisance action. Tamalunis brought a nuisance suit against Georgetown for

---

119. Id. at 29.
120. Id. (citing Ill. Rev. Stat. 1987, ch. 111 1/2, ¶ 1027) (current version at 415 Ill. Comp. Stat. 5/27(a) (1997)).
121. Id. at 28.
122. Id. at 29.
123. Id.
124. Id. at 29-30.
125. See 33 U.S.C. § 1365(a) (2000); see also supra Part III.C.1.b (discussing Congress's authorization of citizen suits).
127. Id.
128. Id. at 409.
sewer overflows into a stream running across his property.\textsuperscript{129} The court affirmed the entry of a jury verdict totaling $150,000 in compensatory damages.\textsuperscript{130} Further, the court found that the plaintiffs could apply for further relief in future actions if the overflows continued.\textsuperscript{131}

Other courts have determined that the common law negligence doctrine of \textit{res ipsa loquitur} applies to sewer overflow actions.\textsuperscript{132} The doctrine relieves a plaintiff from the burden of proving specific negligence on the part of the defendant.\textsuperscript{133} Negligence is inferred when “the accident causing the plaintiff’s physical harm is a type of accident that ordinarily happens because of the negligence of the class of actors of which the defendant is the relevant member.”\textsuperscript{134} However, the theory is incompatible with the use of specific proof of negligence, because in such a case, a plaintiff would not need to rely on the \textit{res ipsa loquitur} doctrine.\textsuperscript{135}

In \textit{Bonnot v. City of Jefferson City},\textsuperscript{136} the Missouri Court of Appeals held that although \textit{res ipsa loquitur} applied to the damage caused to plaintiff’s home by sewer overflows, the plaintiff, in effect, proved too much to rely on the doctrine.\textsuperscript{137} The plaintiff in \textit{Bonnot} showed through expert testimony that the overflows would not have occurred if the city had performed regular maintenance on the sewer line.\textsuperscript{138} The court held that this was enough to deny submission of the case to the jury on a \textit{res ipsa loquitur} theory.\textsuperscript{139}

Violators have argued that SSOs caused by “extreme” wet-weather events “cannot be realistically engineered against.”\textsuperscript{140} Some courts have accepted this principle.\textsuperscript{141} However, some courts have also rejected this defense in the case in which backups “are the result not of ‘one-hundred-year rains’ but of mere annual precipitation.”\textsuperscript{142}

\begin{itemize}
  \item \textsuperscript{129} \textit{Id.} at 404.
  \item \textsuperscript{130} \textit{Id.} at 414.
  \item \textsuperscript{131} \textit{Id.}
  \item \textsuperscript{132} \textit{Id.}
  \item \textsuperscript{133} \textit{Id.}
  \item \textsuperscript{134} \textit{Id.}
  \item \textsuperscript{135} \textit{Id.}
  \item \textsuperscript{136} See \textit{Id.} at 414.
  \item \textsuperscript{137} See \textit{Id.}
  \item \textsuperscript{138} See \textit{Id.}
  \item \textsuperscript{139} See \textit{Id.}
  \item \textsuperscript{140} See \textit{Id.}
  \item \textsuperscript{141} See \textit{Id.}
  \item \textsuperscript{142} See \textit{Id.}
\end{itemize}
The current regulatory scheme consists of a hodgepodge of statutory directives in the CWA, permit provisions required by the EPA, discretionary enforcement by the EPA and state agencies, citizen suits, and court-imposed common law remedies. The EPA attempted to provide some clarity to the situation when it proposed a new rule for the regulation of SSOs in early 2001.

IV. THE EPA’S PROPOSED RULE

On January 4, 2001, the EPA issued a draft notice of proposed rulemaking for a new rule regulating SSOs. On January 20, 2001, the draft notice was withdrawn from the Office of the Federal Register pursuant to a memorandum issued by the White House. In the memorandum, newly-inaugurated President George W. Bush directed all administrative agencies to withdraw all pending documents for review by his newly appointed agency heads. In November 2001, after the appropriate review by the new Administrator, the EPA announced its intent to issue a new draft notice of proposed rulemaking that contained the same regulatory language as the original draft notice. Thus, for the purposes of this Comment, the original draft notice and the anticipated forthcoming draft notice will be treated as identical. The new draft notice was expected to appear in the Federal Register in 2003. As of this writing, the reissued draft notice has not yet appeared. The draft notice is a far-reaching document containing a wealth of information about SSOs.

A. SSO Definition

According to the EPA, any discharges of untreated wastewater qualify as SSOs, regardless of whether the discharges reach the waters of the United States. Backups of wastewater into buildings, including homes, also

---

144. Id.
145. Id.
146. Id. The revised notice will, however, contain a summary of public comment received on the original draft notice. Id.
147. Id.
149. See generally Proposed Rule, supra note 1. For example, the Proposed Rule discusses the definition of SSOs, the major causes of SSOs, and associated health and environmental risks. Id.
150. Id. at 80.
SANITARY SEWER OVERFLOWS

qualify as SSOs, unless such backups are caused by problems within the building lateral, not the main sewer line.\textsuperscript{151} The EPA cites the deteriorating condition of the nation’s sanitary sewer infrastructure and the rising number of SSOs as reasons to support the increased governmental oversight asserted by the Proposed Rule.\textsuperscript{152} The crux of the Proposed Rule is the promulgation of three new “standard permit conditions” to be contained in all future NPDES permits.\textsuperscript{153} The second of these three required conditions imposes a general prohibition on SSOs, subject to a laundry-list of exceptions.\textsuperscript{154}

\textbf{B. Proposed Standard NPDES Permit Conditions}

The three proposed general NPDES permit conditions are: 1) agreement of the permit holder to establish a “capacity, management, operation and maintenance” (“CMOM”) plan for the sewage collection system;\textsuperscript{155} 2) a prohibition on any discharge from the collection system prior to the treatment facility (i.e., SSO), subject to certain defenses for “unavoidable discharges”; and 3) reporting, public notification, and recordkeeping requirements for all SSO occurrences.\textsuperscript{156}

As noted, one of the EPA’s proposed general permit conditions is a general prohibition on SSOs. However, the Proposed Rule eviscerates this prohibition by allowing a variety of affirmative defenses to enforcement actions aimed at punishing violators. As discussed later in this Comment,\textsuperscript{157} the available defenses are so broad that the practical effect of the Proposed Rule will be minimal, and the current situation will be close to unchanged.\textsuperscript{158} Further, the rule states that the EPA may be persuaded to allow additional unpunished violations through the use of its enforcement discretion.\textsuperscript{159}

The EPA divides the affirmative defenses allowed by the draft notice into two categories: 1) defenses to overflow violations caused by “severe natural conditions”;\textsuperscript{160} and 2) defenses to overflow violations caused by “factors other

\textsuperscript{151} \textit{Id.}
\textsuperscript{152} \textit{Id.} at 25.
\textsuperscript{153} \textit{Id.} at 77.
\textsuperscript{154} \textit{Id.} at 165-68; \textit{see infra} Part IV.B (discussing proposed standard NPDES permit conditions).
\textsuperscript{155} The CMOM program would include such measures as emergency overflow response procedures, a sewer system evaluation and capacity plan, and documentation requirements. \textit{Id.} at 87-88.
\textsuperscript{156} \textit{Id.} at 77.
\textsuperscript{157} \textit{See infra} Part VI.
\textsuperscript{158} \textit{See id.}
\textsuperscript{159} Proposed Rule, \textit{supra} note 1, at 150.
\textsuperscript{160} \textit{Id.} at 165.
than severe natural conditions.”161 A defense to a violation caused by severe
natural conditions requires three components: 1) the violation was caused by a
condition such as “hurricanes, tornados, widespread flooding, earthquakes,
[or] tsunamis”; 2) there were “no feasible alternatives”162 to the violation; and
3) the defense was submitted to the NPDES or local authority within ten days
of the discharge.163 This definition seems to exclude overflows caused by
heavy rainfall events, which, as discussed earlier in this Comment, are among
the most common causes of SSOs.164 The occurrence of the exemplary
“severe natural conditions” listed by the draft notice is so uncommon that this
exception would probably be of little use.

The second defense, “factors other than severe natural conditions,” would
probably be employed much more frequently. A violator asserting this
defense must prove the following to avoid liability: 1) the violator identified
the cause of the overflow; 2) the discharge was “exceptional, unintentional,
temporary and caused by factors beyond the reasonable control of the
permittee”;165 3) the discharge could not have been prevented by the exercise
of “reasonable control”;166 4) the defense was submitted to the NPDES or
local authority within ten days of the discharge; and 5) the violator took “all
reasonable steps to stop, and mitigate the impact of, the discharge as soon as
possible.”167

The EPA stated that the proposed framework for affirmative defenses is
similar to the existing standard NPDES permit condition for “upset,” with the
difference being that the new approach provides for affirmative defenses to
enforcement actions after discharges that were not caused by severe natural
conditions.168

C. Discretionary Enforcement

Of course, even under the proposed framework, the EPA could still
simply decline to prosecute the violation. Such a decision would fall within
the discretionary enforcement power enjoyed by the various EPA regions.

161. Id. at 167. Presumably, these defenses would replace the existing affirmative defenses
available for bypasses and upsets.
162. Id. at 165. Feasible alternatives might include such measures as retention of untreated
wastewater, reduction of infiltration and inflow of stormwater, or use of emergency treatment
equipment. Id.
163. Id.
164. See supra Part II.B.
165. Proposed Rule, supra note 1, at 167.
166. Id.
167. Id.
168. Id.
Uneven enforcement is one of the major criticisms of the existing regime and will be one of the major criticisms of the proposed regime. Part VI of this Comment proposes a discretion-reducing standard permit condition that would help remedy this problem.

D. Déjà Vu All Over Again?

At this point, it may be appropriate to pose a question: What exactly will have changed after the promulgation of the new rule? If anything, the new proposed standard conditions appear to allow a broader range of affirmative defenses than do the existing standard conditions. The new approach makes a defense to an SSO caused by factors “beyond the reasonable control of the permittee” available even if the SSO was not caused by severe natural conditions. No exact data on the cause of SSOs exists. However, it is widely believed that one of the most common causes of SSOs is extreme rainfall leading to wet weather inflow and infiltration into sanitary sewers. In fact, in the Proposed Rule, this is the very first cause of SSOs discussed by the EPA. Yet, it seems that an SSO caused by such a wet-weather event would be subject to the affirmative defense envisioned by the standard permit condition as a factor “beyond the reasonable control of the permittee.” It is instructive to apply the Proposed Rule standard condition to a situation in which an SSO was caused by an extreme rainfall event.

Such a rainfall would probably not qualify as a “severe natural condition” as defined by the first general permit condition—for example, earthquakes, tsunamis, and hurricanes. Thus, a violator’s defense to an enforcement action after an SSO caused by a wet-weather event would fall under the second general permit condition, a defense utilizing “factors other than severe natural conditions.” As discussed above, under this defense, a violator must prove the following to avoid liability: 1) the violator identified the cause of the overflow; 2) the discharge was “exceptional, unintentional, temporary and caused by factors beyond the reasonable control of the permittee”; 3) “the discharge could not have been prevented by the exercise of reasonable control”; 4) the defense was submitted to the NPDES or local authority within ten days of the discharge; 5) the violator took “all reasonable steps to stop,
and mitigate the impact of, the discharge as soon as possible." 174

A consistent overflow violator could satisfy these five conditions fairly easily and, therefore, could successfully mount an affirmative defense to prosecution for the violation. Yet, in the introduction to the Proposed Rule, the EPA claims that the proposed modifications will result in a reduction of SSO occurrences and an improvement of treatment facility performance. 175 This conclusion does not follow from a careful analysis of the change made by the Proposed Rule—a broadening of the potential for affirmative defenses. Additionally, the Proposed Rule does not aid the goal of uniform enforcement. It provides no yardstick to assist regulatory agencies in deciding which violations to prosecute with the limited resources available. 176 The EPA defends its proposal in part by identifying discussions in which many municipalities indicated that they believed that eliminating all SSOs was impossible. 177 The municipalities suggested a need for “a workable regulatory framework which . . . define[s] compliance endpoints in a manner that [is] consistent with engineering realities and the health and environmental risks of SSOs.” 178 Certainly, the EPA must reach a compromise between violators that desire less regulation and environmental groups that desire the complete elimination of SSOs. The Proposed Rule’s broad exceptions seem to be a clear victory for the municipalities that violate the SSO prohibition.

Cincinnati, Ohio has become embroiled in a controversy over its SSO problem—a controversy partly caused by the inadequacy of the current regulatory scheme. Part V of this Comment will explore this problem and show that the Proposed Rule would not have led to a smoother resolution of the situation.

V. CASE STUDY: CINCINNATI, OHIO

The contentious events in Cincinnati, Ohio illustrate the problems often encountered when a municipality tries to address its SSO problems under the current regulatory scheme. The Metropolitan Sewerage District of Greater Cincinnati (“MSDGC”) identified over one hundred overflow points within its sanitary sewer system. 179 During wet weather, Cincinnati’s sewer system is unable to handle the increased flow, and these bypasses overflow millions of

---

175. Id. at 2.
176. See infra Part VI for a proposal of how this yardstick assistance might be provided to agencies.
177. Proposed Rule, supra note 1, at 27.
178. Id.
179. Klepal, supra note 35.
gallons of untreated or partially treated sewage to the environment.\textsuperscript{180} The worst of these, known as the SSO 700, overflows more than forty times per year, pouring an estimated sixty-one million gallons of completely or partially untreated sewage into the east branch of Cincinnati’s Mill Creek.\textsuperscript{181} Local environmental groups had long lobbied for enforcement action against MSDGC, and the EPA obliged with a complaint filed in 1992.\textsuperscript{182} Negotiations toward a consent decree\textsuperscript{183} began in 1996.\textsuperscript{184} Six years later, the consent decree was finalized and announced in February 2002.\textsuperscript{185}

The consent decree, hailed in some quarters and disparaged in others, is eighty-four pages long and imposes various requirements on the city of Cincinnati, Hamilton County, and MSDGC.\textsuperscript{186} One of the first items addressed is SSO 700. The decree mandates a two-step approach to solving the worst problem in the system. First, Cincinnati must construct a small treatment facility at the SSO 700 location to improve the quality of discharges from that overflow while more permanent solutions are being studied.\textsuperscript{187} The city must spend ten to fifteen million dollars on the interim treatment facility and complete construction of the facility by 2007.\textsuperscript{188} No final solution is mandated. However, one approach that is suggested for study is the construction of a “deep tunnel” that would store would-be overflow sewage during a rainstorm and then release it slowly during the following days at a rate that the existing sanitary system can handle.\textsuperscript{189} The city must propose a plan for the permanent solution by 2009.\textsuperscript{190} If the tunnel solution is chosen, the city must complete construction by 2016.\textsuperscript{191} If the city chooses another solution, the city must complete construction by 2022.\textsuperscript{192}

The city must also take other corrective action. In addition to the work required on SSO 700, the city must also fix sixteen other overflow points believed to be among the most environmentally harmful.\textsuperscript{193} The city must

\begin{footnotes}
\item[180] Id.
\item[181] Fixing Sewers, supra note 13.
\item[182] Garretson, supra note 12.
\item[183] A consent decree is an order of the court that is agreed to by all concerned parties. BLACK'S LAW DICTIONARY 419 (7th ed. 1999).
\item[184] Garretson, supra note 12.
\item[185] See Fixing Sewers, supra note 13.
\item[186] See generally Consent Decree, supra note 9.
\item[187] Id. at 18.
\item[188] Id. at 19.
\item[189] Id. at 13, 22.
\item[190] Id. at 22.
\item[191] Id. at 23.
\item[192] Id.
\item[193] Fixing Sewers, supra note 13.
\end{footnotes}
also prepare a comprehensive plan with the goal of eventually eliminating all SSOs.\textsuperscript{194} The elements of the plan include data collection and modeling, analysis and assessment, and implementation.\textsuperscript{195} The decree specifically notes that it mandates no specific date by which construction on all SSOs must be completed; however, the city must propose such date in a plan submitted to the EPA.\textsuperscript{196}

The decree also contains two major economic measures intended to spur the city along in meeting these objectives. First, the city must impose a sewer hookup moratorium—\textsuperscript{197}it can authorize no new connections to the sanitary sewer system that might aggravate downstream conditions, causing new SSOs or contributing to existing SSOs.\textsuperscript{198} By forbidding connections to the sewer system, the decree seriously curtails potential development, and the economic benefits that follow, within the city. Second, the decree mandates a schedule of fines for noncompliance with any of its provisions.\textsuperscript{199}

Both the EPA and the city hailed the decree as a victory, claiming that the settlement reached was best for the city and the environment. However, the local Sierra Club\textsuperscript{200} does not agree. On February 27, 2002, the Sierra Club filed a lawsuit in federal court, alleging that the decree was inadequate because, among other things: 1) it does not address all known SSOs in the city; 2) it provides no civil penalties for past violations; 3) it does not address the city’s combined sewer overflows; 4) the time allowed for public review of and comment on the decree was inadequate; and 5) the time allowed for the city to address the SSO problem was too long.\textsuperscript{201}

The Cincinnati controversy, especially the suit filed by the Sierra Club, illustrates the deficiencies some feel are inherent in the existing body of SSO regulatory law. First, the EPA used its enforcement discretion to decline to initiate action against the city for years, allowing the SSO problem to continue unabated.\textsuperscript{202} Even after the EPA decided to prosecute the city’s violations, six years passed until the parties reached an agreement on a consent decree. Second, the substance of the proposed solution is at least partially

\begin{itemize}
\item[194.] Consent Decree, \textit{supra} note 9, at 27.
\item[195.] \textit{Id.} at 28.
\item[196.] \textit{Id.} at 36.
\item[197.] \textit{Id.} at 38. As noted \textit{supra} in Part III.D, courts have held that the EPA has the authority to order such a moratorium.
\item[198.] \textit{Id.}
\item[199.] \textit{Id.} at 45. The city will be fined $1500 per day for days 1-30 of noncompliance, $3000 per day for days 31-60 of noncompliance, and $5000 per day over 60 days of noncompliance. \textit{Id.}
\item[200.] \textit{See supra} note 11.
\item[201.] Horn, \textit{supra} note 15.
\end{itemize}
unsatisfactory in that it does not address all, or even most, of Cincinnati’s SSOs.203

The Proposed Rule would fare no better. It would not require the EPA to initiate an enforcement proceeding at any point, and it would not require the elimination of all SSOs in a settlement. If anything, it would provide violators with a broader range of affirmative defenses.204 Part VI of this Comment discusses modifications that the EPA could make to the Proposed Rule to alleviate some of these problems.

VI. A PATH TO UNIFORMITY—PROPOSED MODIFICATIONS TO THE PROPOSED RULE

As everyone involved seems to agree, it is impossible to prevent all SSOs. On the other hand, the health and property risks involved make it imperative to prevent as many SSOs as possible. The EPA repeatedly has fought for a narrow interpretation of the standard “bypass” and “upset” provisions inserted into every NPDES permit, and the courts generally have agreed with the EPA’s construction.205 However, in the new rule, the EPA inexplicably broadens the available defenses for violators. Soon, the EPA will request notice and comment on its new rule dealing with SSOs. If it does not amend the rule from its current form, it is letting a golden opportunity slip through its fingers.

When it re-promulgates the Proposed Rule, the EPA would be wise to follow the lead of the courts and the engineering industry. Instead of skirting the issue of rainfall-induced SSOs with its currently proposed five-part requirement for overflow exceptions and distinctions between “severe natural conditions” and “factors beyond the reasonable control of the permittee,” the EPA should flex its regulatory muscle and promulgate a standard NPDES permit condition that directly addresses SSOs caused by wet weather in relation to the intensity of the rainfall event.

The EPA’s proposed framework for dealing with the SSO problem is inadequate because it will effect only a negligible change in the current unsatisfactory situation of uneven, discretionary enforcement. While the EPA has withdrawn the Proposed Rule for further review, it should remedy these deficiencies. It could do so by providing a uniform method to evaluate SSO violations occurring because of severe rainfall events, the leading cause of SSOs.

The basis for such a solution lies in the reliability of data accumulated

203. Id.
204. See supra Part IV.D.
205. See supra Part III.D.
over more than a century relating to precipitation intensity. Engineers generally characterize the severity of a rainfall as an “X-year storm event.”

For example, a rainfall of such intensity that, on the average, it occurs only once every ten years is called a “ten-year storm event.” Over the years, civil and environmental engineers have established reliable estimates for everything from one-year storm events to one hundred-year storm events for every part of the United States based on statistical analysis of precipitation.

The EPA admits that wet weather is one of the leading causes of SSOs. It should add a standard NPDES permit condition addressing SSOs caused by wet weather, with the standard expressly tied to the intensity of the bypass-causing wet-weather event. Perhaps a violator could be excused for bypasses caused by a ten-year rainfall event or a twenty-year rainfall event; the exact level of regulation would be the EPA’s to determine based on its applicable agency expertise. The establishment of such a concrete standard would take the guesswork out of enforcement and make the job of the EPA’s enforcement team much easier. Rainfall amounts could simply be measured at local rain gauges and compared against well-established, benchmark weather data. If the storm was more intense than the allowable limit specified in the permit, regulators would excuse the bypass. If it were not, regulators would prosecute the bypass.

At least one state has already discovered and implemented this solution. In Chesapeake Bay Foundation, Inc. v. Bethlehem Steel Corp., the court analyzed an affirmative defense provision that stated: “Bypassing... is prohibited; except when the precipitation event exceeds 5.1 inches in 24 hours as measured by the rain gauge located at No. 2 High Head Pumping Station.” The court simply inspected the rain gauge records, ascertained that the rainfall on the bypass dates had not exceeded 5.1 inches, and concluded that the affirmative defense was unavailable to the violator.

Other courts, speaking without enjoying the benefit of a specific rainfall benchmark such as the one in the Chesapeake Bay case, have noted that a

---

207. Id. This terminology can sometimes be confusing; a “10-year event” is a storm that, based on average probabilities, will return once every ten years. Id. Thus, by chance, a “10-year storm” could occur more or less than once within a single ten-year period. Id.
208. See generally MACKENZIE DAVIS & DAVID CORNWELL, ENVIRONMENTAL ENGINEERING 58-59 (3d ed. 1998). The Surgeon General of the Army was the first to record precipitation measurements in 1819. Id. at 59 n.8.
209. Proposed Rule, supra note 1, at 40.
211. Id. at 631.
212. Id.
municipality experiencing overflows after a one hundred-year storm event has a legitimate excuse, while a municipality that bypasses after a one-year storm event does not.\textsuperscript{213}

The EPA should find the ease with which the Chesapeake Bay court analyzed the permit at issue in that case instructive. Because the permit contained a specific rainfall amount, above which bypasses would be excused, the court had no difficulty in resolving the dispute after a simple inspection of the rain gauge records. If the EPA adopted a similar approach, it would make the lives of its own regulatory officials much easier.\textsuperscript{214} The regulatory officials, like the Chesapeake Bay court, could simply inspect the permit and the rain gauge records, and know instantly whether the violation could be excused or not. By using this method, the EPA could save enormous amounts of time and money spent by its officials in determining whether to prosecute a particular bypass.

Two potential objections to this proposal exist. First, it could be argued that this proposal leaves the EPA’s power of discretionary enforcement intact, and thus will have little effect on the reality of everyday enforcement. It is indisputable that the EPA’s discretion will remain. However, the addition of the standard permit condition will provide more of a bright-line rule to assist the EPA’s enforcers. Perfectly uniform enforcement will probably never be attained, and, as discussed below in the response to the second objection, may not always be desired. The proposal will also provide something for citizen and environmental groups to point to when attempting to enforce CWA provisions through a citizen suit.

Second, opponents might complain that the proposal does not take a cost-benefit analysis into account. It might require violators to undertake costly repairs to prevent SSOs that cause little or no environmental damage. However, courts have already rejected such cost-based arguments.\textsuperscript{215} Further, as already conceded, the EPA and the responsible state agencies will still have

\textsuperscript{213} Hafner & Sons, Inc. v. Cincinnati Metro. Sewer Dist., 694 N.E.2d 111, 114 (Ohio Ct. App. 1997).

\textsuperscript{214} In the Proposed Rule, the EPA notes in passing that permit violations could be “judged according to the severity of the natural condition coincident with the discharge.” Proposed Rule, supra note 1, at 153. However, the EPA never mentions this excellent idea again in the Proposed Rule and clearly does not incorporate it within its proposed standard permit conditions. Further, it seems clear that a rainfall event would not fall within the EPA’s definition of a “severe natural condition.” See Proposed Rule, supra note 1, at 165 (citing “hurricanes, tornados, widespread flooding, earthquakes, [and] tsunamis” as examples of “severe natural conditions”). This passing reference must therefore refer to judging violations according to the severity of the natural occurrence that caused an SSO.

enforcement discretion. If municipalities contend that no environmental damage occurred as a result of an SSO, these agencies could still decline to enforce the violation. If a citizen or environmental group contests that decision, the agency—and potentially a court—will have a decision to make. The proposed permit condition will merely provide a standard for the court to apply.

Hopefully, the increased likelihood of punishment for frequent overflows would spur violators to remedial action. But until the EPA promulgates such a definite standard and consistently punishes violators, the victims of overflow related damage will greet the sight of gathering rain clouds with dread, and they will be left wondering: How much raw sewage will be deposited on their property or in a local waterway this time? The problem is one of national significance, and the EPA should treat it as such by promulgating and enforcing a standard NPDES permit condition that outlaws overflows after all but the most infrequent storm events.

DAVID STRIFLING*

*The author wishes to thank Marquette Law School Assistant Professor Michael M. O'Hear for his thoughtful critique of this Comment. The author also thanks his fiancée, Kelly Baker, and all of his family for their love and support.