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Katrina's Lament: Reconstructing Federalism

JOHN R. NOLON*

I. INTRODUCTION

A. Katrina's Lament

The subject of stormwater management raises threshold questions about the federal system. Is the regulation of stormwater runoff and the environmental pollution it causes within the federal government's legal jurisdiction? Is it a matter reserved to the states under the Tenth Amendment? Or is it a joint responsibility and, if so, precisely how is federal and state authority shared? How does the delegation of power by states to local governments to regulate the use of privately owned land affect the federal-state division of power? What limits should there be on local control of land uses that cause "nonpoint source" pollution, the principal culprit to be controlled in stormwater management?

Stormwater runoff is one of the most serious causes of water pollution in the United States; in many locales, the contamination caused by the runoff exceeds what is caused by more visible and direct commercial and industrial facility wastewater.² Storm-

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^{1.} The wastewater pipe from which effluent flows into surface waters is a "point source" of pollution, generally conceded to be within the jurisdiction of the federal government. "Nonpoint source" pollution includes runoff from the land during storms: harmful substances that collect on driveways, parking lots, and rooftops, (i.e., oil deposits under tractor trailers) or that are deposited on lawns, rooftops, pastures, fields, and cropland (i.e., fertilizers, herbicides, and pesticides).

^{2.} See National Pollutant Discharge Elimination System—Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, 64 Fed. Reg. 68,722 (Dec. 8, 1999) (codified at 40 C.F.R. pts. 9, 122-24).

As pollution control measures for industrial process wastewater and municipal sewage were implemented and refined, it became increasingly evident that more diffuse sources of water pollution were also significant causes of water quality impairment. Specifically, storm water runoff draining large surface areas, such as agricultural and urban land, was found to be a major cause of water quality impairment.

water runs off from development sites—carrying sediment from the disturbed soils—and from developed properties, where lawns and vegetation and paved surfaces and buildings are loaded with harmful substances.³ Water runoff from storm events carries with it algae-promoting nutrients, floatable trash, used motor oil, suspended metals, sediments, raw sewage, pesticides, and other toxic contaminants.⁴ These contaminants flow with the stormwater from their source to streams, rivers, lakes, estuaries, and oceans.⁵

The regulation of construction and development, and resultant stormwater runoff, is understood to be within the province of

Id. at 68,723. The U.S. Environmental Protection Agency (EPA), in its 2000 National Water Quality Inventory, reported that nationally, of the total assessed miles of surface waters, "19% of stream miles, 43% of lakes, ponds, and reservoirs, and 36% of square mileage of estuaries" were "classified as impaired." The Inventory categorized "urban runoff/storm sewers" as the second-greatest pollutant of estuaries; the third greatest pollutant of lakes, ponds, and reservoirs; and the fourth greatest pollutant of rivers. See EPA, National Management Measures to Control Nonpoint Source Pollution from Urban Areas (Nov. 2005) at 0-1 [hereinafter EPA, 2005 National Management Measures], available at http://www.epa.gov/owow/nps/urbanmm/pdf/urban_guidance.pdf (last visited Feb. 19, 2006).

3. See National Pollutant Discharge Elimination System—Regulations For Revision of the Water Pollution Control Program Addressing Storm Water Discharges 64 Fed. Reg. 68,722, 68,725.

Urbanization alters the natural infiltration capability of the land and generates a host of pollutants that are associated with the activities of dense populations, thus causing an increase in storm water runoff volumes and pollutant loadings in storm water discharged to receiving waterbodies

Studies reveal that the level of imperviousness in an area strongly correlates with the quality of the nearby receiving waters. For example, a study in the Puget Sound lowland ecoregion found that when the level of basin development exceeded 5 percent of the total impervious area, the biological integrity and physical habitat conditions that are necessary to support natural biological diversity and complexity declined precipitously.

Id. (internal citations omitted).

- 4. See id. at 68,724 (citing Office of Water, EPA, Environmental Impacts of Storm Water Discharges: A National Profile, EPA 84-R-92-001 (1992)).
- 5. See Pixie A. Hamilton et al., U.S. Geological Survey, Water Quality and the Nation's Streams and Aquifers—Overview of Selected Findings, 1991-2001 (Circular 1265) (2004). The USGS National Water Quality Assessment Program found that.

contaminants are widespread, albeit often at low concentrations, in river basins and aquifer systems across a wide range of landscapes and land uses Nationally, at least one pesticide was found in about 94 percent of water samples and in 90 percent of fish samples from streams, and in about 55 percent of shallow wells sampled in agricultural and urban areas.

local governments, under power delegated to them by state legislatures.⁶ Yet municipal sewer systems collect and dispose of stormwater through effluent pipes identified as point sources subject to federal jurisdiction.⁷ As a result, the regulation of stormwater runoff is confused as a matter of law.

The debate over the distribution of power within the federal system was painfully present during the immediate aftermath of Hurricane Katrina. New Orleans Mayor Ray Nagin initiated the exchange:

You mean to tell me that a place where you probably have thousands of people that have died and thousands more that are dying every day, that we can't figure out a way to authorize the resources that we need? Come on man I need reinforcements I need troops, man. I need 500 buses, man. This is a national disaster. . . . I keep hearing that it's coming. This is coming, that is coming. And my answer to that today is BS, where is the beef? . . . Get off your asses and let's do something.⁸

A few days later, Defense Secretary Donald Rumsfield responded: "The Department of Defence is not a first responder. You need to be invited." A spokesperson for the State of Louisana asserted: "Governor Blanco[] [has refused] to sign an agreement proposed

[n]ational summaries . . . are useful in providing an overview of the magnitude of the problems associated with urban runoff. Solutions, however, are usually applied at the local level. State and local elected officials and agencies, landowners, developers, environmental and conservation groups, and others play a crucial role in protecting, maintaining, and restoring water resources. Their efforts, in aggregate, form the basis for changing the status of urban runoff from a local problem to a national problem.

EPA, 2005 NATIONAL MANAGEMENT MEASURES, supra note 2, at 0-1.

- 7. See e.g., Envtl. Def. Ctr., Inc. v. EPA, 344 F.3d 832, 840 (9th Cir. 2003), cert. denied, 541 U.S. 1085 (2004) ("Since storm sewer systems generally channel collected runoff into federally protected water bodies, they are subject to the controls of the Clean Water Act.").
- 8. New Orleans Mayor Lashes Out at Feds, CNN.com, Sept. 2, 2005, http://www.cnn.com/2005/US/09/02/katrina.nagin/index.html.
- 9. Giles Whittell, Warnings Were Loud and Clear–But Still City Drowned, The Times (United Kingdom), Sept. 8, 2005, available at http://www.timesonline.co.uk/article/0,,23889-1770245_1,00.html.

^{6.} This is a hotly debated matter, of course, particularly when local sources of nonpoint pollution enter and affect surface water systems that have been designated as "federally impaired" under the Clean Water Act, 33 U.S.C. §§ 1251-1387 (2000). Examining whether and how federal regulations can effectively govern how local land use agencies exercise their historically insulated authority to control private land uses is one of the purposes of this article. The EPA, in its November, 2005 guidance document, acknowledges that.

by the White House to share control of National Guard forces with the federal authorities . . . [because] [s]he would lose control when she had been in control from the very beginning." Following this exchange, President George W. Bush noted that "Katrina exposed serious problems in our response capability at all levels of government and to the extent the federal government didn't fully do its job right, I take responsibility." In

Katrina reflected the pervasive confusion that besets our nation's legal system for natural disaster response, recovery, and rebuilding.¹² That confusion similarly frustrates effective action regarding stormwater management.¹³ It also affects surface water pollution prevention,¹⁴ wetlands protection,¹⁵ transportation planning,¹⁶ protecting the public from chemical hazards,¹⁷

^{10.} Scott Shane, After Failures, Officials Play Blame Game, N.Y. Times, Sept. 5, 2005, at A1.

^{11.} Nursing Home Owners Face Charges, CNN.com, Sept. 13, 2005, http://www.cnn.com/2005/US/09/13/katrina.impact/index.html.

^{12.} See generally Nation on Edge: Losing Ground (John R. Nolon & Daniel Rodriguez, eds., forthcoming 2006) (on file with author).

^{13.} Stormwater management is primarily governed by the Clean Water Act, 33 U.S.C. §§ 1251-1387 (2000). See id. § 1342(p) (Phase I and Phase II Stormwater Discharge Control Programs). The federal regulations implementing this legislation are found at 40 C.F.R. § 122. The stormwater management program raises critical questions about the legality and efficacy of a program that charges federal agencies with oversight of local land use control which must be exercised in particular ways if nonpoint sources of pollution are to be limited. See infra Part III, "The Phase II Stormwater Management Program: How the Federal System Links with State and Local Police Powers."

^{14.} The Total Maximum Daily Load (TMDL) program established under the Clean Water Act requires states to identify and list waters not meeting federally established water quality standards. 33 U.S.C. § 1313(d). The TMDL program raises the same questions about how, administratively and legally, federal regulations and regulators can influence local land use decisions to limit nonpoint sources of pollution to the prescribed total maximum daily loads. See infra Part I.C., "Disintegrated Federalism."

^{15.} The efforts of the Army Corps of Engineers to prevent the construction of a landfill by a consortium of municipalities in the Chicago area were struck down by the U.S. Supreme Court because they affected resources beyond the reach of federal law, as adopted by Congress. In Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, 531 U.S. 159 (2001), the Court held that the Army Corps lacked jurisdiction under the Clean Water Act to regulate land development affecting intrastate, non-navigable waters based solely on the presence of migratory birds: "Permitting respondents to claim federal jurisdiction over ponds and mudflats falling within the 'Migratory Bird Rule' would result in a significant impingement of the States' traditional and primary power over land and water use." *Id.* at 174.

^{16.} The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users 23 U.S.C.S. §§ 101-206 (2006), encourages metropolitan planning organizations to consult with officials responsible for other types of planning activities that are affected by transportation in the area (including State and local planned growth, economic development, environmental protection, airport operations, and

mercury emissions, ¹⁸ greenhouse gas control, ¹⁹ and the transport of pollutants, ²⁰ among others.

B. Integrated Federalism

Curiously, the nearsighted focus on determining which level of government is primarily responsible, or most interested, in these matters has obscured the fact that responding to water pollution profoundly affects and implicates all three levels of government. Disaster mitigation, like the prevention of water pollution, requires the careful coordination of the resources and legal authority of all three levels of government. This article argues that the law can be structured to intermediate governmental roles in land use control and environmental protection. It describes, illustrates, and argues for a system of "reflexive law" implemented through an integrated framework of statutes and regulations at the federal, state, and local levels that allows regulators and private actors to influence and order the regulatory system.²¹

freight movements), or to coordinate its planning process, to the maximum extent practicable, with such planning activities. Id. § 134(g)(3).

- 17. Emergency Planning & Community Right to Know Act (EPCRA), 42 U.S.C. §§ 11001-11050, § 11005 (2000). Also known as Title III of the Superfund Amendments and Reauthorization Act (SARA), 42 U.S.C. §§ 9601-9675 (2000). EPCRA was enacted by Congress as the national legislation on community safety, designed to assist local governments in protecting the public and the environment from chemical hazards.
- 18. Mercury emissions are regulated under provisions of a number of federal statutes, including the Clean Water Act, 33 U.S.C. § 1251(a)(3) (discussing regulation of "discharge of toxic pollutants in toxic amounts"); the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6992 (2000); and the Safe Drinking Water Act, 42 U.S.C. §§ 300f-300j (2000); as well as by EPA regulations. See EPA, Mercury: Laws and Regulations, http://www.epa.gov/mercury/regs.htm (last visited Feb. 21, 2006).
- 19. See Energy Policy Act of 1992, 42 U.S.C. § 13385(b) (2000); see also U.S. DOE, Guidelines for Voluntary Greenhouse Gas Reporting, 70 Fed. Reg. 15,169 (Mar. 24, 2005) (codified at 10 C.F.R. pt. 300); 10 C.F.R. §§ 300.1-.13 (2006) (Voluntary Greenhouse Gas Reporting Program: General Guidelines).
- 20. Cindy Skrzycki, *States Rush in Where the Feds Fear to Tread*, Wash. Post, Sept. 13, 2005, at D1, quoting John Graham, the Bush administration's regulatory overseer at the Office of Management and Budget:

The Administration generally respects the Jeffersonian view that states should be given leeway to shape regulatory policies in ways that respond to state needs and preferences. However, we also respect the Hamiltonian view that, in some situations, a proliferation of conflicting state policies can frustrate national policy or interfere with interstate commerce and economic development.

21. The United Nations Environmental Programme (UNEP) recommends that national legislatures adopt framework laws for land, resource, and environmental protection:

We know how to create a framework of laws that link separate but related land use issues and that mediate the tensions among federal supremacy, states rights, and home rule. Consider, for example, the federal approach to disaster mitigation and coastal protection. The Coastal Zone Management Act (CZMA),²² which creates an intergovernmental initiative involving federal, state, and local agencies in coastal planning and management, includes among its purposes the mitigation of disaster damage.²³ The Disaster Mitigation Act (DMA)²⁴ is a federal law that encourages state and local governments to conduct disaster mitigation planning in disaster-prone areas—including coastal zones—and

Framework environmental laws are enacted to cover the entire spectrum of cross-sectoral environmental issues and to facilitate a more cohesive, coordinated and holistic approach to environmental management. Such legislation lays down the basic legal principles without any attempt at codification. It normally entails the declaration of environmental objectives and policies, the establishment of the related environmental institutions, and the definition of the common procedural principles for environmental decision-making applicable to all sectors. In this latter respect, the legislation often covers such cross-sectoral issues as environmental impact assessment, environmental quality criteria, and public participation in decision-making and implementation.

U.N. Econ. and Soc. Comm'n for Asia and the Pacific, ESCAP Virtual Conference: Integrating Environmental Considerations into Economic Policymaking Processes, Framework Laws, http://www.unescap.org/drpad/vc/orientation/legal/2F_frame_intro. htm (last visited June 8, 2006); see also UNEP Technical Assistance, http://www.unep.org/dpdl/Law/Programme_work/Technical_assistance/index_more.asp (last visited June 8, 2006).

- 22. 16 U.S.C. §§ 1451-1465 (2000).
- 23. Congress has declared that its policy for the coastal zone is(2) to encourage and assist the states to exercise effectively their respon-

(2) to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone... which programs should at least provide for...(B) the management of coastal development to minimize the loss of life and property caused by improper development in flood-prone, storm surge, geological hazard, and erosion-prone areas and in areas likely to be affected by or vulnerable to sea level rise, land subsidence, and saltwater intrusion, and by the destruction of natural protective features such as beaches, dunes, wetlands, and barrier islands.

16 U.S.C. § 1452. See also Linda A. Malone, The Coastal Zone Management Act and The Takings Clause in the 1990's: Making the Case for Federal Land Use to Preserve Coastal Areas, 62 U. Colo. L. Rev. 711 (1991). "[I]f the requirements for state programs were more specific, the CZMA would come close to the most controversial form of land control—federal land control. The passage of the CZMA was possible because the Act required state programs to implement federal policy rather than federal regulations." Id. at 727.

24. Disaster Mitigation Act of 2000, Pub. L. No. 106-390, 114 Stat. 1552 (codified as amended in scattered sections of 42 U.S.C.).

awards them financial incentives if they do so.²⁵ However accidental the relationship was in the mind of Congress, these laws are linked horizontally: They relate to each other as a matter of policy and promote both economic development and environmental protection in similar ways. These federal laws are linked vertically as well, relying on state and local authority to adopt disaster and coastal plans and encouraging implementation of those plans through funding and technical assistance. Using their police power authority,²⁶ the states have created comprehensive regimes for land use control in coastal zones and disaster-prone areas relying mostly on local land use planning and regulation for implementation.²⁷ This local authority is guided, in turn, by state policies and plans enacted in response to federal coastal zone management and disaster mitigation statutes, completing the vertical dimension.²⁸

Police power in the land-use control context encompasses zoning and all other government regulations which restrict private owners in their development and use of land. The police power is inherent in the sovereign power of the state to regulate private conduct to protect and further the public welfare. Courts have universally held that this power includes within its scope all manner of laws deemed necessary by the legislature to promote public health, safety, morals, or the general welfare (citations omitted).

Id.

^{25.} The Disaster Mitigation Act of 2000 articulates national legislative objectives that provide an opportunity to enhance local mitigation planning and implementation and to coordinate land use planning and regulation to promote disaster mitigation. The Act provides that in order to qualify for federal hazard mitigation grants, state and local governments must "develop and submit for approval to the President a mitigation plan that outlines processes for identifying the natural hazards, risks, and vulnerabilities of the area under the jurisdiction of the government." *Id.* § 322 (codified at 42 U.S.C. § 5165(a) (2000)).

^{26. 1} ARDEN H. RATHKOPF & DAREN A. RATHKOPF, RATHKOPF'S THE LAW OF ZONING AND PLANNING 1-7 (Edward H. Ziegler, Jr. et al. eds., 2005).

^{27.} States were instructed and motivated to adopt this approach to land use control, initially, in response to a model zoning enabling statute promulgated by the Advisory Committee on Zoning of the U.S. Department of Commerce. A Standard State Zoning Enabling Act Under Which Municipalities May Adopt Zoning Regulations (Revised Edition 1926), reprinted in 5 Arden H. Rathkopf & Daren A. Rathkopf, Rathkopf's The Law Of Zoning And Planning app. A (Edward H. Ziegler, Jr. et al. eds., 2005), available at http://www.planning.org/growingsmart/pdf/SZEnablingAct 1926.pdf.

^{28.} See, e.g., Or. Dep't of Land Conservation & Dev., Oregon's Statewide Planning Goals and Guidelines, Goal 7: Areas Subject to Natural Hazards (2002), available at http://egov.oregon.gov/LCD/docs/goals/goal7.pdf; Or. Dep't of Land Conservation & Dev., Chronic Coastal Natural Hazards Model Overlay Zone (Jan. 1998), available at http://www.oregon.gov/LCD/HAZ/docs/landslides/coastalhaz.pdf; N.H., Natural Hazards Mitigation Plan, Part VI: Coordination of Local Mitigation Planning (2004), available at http://www.nh.gov/safety/divisions/

This article demonstrates how the regime set in place by the Clean Water Act to control stormwater pollution can be implemented so that federal, state, and local powers are carefully coordinated, without the redundancy that perturbs landowners and developers and that fuels property rights complaints, litigation, and legislation. This article traces the regulatory thread in the field of stormwater regulation from its source in the Clean Water Act through its actual implementation at the state and local level in one state, and makes the case that regulatory programs can be designed to meet national, state, and local interests and take full advantage of the competencies of each level of government.

C. Disintegrated Federalism

This article's straightforward description of a successful, integrated effort to protect federal, state, and local interests in surface water protection masks the complexity of the task of coordination and stands in stark contrast to the paradigmatic federal approach to pollution prevention. A manifestation of this traditional tack is seen in the frustrated attempt by the U.S. Environmental Protection Agency (EPA) to control the entrance of point source and nonpoint source pollution into surface waters under the Total Maximum Daily Load (TMDL) program of the Clean Water Act.²⁹ The history of the stalled TMDL program is instructive, since the TMDL program aims to achieve the same objective as the federal stormwater management program that is currently being implemented.³⁰

Constitutional provisions granting Congress authority over interstate commerce provide the jurisdictional basis for federal action regarding water quality.³¹ The U.S. Supreme Court has broadly defined this authority, extending federal control over cur-

emergservices/bem/HazardMitigation/documents/Chapter_VI_Coordination_of_Local _Mit_Planning.pdf; Waterfront Revitalization of Coastal Areas and Inland Waterways, N.Y. Exec. Law art. 42 (Consol. 2006).

^{29.} Clean Water Act § 303, 33 U.S.C. § 1313; see supra note 14.

^{30.} For a detailed discussion of the historical background of the TMDL program, see Oliver A. Houck, The Clean Water Act TMDL Program: Law, Policy, and Implementation 11-48 (1999); see also Paula J. Lebowitz, Land Use, Land Abuse and Land Re-use: A Framework for the Implementation of TMDLs for Nonpoint Source Polluted Waterbodies, 19 Pace Envil. L. Rev. 97, 99-101 (2001).

^{31.} See Robin Kundis Craig, Beyond SWANCC: The New Federalism and Clean Water Act Jurisdiction, 33 Envtl. L. 113, 119-21 (2003). For a recent survey of the history of federal water pollution control legislation, see Kenneth M. Murchison, Learning from More than Five-and-a-Half Decades of Federal Water Pollution Control Legislation: Twenty Lessons for the Future, 32 B.C. Envtl. Aff. L. Rev. 527 (2005).

rently navigable waters, waters that have been navigable in the past, and waters that can be improved to become navigable, as well as nonnavigable tributaries that affect such navigable waters. The Water Quality Act of 1965³³ required both that states impose quality standards for interstate waters and that they impose pollution controls to achieve those standards, without requiring methods of enforcing the standards against individual sources of pollution. 4

In 1972, Congress adopted the Federal Water Pollution Control Act, 35 including means for regulating pollution stemming from point sources, requiring point source polluters to obtain permits, and giving the EPA responsibility for establishing federal effluent standards for point sources of pollution, administering the permit program, and enforcing the federal standards.³⁶ Section 303 of the 1972 Act directed states to set and implement water quality standards, continuing the effort initiated in 1965 under the Water Quality Act. 37 The Act authorized the EPA Administrator to set such standards when a state failed to do so³⁸ and required the Administrator to identify pollutants suitable for maximum daily load measurement correlated with the achievement of water quality objectives.³⁹ For federally impaired waters that failed to meet the Act's standards, states had to develop TMDLs for all pollutants identified by the EPA Administrator as implicated in the determination of such loads.⁴⁰ The states were required to submit to the EPA lists of the waters identified and

^{32.} See Murchison, supra note 31, at 528-29 (citing Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1, 197 (1824)); The Daniel Ball, 77 U.S. (10 Wall.) 557, 563 (1870); United States v. Holt State Bank, 270 U.S. 49, 57 (1926); United States v. Appalachian Elec. Power Co., 311 U.S. 377, 417 (1940); Okla. ex rel. Phillips v. Guy F. Atkinson Co., 313 U.S. 508, 525-26 (1941).

^{33.} Water Quality Act of 1965, Pub. L. No. 89-234, 79 Stat. 903.

^{34.} See Murchison, supra note 31, at 532.

^{35.} Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (codified as amended at 33 U.S.C. §§ 1251-1387 (2000)).

^{36.} Clean Water Act § 402, 33 U.S.C. § 1342; see also Houck, supra note 30 at 14. The Federal Water Quality Amendments of 1972 were not foreordained. The product of years of wrangling in both houses of Congress, they were resisted strongly by most states, by a wide spectrum of industry, and by high-level members of the Administration up to and including the President. They were enacted because of an unusual spectrum of bipartisan Senate leadership and strong public opinion.

Id.

^{37.} Clean Water Act § 303(a), 33 U.S.C. § 1313(a).

^{38.} Id. § 303(b), 33 U.S.C. § 1313(b).

^{39.} Id. § 303(a)(2), 33 U.S.C. § 1313(a)(2).

^{40.} Id. § 303(d), 33 U.S.C. § 1313(d).

the TMDLs.⁴¹ Employing an important vertical linkage, the Act allowed states that obtained approval from the EPA to assume responsibility for administering this discharge permit program by demonstrating that they could satisfy the requirements of the federal law.⁴²

The TMDL program, like many federal environmental programs, is directive. It controls lower order influences from the top down. The program not only requires states to designate impaired waters and establish maximum daily loads of federally designated pollutants that may enter such waters, but also imposes on states an expectation that they will effectively manage both point source and nonpoint source pollution to achieve the established standards. This set of requirements is fraught with administrative headaches and political difficulty. Principal among these is the fact that many of the pollutants to be controlled under the TMDL program emanate largely from development projects and land uses that are independently regulated by local land use laws and agencies. 44

With more than 40,000 listed waters and at least 20,000 TMDLs ahead, EPA has clearly striven to construct an interlocking TMDL program from many parts, from statutory provisions short on detail and TMDL experience limited in scope One is reminded of the Agency's approach in the early 1970s, under the even less elaborate mandate that it improve and maintain the nation's air quality, in constructing the nonattainment and prevention of significant deterioration program of the CAA. With the Agency having thought its way through the mechanics of meeting these statutory goals, subsequent legislation served largely to ratify and fund the product. So may it be with TMDLs.

HOUCK, supra note 30, at 191-92. Houck praises the preambles to the TMDL and stormwater regulations—"these are seminal documents... invaluable repositories of information," id. at 191—and writes that

[f]aced repeatedly with policy choices, the Agency has proposed solutions on the high end of implementation By and large, the choices are driven by that option which, while respecting the rights of the states and dischargers to select their own remedies, will most likely achieve the pollution abatement goals of the Act and, in particular, of § 303(d).

^{41.} Id.

^{42.} Id. § 402(b), 33 U.S.C. § 1342(b); see Craig, supra note 31, at 122. "Congress also sought to induce state participation in this federal regulation program; the CWA is 'a program of cooperative federalism' through which Congress, pursuant to the Commerce clause, 'offer[s] States the choice of regulating . . . according to federal standards or having state law pre-empted by federal regulation." Id. (internal citations omitted).

^{43.} Clean Water Act § 303, 33 U.S.C. § 1313.

^{44.} See EPA, National Section 303(d) List Fact Sheet, available at http://oaspub.epa.gov/waters/national_rept.control. The EPA promulgated the TMDL regulations (and the Phase II regulations) in 1999. Writing at that time, Oliver Houck said of the TMDL regulations:

Because nonpoint sources of TMDL pollutants come from development regulated by local land use agencies, the states inevitably must require their local governments to amend their land use regulations to meet TMDL standards or preempt local authority to the extent necessary to meet those standards through more direct state action. In most states, this type of preemption, although legal, violates long-established political norms that respect the municipal home rule tradition.

Largely because of these practical and political difficulties, the EPA is not effectively implementing the TMDL program.⁴⁵ A revised rule was issued in July, 2000 which required states to develop clearer lists of waters that failed to meet quality standards, obliged them to detail the reductions needed in both nonpoint and point source pollutants, and required them to establish timetables for achieving water quality standards.⁴⁶ This rule did not require regulatory controls to be imposed on nonpoint source pollution, demonstrating the political sensitivity to local home rule even in

Id at 192. Reporting to Congress in 2001 on the scientific basis of the TMDL program, the National Research Council of the National Academy of Sciences noted that successful implementation of the best available science into the TMDL program "is directly related to the provision of adequate personnel and financial resources for data collection, management, and interpretation and for the development of sufficiently detailed and stratified water quality standards." The National Academy of Sciences' National Research Council Report on Assessing the Scientific Basis of the Total Maximum Daily Load Approach to Water Quality Management: Hearing Before the Subcommittee on Water Resources and Environment of the Committee on Transportation and Infrastructure, 107th Cong. 8 (2001). Congress subsequently decided not to adopt appropriations that would ensure effective implementation of the TMDL Program.

45. See Murchison, supra note 31, at 577-78:

States and EPA have developed a large number of TMDLs, and that trend is likely to continue until the deadlines established in various schedules and consent decrees have passed. But EPA is unlikely to face judicial pressure to prepare additional TMDLs.... Without the threat that EPA will be forced to prepare the TMDLs if a state fails to act, one reasonably can expect that states will be slow to prepare them for waters where achievement of water quality standards will require politically difficult choices. Moreover, the courts have shown little inclination to force implementation of TMDLs once they are established. Without such judicial pressure, EPA is unlikely to require states to establish regulatory limits on nonpoint sources for waters where control of those sources is necessary to achieve water quality standards.

Id. For a summary of the status of TMDL litigation by state as of October 1, 2004, see EPA, TMDL LITIGATION BY STATE, http://www.epa.gov/owow/tmdl/lawsuit1.html (last visited June 11, 2006).

46. 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, 65 Fed. Reg. 43,586 (July 13, 2000) (codified at 40 C.F.R. pts. 9, 122, 123, 124, 130).

Washington.⁴⁷ Despite this forbearance, the rule never became effective. Congress buried a postponement of the rule's effective date to late 2001 in a military appropriations bill, and the current federal administration granted an extension until the spring of 2003.⁴⁸ In March of that year, the EPA revoked the rule⁴⁹ and has not since explained its future intentions regarding the TMDL program.⁵⁰

49. 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 and Planning Regulation, 68 Fed. Reg. 13,608 (Mar. 19, 2003) (codified at 40 C.F.R. pts. 9, 122, 123, 124, 130). According to an EPA press release,

The 2000 rule was determined to be unworkable based on reasons described by more than 34,000 comments and was challenged in court by some two dozen parties. Congress stopped the rule's implementation, and the National Academy of Sciences' National Research Council (NRC) found numerous drawbacks with the July 2000 rule

An overwhelming majority of comments (more than 90 percent) supported EPA's proposed action to withdraw the July 2000 rule. These comments came from a broad cross-section of stakeholders, including agricultural and forestry groups, business and industry entities and trade associations, state agencies, professional associations, academic groups and private citizens.

EPA Press Release, Final Withdrawal of 2000 TMDL Takes Effect; Existing Rules Make Progress Cleaning Up Impaired Waters (Mar. 13, 2003), available at http://yosemite.epa.gov/opa/admpress.nsf/b1ab9f485b098972852562e7004dc686/601385d1f 25da12485256ce800824d38?OpenDocument.

50. According to a Feb. 16, 2005 update to the EPA website,

TMDLs continue to be developed and completed under the current rule, as required by the 1972 law and many court orders. The regulations that currently apply are those that were issued in 1985 and amended in 1992 (40 C.F.R. pt. 130, § 130.7). These regulations mandate that states, territories, and authorized tribes list impaired and threatened waters and develop TMDLs.

^{47.} Federal courts have upheld the authority of the EPA and the states to identify waterways polluted by nonpoint sources and to identify TMDLs for pollutants that may enter these waterways under § 303(d) of the Clean Water Act. See, e.g., Pronsolino v. Marcus, 91 F. Supp.2d 1337, 1352-56 (N.D. Cal. 2000), aff'd by Pronsolino v. Nastri, 291 F.3d 1123 (9th Cir. 2002), cert. denied by Pronsolino v. Nastri, 539 U.S. 926 (2003).

^{48.} Military Construction Appropriations Act, 2001, tit. 2, ch. 8, Pub. L. No. 106-246, 114 Stat. 511, 567 (2000) ("None of the funds made available for fiscal years 2000 and 2001 for the Environmental Protection Agency may be used to make a final determination on or implement any new rule relative to the Proposed Revisions to the [NPDES] Program and Federal Antidegredation Policy."). See also 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. 53,044 (Oct. 18, 2001) (codified at 40 C.F.R. pts. 9, 122, 123, 124, 130).

The EPA's Stormwater Management Program is based on the traditionally accepted notion that the jurisdiction of the federal government reaches and includes the regulation of point sources of pollution.⁵¹ The regulations apply to Municipal Separate Stormwater Sewer Systems (MS4s) that collect stormwater and direct it, through effluent pipes, into nearby surface waters.⁵² Under the TMDL program, the role of local governments is only indirectly implicated in the pollution prevention program, whereas in the Stormwater Management Program it is explicit. The Stormwater Management Program's effort to regulate the effluents of municipal MS4s' attempts to control the nonpoint sources of pollution at the local level that have evaded EPA so far under the TMDL program. Nonpoint source pollution originating from a small condominium project near a federally impaired surface water resource escapes regulation today under the EPA's TMDL program but will be subject to regulation under its Stormwater Management Program.⁵³

Such regulatory sleights-of-hand are the result of our limited understanding of intergovernmental jurisdiction and call for a more settled, logical, and integrated approach such as that demonstrated in Parts III and IV below. Part III describes the EPA's Stormwater Management Program authorized by the Clean Water Act, which appears to be a top-down, standard-driven, directive federal environmental protection system. Part IV then describes how this regulatory initiative is being administered in New York in a manner that respects the state's durable understanding of local home rule through its sensitive integration of federal standards, state administration, and local implementation. First, in Part II, we review some theoretical notions that are helpful in framing the debate over governmental regulation of the use of the land by private actors.

EPA, Overview of Current Total Maximum Daily Load—TMDL—Program and Regulations, http://www.epa.gov/owow/tmdl/overviewfs.html (last visited June 11, 2006).

^{51.} The Clean Water Act requires a permit under the National Pollutant Discharge Elimination System for the discharge of pollutants from a point source into the waters of the United States. See 33 U.S.C. §§ 1341(a), 1342. See also supra notes 6 and 7 and accompanying text.

^{52. 33} U.S.C. § 1342(p).

^{53.} See infra Part III, "The Phase II Stormwater Management Program: How the Federal System Links with State and Local Police Powers."

II. CAPTURE, CHOICE, COLLAPSE, AND REFLEXIVE LAW: THE THEORETICAL UNDERPINNINGS OF INTEGRATED FEDERALISM

The disorderly nature and partial successes achieved by the nation's legal system for controlling land use and protecting the environment raise serious questions about the prevailing approach to governmental intervention in private affairs. A particularly relevant assertion is that regulatory systems are subject to "capture" by those whose interests are regulated.⁵⁴ Capture theory originally grew out of the study of the limitations of administrative agencies and the comparative advantages of other institutions such as courts and legislatures to avoid capture.⁵⁵ Some scholars perceive that even these institutions are subject to capture.⁵⁶ Others suggest that the administrative state itself is incapable of properly directing private behaviors and that its activities should be substantially curtailed to allow individuals, as rational actors, to pursue their own private interests and leave ordering to the marketplace.⁵⁷ Still others believe that governmental regulation causes regulated private actors to behave differently and in ways that threaten the legitimacy of public

^{54.} See generally Thomas W. Merrill, Capture Theory and the Courts: 1967-1983, 72 Chi.-Kent L. Rev. 1039 (1997). Referring to administrative agencies that regulate private-sector interests, Merrill notes, "[t]he principal pathology emphasized during these years was 'capture,' meaning that agencies were regarded as being uniquely susceptible to domination by the industry they were charged with regulating." Id. at 1043.

^{55.} Id. at 1051-52.

^{56.} See Zygmunt J.B. Plater, Environmental Law and Three Economies: Navigating a Sprawling Field of Study, Practice, and Societal Governance in Which Everything is Connected to Everything Else, 23 Harv. Envil. L. Rev. 359, 378 (1999) ("Sometimes the problem is that the legislature itself is captured by the marketplace, as happened during the 104th Congress."); see also David Schoenbrod, Saving our Environment from Washington (2005).

^{57.} See Merrill, supra note 54, at 1053.

Finally, in the period from roughly 1983 to the present, a new conception of the administrative state, which I will call the public choice conception, has been ascendant Today, the 'public interest' is seen as something more likely to emerge from the decentralized decisions of individually rational actors pursuing their own interest, i.e., through market ordering, than as coming about either through government regulation guided by human reason or government regulation guided by a more genuinely representative administrative process.

regulation.⁵⁸ The importance of this insight is evident in its corollary operating principle that regulators should carefully consider the impact of regulations on private parties and include their interests in drafting, enforcing, monitoring, and reviewing regulations.⁵⁹

"Reflexive law" theory is a response to the real prospects of private sector capture of the regulatory system and to disintegrated federalism. It focuses on the procedural dimensions of regulatory systems, shifting the emphasis from the establishment of rights and duties to embracing the tendency of individuals and firms to act in accordance with established norms.⁶⁰ This tendency is particularly strong where the regulatory decision-makers have broad discretion. The attempts of federal law to affect local land use agencies' behavior—and that of watershed developers in the TMDL and Stormwater Management programs necessarily implicate the highly discretionary local regulatory regime and those affected by it. Well-entrenched norms such as the importance of local democracy and the historical hegemony of local governments regarding local development explain the resistance of local governments to attempts to control their behavior from the top down by higher levels of government.⁶¹

Reflexive law draws its name from the basic notion that law can encourage "self-critical reflection" within institutions, such as governments and private firms, about their performance.⁶² This theory promotes the creation of legal procedures, such as the re-

^{58.} See Michael P. Vandenbergh, The Private Life of Public Law, 105 COLUM. L. Rev. 2029 (2005).

^{59. &}quot;[C]oncerns about the ability of industry to capture agencies and growing skepticism about the value of expertise contributed to the development of an alternative [theoretical] model. In the new interest-representation model, the legitimacy of agency action was thought to be a function of agencies' ability to replicate the electoral process through interest group representation." *Id.* at 2036.

^{60.} See, e.g., Tim Iglesias, Housing Impact Assessments: Opening New Doors for State Housing Regulation While Localism Persists, 82 Or. L. Rev. 433, 496-501 (2003).

^{61. &}quot;[R]egulation of land use [is] a function traditionally performed by local governments." Hess v. Port Auth. Trans-Hudson Corp., 513 U.S. 30, 44 (1994).

^{62.} See Eric W. Orts, Reflexive Environmental Law, 89 Nw. U. L. Rev. 1227, 1254-55 (1995); see also Gunther Teubner, Substantive and Reflexive Elements in Modern Law, 17 Law & Soc'y Rev. 239 (1983). (The term "reflexive law" appeared as early as 1983 in an article by German sociologist Gunther Teubner that examined the evolution of legal systems. He saw a reflexive legal system as a valuable means of mediating the complex nature of contemporary society and as an improvement over earlier concepts of law that primarily set rules governing the interactions of autonomous private actors or directed private and public actions to accomplish legally established outcomes).

quirement of an environmental impact statement, that cause institutions and actors to reflect on the impacts of what they propose to do. At the local level, procedures that cause local land use agencies and regulated developers to identify and mitigate the impact of proposed developments on surface water quality implement reflexive law theory. So do state requirements that encourage local governments to examine whether their land use regulations properly mitigate the impact of land development on water quality and to assess the costs of failing to have proper protections in place. The emphasis of reflexive law devices is on creating norm-consistent procedures that cause public officials to actively consider matters of public importance, rather than on standard-based regulations that trigger comply-or-defy responses.⁶³

In his book Collapse: How Societies Choose to Fail or Succeed, Jared Diamond reflects on the costs to society caused by ignoring early warnings of long-term problems, such as those caused by major natural disasters, surface water pollution, and other serious damage to the physical environment.⁶⁴ He describes how ancient and contemporary societies either disappeared or were significantly damaged by rigid adherence to cultural values in the face of drastic environmental change.⁶⁵ His paradigmatic story is that of the Norse colonies in Greenland that lasted for 450 years and then vanished.⁶⁶ They simply and fatally assumed that Greenland's ecosystem would perpetually support their approach to livestock-

^{63.} See Iglesias, supra note 60, at 496-510. Iglesias suggests the intriguing idea of requiring local governments to conduct periodic housing impact analyses as a method of causing local officials, in their established role as guardian of local residents' interests, to reexamine their land use laws to determine whether they meet existing housing needs. The procedures would require localities themselves to generate information regarding housing needs, evaluate the impacts of current zoning standards on housing affordability, and consider the adoption of workable methods of facilitating the provision of needed housing. Without disturbing the local officials' understanding of their traditional role in such matters, the legal requirement introduces new norms into the local conversation: the importance of meeting local housing needs and the ability of local regulation to influence the provision of affordable housing. "Enforcement" of the norm of meeting housing needs is influenced and directed by the participants in the impact analysis itself: residential developers, senior citizen groups, housing advocates, employers in need of work force housing, etc. Local officials are more likely to yield to these influences than to top-down directed inclusionary zoning mandates simply because they arise within a legal system that conforms to and respects their normative understanding of their role and the proper process of decision making.

^{64.} Jared Diamond, Collapse: How Societies Choose to Fail or Succeed (2005).

^{65.} Id. at 523.

^{66.} Id. at 178-276.

based agriculture. They cleared meadows, pastured cattle, grew hay to feed their livestock during long winters, dug sod to build comfortable houses, and ate beef as their principal staple. They continued these practices even after evidence of environmental catastrophe was upon them.⁶⁷ In this and many other stories, Diamond provides sobering evidence that human beings, pursuing their self-interests, are not rational actors and, in the normal course of events, their unmediated interactions in the market-place do not insulate societies from environmental devastation or, in some cases, extinction.

Despite the evidence he marshals regarding the prospects of societal collapse, Diamond ends his book on an optimistic note. Societies, as the book's title implies, can choose to succeed. One of the choices necessary for success, he posits, is to make a commitment to "practice long-term thinking, and to make bold, courageous, anticipatory decisions at a time when problems have become perceptible but before they have reached crisis proportions." He writes, somewhat tentatively, that "courageous, successful, long-term planning also characterizes some governments and some political leaders, some of the time."

Is this what occurred when Congress adopted the CZMA and DMA and then linked them as a framework for disaster mitigation and coastal protection? How can the legal system be used to encourage latter-day Norse to reflect upon their circumstances? Can the law be structured to integrate and order the conflicting influences of various levels of government and the forces of the private market? Do we leave critical environmental and land use choices to the serendipitous consequences of unmediated actors in the marketplace, support top-down, command-and-control federal solutions, or develop a legal system that mediates governmental and

^{67.} Diamond describes the work of anthropologists who explored these abandoned settlements and found the bones of newborn calves, mother cows, and pets consumed during the final winter. From this he concludes that, until the bitter end, the Norse clung to their environmentally destructive diet despite the abundance of seals and fish which were consumed by the Inuits who inhabited the same environment. Hunting seal, consuming the meat, and burning the blubber for heat and light were anathema to the Norse. Their commitment to European agriculture and the raising and consumption of beef was a cultural value too dear to be abandoned. Diamond discusses the "landscape amnesia" that must have beset the Norse. As a result, they forgot to pay attention to what they were doing to their environment. In the end, they starved to death. *Id.* at 425-26.

^{68.} Id. at 522.

^{69.} Id. at 523.

private sector influences? How do we conduct the long-term planning and choice reckoning that characterize successful societies?

Here again, reflexive law concepts provide clues for proceeding. Substantive legal standards and rules are indispensable within the legal system, and they may be adopted at the federal, state, or local level. These standards, however, are most effectively implemented within a somewhat decentralized system that encourages agencies and private actors to respond and conform their behavior in ways appropriate to their unique situation. Such a process is evident in the unique manner in which the federal Stormwater Management Program is being implemented in New York State, as discussed below in Part IV. To fully understand New York's responsive law approach, it is first necessary to describe the federal system of stormwater management and regulation and how it became linked with state and local authority to regulate land use.

III. THE PHASE II STORMWATER MANAGEMENT PROGRAM: HOW THE FEDERAL SYSTEM LINKS WITH STATE AND LOCAL POLICE POWERS

A. Background on Federal Stormwater Regulations

Pursuant to its authority under the Clean Water Act,⁷¹ the EPA promulgated regulations establishing a Stormwater Management Program, to be implemented in two phases. Phase I regulations affected medium and large local governments that own and operate Municipal Separate Storm Sewer Systems (MS4s).⁷² Beginning in 1990, these municipalities were required to implement stormwater management programs as a means of controlling polluted discharges from their stormwater sewer systems.⁷³

^{70.} See Gunther Teubner, Law as an Autopoietic System 67 (1993). [S]ubstantive legal norms remain indispensable. It is only that the process of their production and justification has to give way to a 'socially adequate' proceduralization.... The question is whether we are dealing with command and control regulation through state economic policy or with regulation through decentralized mechanisms of self-regulation. In the latter case, the law of the state regulates only the contextual conditions.

^{71. 33} U.S.C. § 1342(p) (2000).

^{72.} National Pollution Discharge Elimination System Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. 47,990 (Nov. 16, 1990) (codified at 40 C.F.R. pts. 122, 123, 124).

^{73.} Id.

In 1999, the EPA promulgated the second phase of its MS4 regulatory program.⁷⁴ Under the Phase II regulations, local and state governments are required to enact and enforce stormwater management programs regulating illicit discharges stormwater runoff from development projects.⁷⁵ Phase II regulations apply to local governments that operate storm sewer systems that discharge to federally protected waters.⁷⁶ The regulations require affected localities to reduce discharges from areas of new development, including construction activities that disturb land areas as small as one acre. 77 Phase II regulates operators of municipal stormwater systems within "urbanized areas."78 Typically, the municipality itself is the system operator. On the basis of the 2000 census, New York, for example, has over 425 municipalities automatically obliged to control stormwater runoff under the Phase II program, including 16 urbanized areas. which include 27 cities, 203 villages, and 195 towns.⁷⁹

The Phase II regulations directly implicate the means by which local governments regulate private land use and construction activities. By attempting to direct the exercise of this local land use authority, the regulations challenge the historical and political understanding that the federal government may not interfere with state and local prerogatives to regulate private land use. The Clean Water Act itself expresses Congress's policy "to

^{74.} National Pollutant Discharge Elimination System—Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, 64 Fed. Reg. 68,722 (Dec. 8, 1999) (codified at 40 C.F.R. pts. 9, 122, 123, 124).

^{75.} See 40 C.F.R. § 122.26(a)(9)(i) (2004).

^{76.} Id. § 122.26(b)(16).

^{77.} Id. § 122.34(b)(4).

^{78.} Id. § 122 apps. F-I.

^{79.} See N.Y. Dep't of Envil. Conservation, List of NYS Municipalities Automatically Subject to Phase II Regulations, http://www.dec.state.ny.us/website/dow/urbanlst.htm (last visited June 11, 2006); see also N.Y. Dep't of Envil. Conservation, FINAL Designation Criteria for Identifying Regulated Municipal Separate Storm Sewer Systems (MS4s) (Jan. 2003), http://www.dec.state.ny.us/website/dow/MS4crit.pdf.

^{80.} The only way that local governments can feasibly control stormwater runoff is to adopt new regulations altering their process of reviewing land development.

^{81.} See, e.g., Gregory v. Ashcroft, 501 U.S. 452, 457-58 (1991).

[[]O]ur Constitution establishes a system of dual sovereignty between the States and the Federal Government.

The Constitution created a Federal Government of limited powers. "The powers not delegated to the United States by the Constitution . . . are reserved to the States respectively, or to the people." U.S. Const., Amdt. 10. The States thus retain substantial sovereign authority under our constitutional system. As James Madison put it:

recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this chapter."82 The tension between the state and local power to regulate nonpoint sources of pollution and the power of Congress to regulate them indirectly under the Stormwater Management Program was addressed by the Ninth Circuit Court of Appeals. In Environmental Defense Center v. EPA,83 the court upheld the EPA's statutory authority to regulate municipal MS4s and rejected a Tenth Amendment challenge to the Phase II regulations brought by affected municipalities, among others.84

B. EPA's Phase II Regulations

Phase II regulates small MS4s as well as small construction activities, i.e., activities disturbing between one and five acres of land.⁸⁵ Pursuant to these rules, municipalities that operate regulated MS4s⁸⁶ are required to obtain either an individual or a general National Pollutant Discharge Elimination System (NPDES) point source discharge permit.⁸⁷ The Phase II program requires affected municipalities to reduce pollution to the maximum extent practicable (MEP), protect water quality, and comply with applicable water quality requirements of the Clean Water Act.⁸⁸

[&]quot;The powers delegated . . . to the federal government are few and defined. Those which are to remain in the State governments are numerous and indefinite The powers reserved to the several States will extend to all the objects which, in the ordinary course of affairs, concern the lives, liberties, and properties of the people, and the internal order, improvement, and prosperity of the State."

Id. (quoting The Federalist No. 45, at 292-93 (James Madison) (Clinton Rossiter ed., 1961)).

^{82.} Clean Water Act § 101, 33 U.S.C. § 1251(b).

^{83.} Envtl. Def. Ctr., Inc. v. EPA, 344 F.3d 832 (9th Cir. 2003), cert. denied, 541 U.S. 1085 (2004).

^{84.} See infra Part III.C., "Federal Jurisdiction Sustained: Environmental Defense Center v. EPA."

^{85. 40} C.F.R. § 122.26(b)(15) (2006).

^{86.} Regulated small MS4s are designated automatically according to EPA population and density criteria, or may be designated under additional criteria developed by the NPDES permitting authority. See id. § 122.32(a)-(b).

^{87.} See id. §§ 122.21, 122.26(a)(3), 122.28(b)(3), 122.33(a)-(b).

^{88.} Id. § 122.34(a).

Best management practices are utilized to achieve the goal of reducing pollutants in stormwater.⁸⁹ To ensure that municipal operators meet the MEP standard, the EPA regulations set forth six minimum control measures that a locally-adopted management plan must include.⁹⁰ These include public education⁹¹ and participation⁹² programs, pollution prevention programs,⁹³ initiatives to detect and eliminate illicit discharges,⁹⁴ and programs that mitigate stormwater runoff from construction sites⁹⁵ and regulate runoff due to post-construction land uses.⁹⁶

The effect on local land use autonomy is evident in the fine print of the regulations. Local governments are required to adopt erosion and sedimentation control laws,⁹⁷ establish site plan review procedures for projects that will impact water quality,⁹⁸ inspect construction activities,⁹⁹ and adopt enforcement measures.¹⁰⁰ Post-construction runoff controls are also required for development and redevelopment projects.¹⁰¹ Redevelopment is defined to include any change in the footprint of existing buildings that disturbs greater than one acre of land.¹⁰²

Further, non-structural best management practices noted in the federal regulations include comprehensive planning and zoning ordinances that guide growth away from sensitive areas and that restrict industrial and other intense land uses that compromise water quality. Zoning measures targeted by the regulations include requiring buffer strips, designating riparian preservation zones, and maximizing open space. It is evident that the federal Phase II program is clearly designed to influence, if not direct, affected municipalities in their use of traditional land use control techniques.

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89. Id.
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^{90.} Id. § 122.34(a)-(b).

^{91.} Id. § 122.34(b)(1).

^{92.} Id. § 122.34(b)(2).

^{93.} Id. § 122.34(b)(6).

^{94.} Id. § 122.34(b)(3).

^{95.} Id. § 122.34(b)(4).

^{96.} Id. § 122.34(b)(5).

^{00. 10. 3 122.01(0)(0).}

^{97.} Id. § 122.34(b)(4)(ii)(A).

^{98.} Id. $\S 122.34(b)(4)(ii)(D)$.

^{99.} Id. § 122.34(b)(4)(ii)(F).

^{100.} Id.

^{101.} Id. § 122.34(b)(5)(i).

^{102.} Id.

^{103.} See id. § 122.34(b)(5)(iii).

^{104.} Id.

C. Federal Jurisdiction Sustained: Environmental Defense Center v. EPA

In 2003, the EPA's authority to issue its Phase II regulations was challenged on Tenth Amendment grounds in *Environmental Defense Center v. EPA*. ¹⁰⁵ Municipal petitioners contended that the agency lacked statutory authority to require local governments to regulate private land uses to achieve federal objectives ¹⁰⁶ and that the regulations require state and local governments to regulate their own citizens in violation of the Tenth Amendment. ¹⁰⁷

The petitioners included municipal organizations, industrial organizations, and environmental organizations. Municipal petitioners asserted that the EPA lacked the requisite statutory and constitutional authority to compel small MS4s (consisting predominantly of state agencies and local governments) to regulate third parties. Description Environmental petitioners contended that the regulations contained inadequate regulatory and public oversight and that they were "arbitrary and capricious" in regard to the specific pollutants monitored. Industrial petitioners argued that the EPA acted arbitrarily and capriciously in determining which sources to regulate, and that the EPA's retention of authority to designate future sources for stormwater regulation was improper. In 2003, the Ninth Circuit issued its decision, essentially affirming the EPA's regulations against the complaints of all three groups of petitioners.

Noting that most MS4s are operated by municipal governments, and that "the drainage of a city in the interest of the public health and welfare is one of the most important purposes for which the police power can be exercised," the Municipal Petitioners argue that requiring operators of small MS4s to implement "through ordinance or other regulatory mechanism" the regulations required by the Minimum Measures contravenes the Tenth Amendment.

^{105.} Envtl. Def. Ctr., Inc. v. EPA, 344 F.3d 832 (9th Cir. 2003), cert. denied, 541 U.S. 1085 (2004).

^{106.} *Id.* at 843. "The Municipal Petitioners assert that the statutory command in Clean Water Act § 402(p)(6) that EPA develop a 'comprehensive program to regulate' small MS4s did not authorize a program based on NPDES permits." *Id.*

^{107.} Id. at 844-45.

Id. at 846 (internal citations omitted).

^{108.} Id. at 843.

^{109.} Id.

^{110.} Id.

^{111.} Id.

^{112.} Id. at 840 ("We remand three aspects of the Rule concerning the issuance of notices of intent under the Rule's general permitting scheme, and a fourth aspect

The court addressed the municipal petitioners' argument that the "measures regulating illicit discharges, small construction sites, and development activities unconstitutionally compel small MS4 operators to regulate third parties,"113 in violation of the Tenth Amendment. The court relied upon two factors to find that the Phase II rule did not contravene the Tenth Amendment. First, the Phase II rule regulates only local governments that choose to engage in activities that are legitimately regulated by the federal government.¹¹⁴ Second, the regulations are not coercive because they provide local governments alternatives to regulating private construction activities. 115 These include not discharging into federal waters, constructing artificial wetlands or other detention or diversion structures, sealing off the entry points of illicit discharges, or simply requesting private dischargers to seek their own federal pollution discharge elimination permits.116

Municipal petitioners had argued that the practical difficulties involved in these alternatives would force them to adopt a regulatory approach, indirectly compelling them to administer a federal regulatory program in contravention of the Tenth Amendment.¹¹⁷ In response, the court stated that

while the federal government may not *compel* them to do so, it may *encourage* States and municipalities to implement federal regulatory programs The crucial proscribed element is co-

concerning the regulation of forest roads. We affirm the Rule against all other challenges.") The initial decision, issued in January, 2003, stated that under the Clean Water Act operators of small MS4s must not only comply with "the general effluent limitations of the Clean Water Act" but also "reduce the discharge of pollutants to the maximum extent practicable." Envtl. Def. Ctr., Inc. v. EPA, 319 F.3d 398, 424 (9th Cir. 2003), vacated, 344 F.3d 832 (9th Cir. 2003). The substitute opinion, issued in September, 2003, states only that under the Clean Water Act operators of small MS4s must "reduce the discharge of pollutants to the maximum extent practicable." 344 F.3d 832, 853.

- 113. 344 F.3d 832, 846.
- 114. Id. at 847.
- 115. Id. at 848.

Any operator of a small MS4 that wishes to avoid the Minimum Measures may seek a permit under § 122.26(d) [the Alternative Permit option], and . . . nothing in § 122.26(d) will compel the operator of a small MS4 to implement a federal regulatory program or regulate third parties Therefore, by presenting the option of seeking a permit under § 122.26(d), the Phase II Rule avoids any unconstitutional coercion.

Id.

116. John R. Nolon, Local Land Use: Decision Expands Federal Government's Role, 229 N.Y.L.J. 5 (Apr. 16, 2003).

117. 344 F.3d 832, 846.

ercion; the residents of the State or municipality must retain 'the ultimate decision' as to whether or not the State or municipality will comply with the federal regulatory program. 118

Simply because the alternatives to disposal in federal waters may be more expensive does not affect the ability of municipalities to choose not to discharge into federal waters.

As a result of this decision, local governments operating MS4s are required to develop, implement, and enforce programs that mitigate stormwater runoff from construction activities and new and redevelopment projects. This, then, requires affected local governments to regulate nonpoint sources of pollution which they can only do by using their traditional land use control authority.

This judicial endorsement of the Phase II Program helped the EPA clear a huge hurdle: the claim that requiring municipalities to regulate nonpoint source pollution is beyond the jurisdiction of a federal agency. Whether the Phase II Program clears the additional political and administrative hurdles that have obstructed the effective enforcement of the TMDL program may well depend on how the Phase II Program is administered at the state level.

IV. NEW YORK STATE CASE STUDY

The New York State Department of Environmental Conservation (DEC) incorporated the Phase II regulations as part of its State Pollutant Discharge Elimination System (SPDES) program and issued regulations in January 2003 that impose significant new obligations on MS4 operators as point source polluters. These regulations pose many new challenges for local governments, not the least of which is that local land use ordinances must be updated to reflect the new requirements.

^{118.} Id. at 847 (internal citations omitted) (emphasis in original).

^{119. 6} N.Y.C.R.R. pt. 750-1 (2003), available at http://www.dec.state.ny.us/website/regs/subpart750_01.html.

^{120.} Acting through the DEC, New York State collaborated closely with regional EPA agents to draft two types of pollution discharge permits—construction site permits and MS4 permits—that primarily govern stormwater pollution control in the state. The permits require the development and implementation of erosion and sediment control regulations and of procedures for site plan review and site inspection and enforcement. See N.Y. Dep't of Envtl. Conservation, SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), Permit No. GP-02-02 (January 8, 2003) Part IV(C)(4)(b) [hereinafter Permit No. GP-02-02], available at http://www.dec.state.ny.us/website/dow/MS4Permit.pdf; see also N.Y. Dep't of Envtl. Conservation, Stormwater Phase II Permits, http://www.dec.state.ny.us/website/dow/PhaseII.html (last visited June 11, 2006).

Shortly after the issuance of its Phase II stormwater regulations, officials within the DEC resolved to chart an innovative course to secure local compliance. This approach was informed by their understanding that to require local governments to amend their zoning and land use regulations violates a bedrock political norm: local home rule. ¹²¹ In this respect, the fact that EPA regulations mandate state compliance and the federal courts back the legality of the point source requirements was incidental to the political and programmatic reality: Forcing local governments to act was destined to meet local resistance and jeopardize its success.

Within DEC, the Division of Water was responsible for Phase II implementation in the state.¹²² The Division decided to begin by providing needed technical assistance to local governments. It drafted a Model Stormwater Management and Erosion and Sediment Control Ordinance as a guide to the local governments required to comply with Phase II requirements.¹²³ The model law incorporated by reference two documents that contain stormwater control standards and best management practices. These include the New York State Stormwater Design Manual,¹²⁴ promulgated in 2001 with the technical assistance of the Center for Watershed Protection, and the New York State Standards and Specifications for Erosion and Sediment Control, issued in 2004.¹²⁵

With grant funding secured from the New England Interstate Water Pollution Control Commission, the DEC retained a law school land use center to review the model ordinance for sensitivity to local land use practice and protocols in New York.¹²⁶ This

^{121.} See N.Y. Const. art IX § 2.

^{122.} See N.Y. Dep't of Envtl. Conservation, Div. of Water, New York State DEC Stormwater Information, http://www.dec.state.ny.us/website/dow/mainpage.htm (last visited June 11, 2006).

^{123.} N.Y. Dep't of Envil. Conservation, Stormwater Management Guidance Manual for Local Officials: Model Local Law for Stormwater Management and Erosion and Sediment Control, app. 1 (2004), available at http://www.dos.state.ny.us/lgss/stormwaterpub/pdfs/stormwater11.pdf.

^{124.} Ctr. for Watershed Prot., New York State Stormwater Management Design Manual (Aug. 2003), available at http://www.dec.state.ny.us/website/dow/toolbox/swmanual/#Downloads.

^{125.} Capital Dist. Reg'l Plan. Comm'n, Phase II Water Quality Information: New York State Standards and Specifications for Erosion and Sediment Control (2004), http://cdrpc.net/WQ/erosandsed.html (last visited June 12, 2006).

^{126.} The Land Use Law Center at Pace University School of Law. The author is the founder, former director, and current counsel to the Center. Any assertions in this part not supported by citations are based on the author's December 16, 2005 interview with Sean F. Nolon, Director of the Land Use Law Center, who coordinated the Phase II and Estuary initiatives described here.

review led to significant changes in the ordinance to ensure that it was consistent with current local procedures for reviewing and approving development proposals that generate stormwater runoff. As amended, the model fit the practices employed by most New York cities, towns, and villages to review site plan and subdivision proposals and applications for special use permits.

The DEC also administers the Hudson River Estuary Program, ¹²⁷ which is charged with protecting the Hudson River, a significant estuary that originates north of Albany and flows through the Hudson River Valley discharging into the Atlantic Ocean south of Manhattan. The Estuary Program was established to protect the ecosystems of the extensive watersheds of tributary streams and rivers flowing into the Hudson River. This objective, like that of stormwater management, depends on the cooperation of local governments through the exercise of their state-delegated land use control. The officials who operate the Estuary Program immediately saw the wisdom of coordinating its efforts with that of the stormwater program. This initiative linked the state's Estuary Program with the state's administration of the Phase II Program in a clever and practical way.

With funds provided through state environmental bond acts, this same law school land use center was retained by the DEC to help it create a demonstration program in communities in a critical watershed area of the state. The objective of the program was to create a process leading to the adoption of the model ordinance by strategically placed municipalities and to use this success as a model for the ordinance's adoption in other Hudson River

^{127.} Established under the Hudson River Estuary Management Act, N.Y. ENVIL. CONSERV. LAW § 11-0306 (Consol. 2006). The program area runs from the Troy Dam south to the Verrazano Narrows. See N.Y. Dep't of Envtl. Conservation, The Hudson River Estuary Program, http://www.dec.state.ny.us/website/hudson/hrep.html (last visited June 12, 2006).

^{128.} See Press Release, New York State Executive Chamber, Governor: \$1 Million to Protect and Enhance Hudson River (October 1, 2003), available at http://www.ny.gov/governor/press/03/oct1_4_03.htm.

New York State has committed approximately \$190 million for implementation of priorities in the Hudson River Estuary Action Plan, including funds from the \$1.75 billion 1996 Clean Water/Clean Air Bond Act and the Environmental Protection Fund (EPF). Since 1995, more than \$1.4 billion in Bond Act funding has been committed statewide for more than 2,000 important environmental projects. In that same time, more than \$1 billion in EPF funding has been committed to more than 3,600 environmental projects throughout the State.

Estuary communities. 129 The communities selected were the Town of Wallkill and the City of Middletown, located within the town but with their own independent legal jurisdiction and land use control. These communities contain a significant portion of the watershed of the Wallkill River, which runs from the New Jersey Highlands in northern New Jersey to the northeast through Rockland, Orange, and Ulster counties and then discharges into the Hudson River ninety miles north of Manhattan. 130 It was important to the DEC that the demonstration communities were located adjacent to each other jurisdictionally to create another critical linkage: Stormwater respects no municipal boundaries, and for it to be controlled effectively, intermunicipal cooperation is required. The DEC requires that MS4 operators ensure that their stormwater discharges do not increase the discharge of pollutants regulated under the TMDL program into any water listed as impaired under section 303(d) of the Clean Water Act, advancing, through this additional linkage, the objectives of the TMDL initiative. 131

The law school land use law center began its work by collecting and analyzing all of the land use control laws of the city and the town to confirm that the model ordinance conformed to local practices for the issuance of special permits and the approval of site plan and subdivision applications. Working with stormwater outreach specialists of the DEC, the center made a number of direct contacts with local officials. The center began by contacting the official in charge of the local department of public works asking for reports on the damage caused by previous storm events and the costs to the municipalities of those events. In both cases, the damage and the costs were alarming.

With the help of key local leaders who had graduated from the center's four-day Land Use Leadership Alliance (LULA) Training Program, representatives of the center and DEC secured appoint-

^{129.} The importance of encouraging successes by demonstration communities is explained in John R. Nolon, *Champions of Change: Reinventing Democracy Through Land Law Reform*, 30 Harv. Envil. L. Rev. 1 (2006) The article examines empirical evidence of how change occurs within communities and explains how that change spreads among peers into other communities.

^{130.} WALLKILL RIVER WATERSHED MANAGEMENT PLAN, http://www.shawangunk.org/WaterMgmtPln5-01.doc (last visited June 12, 2006).

^{131.} Permit No. GP-02-02, supra note 120.

^{132.} LAND USE LAW CENTER, CITY OF MIDDLETOWN ZONING ORDINANCE DIGEST (July 2004) (on file with author); TOWN OF WALLKILL ZONING ORDINANCE DIGEST (Aug. 2004) (on file with author).

ments with the chief elected leaders of the city and town to discuss the challenges and opportunities presented by stormwater management and the model ordinance. It held meetings with the planning boards and zoning boards of both communities, whose initial concerns over having to administer yet another law were assuaged by the way in which the model law fit into and complemented their existing regulations. Following this preliminary work, meetings were held with the elected members of the legislative bodies of both communities and follow-up correspondence sent. These meetings were structured as facilitated discussions where the legislators were encouraged to ask questions about the Phase II Program, express their concerns, review the model ordinance, and otherwise discuss the advantages and disadvantages of adopting it.

Initially, the legislators admitted to having little knowledge of the Phase II Program and requirements. After these meetings, concerned over the practical effects of stormwater runoff to the municipalities and impressed by the positive recommendations of their engineering consultants, both legislatures decided to begin the process of formal adoption of the model ordinance. The leaders of the town government, in fact, saw advantages in making their local law more stringent than the state model because of an unfavorable circumstance they had experienced with particular sites. They added a provision, among others, that withholds a certificate of occupancy from any new development until the developer has successfully established vegetative cover on all disturbed soils. The city, in turn, agreed to adopt this town-initiated amendment to ensure consistency in its regulation of the commu-

^{133.} The legal authority for local compliance with Phase II regulations, the details of the model ordinance, and benefits of adopting it were summarized in a memorandum submitted to the Middletown City Council on Oct. 14, 2004 (on file with the author). It begins "The Land Use Law Center is pleased to assist the City of Middletown as it moves forward with its Stormwater Phase II compliance program" (emphasis added). The Center also drafted a Resolution of Legislative Intent for the city, which was adopted. The resolution expressed the Council's intent to adopt the model law, directed the steps precedent to that adoption, and committed the city to coordinating its stormwater management program with that of the Town of Wallkill. Similar technical assistance and information was provided to public officials in the Town of Wallkill (source on file with author).

^{134.} Memorandum from Comm'n for Conservation of the Env't to Town Bd. of the Town of Wallkill, app. § XIII (June 14, 2005), available at http://www.townofwallkill.com/pdf/WallkillManor.pdf.

nities' common watershed. As of this writing, the process of adopting the amended model law is progressing smoothly in both communities.

Additional horizontal and vertical linkages exist within the DEC stormwater management program. It provides financial assistance to local governments for Water Quality Improvement Grant Projects as an incentive for compliance and a further means of achieving locally desired water quality. 136 The DEC has hired and deployed Stormwater Outreach Specialists to assist local officials in the adoption of stormwater pollution programs and regulations. These specialists conduct workshops for local officials explaining the requirements and intricacies of the state and federal regulations, the benefits to municipalities of complying, and the success of the demonstration projects. The state has also produced guidebooks and other materials to aid municipal officials in understanding, adopting, and implementing stormwater regulations. 137 The DEC Division of Water is acutely aware of the TMDL Program.¹³⁸ By requiring MS4s that discharge into impaired section 303(d) water bodies to conform their stormwater management programs to the requirements of existing or future approved TMDLs, 139 it has created a critical linkage administratively at the state level between federal environmental initiatives. 140

^{135.} See id. at app. § X(B)(2) ("The Planning Board may require the following additional information . . . a) A wetland delineation report in accordance with the standards set forth in this ordinance (identification of hydrophytic vegetation.").

^{136.} See Press Release, N.Y. Dep't of Envtl. Conservation, DEC: Grants Available for Water Quality Improvement Projects (Jan. 28, 2005), http://www.dec.state.ny.us/website/press/pressrel/2005/200507.html (last visited June 13, 2006) (discussing the \$20 million that the DEC is making available to municipalities for water quality improvement projects).

^{137.} See N.Y. Dep't of Envtl. Conservation, Stormwater Toolbox for the SPDES General Permit for Stormwater Discharges from Construction Activities, http://www.dec.state.ny.us/website/dow/toolbox/toolbox.htm (last visited June 13, 2006).

^{138.} The DEC General Permit itself describes TMDLs as "a key tool in the work to clean up polluted waters." Permit No. GP-02-02, supra note 120, at n.6; see also N.Y. Dep't of Envtl. Conservation, Total Maximum Daily Loads (TMDLs), http://www.dec.state.ny.us/website/dow/tmdl.html (last visited Feb. 25, 2006) (discussing requirements of Clean Water Act § 303(d)(1)(C)).

^{139.} Permit No. GP-02-02, supra note 120; The N.Y. State FINAL 2004 Section 303(d) List of Impaired Waters Requiring a TMDL (Sept. 24, 2004), available at http://www.dec.state.ny.us/website/dow/303dlist.pdf.

^{140.} See generally N.Y. Dep't of Envtl. Conservation, New York State "Phase II Storm Water Program" Frequently Asked Questions (2003), http://www.dec.state.ny.us/website/dow/toolbox/ms4toolbox/ms4faqjuly.pdf (last visited June 13, 2006).

V. CONCLUSION: INTEGRATED FEDERALISM

Reflexive law regimes, in addition to integrating the influences of multiple levels of government, involve the private actors who are affected by governmental regulation. In the administration of the New York Stormwater Management Program, this is accomplished through reliance on municipal implementation. By emphasizing the adoption of a local law, the DEC program incorporates the entire apparatus of local land use law decision-making in the administration of a federal environmental law program. New York's local land use legal system relies on work sessions of the legislative body, open meetings, public notices of pending legislation, public hearings, local agency review of regulated projects, and the right to challenge adopted laws in the courts: a full spectrum of opportunities for citizen and stakeholder participation.¹⁴¹

The neighbors who object to stormwater-generating projects and the developers who propose them are included in and benefited by these processes. In reflexive law terms, local officials are influenced by the reflections of all those directly affected by stormwater controls. Local land use laws in New York, and in most states, must conform to the comprehensive plan, which requires citizen participation in its creation. The adoption of local laws, such as the New York model ordinance, requires citizen participation, which ensures the exposure of local lawmakers to the opinions and interests of the full range of affected parties. Leven the approval of a regulated project, whose compliance with the newly adopted stormwater management law is at issue, requires open meetings, public notice, and public hearings: addi-

Id.

^{141.} See John R. Nolon, Well Grounded: Using Local Land Use Authority to Achieve Smart Growth 95-96 (2001).

The procedures that . . . [local governments] must follow are governed . . . by state statutes that delegate . . . the power to award variances, approve site plans and subdivisions, or award special use permits. These statutes must be consulted to determine whether a public hearing is required, how notice of the hearing is to be given, the time by which a decision must be rendered, how the decision is to be filed, and who may appeal a local decision to the courts. The local legislature may establish additional procedures that must be followed by local boards.

^{142.} N.Y. Town Law § 272-a (Consol. 2006); N.Y. Village Law § 7-722 (Consol. 2006); N.Y. Gen. City Law § 28-a (Consol. 2006).

^{143.} See N.Y. Dep't of State, Div. of Local Gov't Svcs., Adopting Local Laws in New York State, 13-14, available at http://www.dos.state.ny.us/lgss/pdfs/locallaw.pdf.

tional opportunities to reflect on the impacts and effects caused in the fine tuning of stormwater protection. 144

At the outset, this article raised questions regarding governmental jurisdiction over stormwater management, disaster mitigation, wetlands controls, transportation planning, and a host of other critical land use and environmental matters. Katrina's lament concerns the federal system and our flawed search for a preeminent authority in these matters. Federal jurisdiction is limited, both constitutionally and practically: There are certain distances beyond which Congress cannot or will not travel to protect national interests in water quality. State legislators, too, although vested with plenary police powers to protect state interests of all sorts, often do not act in the absence of a federal influence or will not pay the political price of requiring local governments to adopt onerous land use regulations. Meanwhile, local officials know that their much-touted home rule powers do not give them control over the many intermunicipal and regional influences that frustrate their efforts to create quality communities. 145

As administered by the New York State Department of Environmental Conservation, a state agency acting in response to a federal mandate, the Stormwater Protection Program created new opportunities for exercising local power that local officials came to view as advantageous to them and their constituents. As implemented, the state program respected local autonomy and went on to inform and assist local officials in complying with a federal initiative. By embracing the local regulatory system as its implementation device, the program opened itself up to influence by neighbors incensed by recent flooding of their properties, local and regional watershed and environmental leaders, and regulated landowners and developers.

This integrated approach to addressing local, state, and federal interests in water quality is succeeding because it wastes no

^{144.} See Nolon, supra note 141; see also N.Y. Pub. Off. Law, §§ 100-111 (Consol. 2006). New York has adopted an environmental review statute modeled on the federal National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321-4347 (2000). New York's State Environmental Quality Act (SEQRA) is found at N.Y. Envil. Conserv. Law §§ 8-0101 to 8-0117 (Consol. 2006). The SEQRA regulations are found at 6 N.Y.C.R.R. pt. 617, available at http://www.dec.state.ny.us/website/regs/part617. html. New York is one of the relatively few states in which local governments "are authorized or required to conduct environmental reviews." Nolon, supra note 141, at 183.

^{145.} See John R. Nolon, The Erosion of Home Rule Through the Emergence of State-Interests in Land Use Control, 10 Pace Envil. L. Rev. 497, 562 (1993).

time arguing over supremacy, states rights, and home rule, but rather problem solves using the resources of all levels of government: federal standards, state technical assistance, and local regulatory systems. It demonstrates how to help localities understand their role as an essential component in a larger, integrated system of law.

This exposes a seeming blind spot in the TMDL and some other federal environmental programs: the critical importance of embracing local participation, especially where the historic authority of localities to regulate land use is implicated. Local governments are the first responders when disaster strikes and have been delegated significant legal authority to regulate land development. In the last decade, the advent of local environmental law has demonstrated the potential of local regulators as effective partners in protecting environmental functions and natural resources. This insight suggests that federal regulatory schemes should complete the vertical dimension of a national framework of law by working closely with local governments.

The New York success with stormwater management, however, would not have occurred but for the stimulus of the federal government through its promulgation of stormwater management regulations, its cooperative federalist partnership with the state, and its expectation that state and local governments are coequally interested in the matter at hand. The current emphasis on a new type of federalism, ¹⁴⁷ which argues against strong action by the central government for fear of damaging local autonomy, gravely underestimates the importance of federal standards and imperatives in an integrated national system of law.

^{146.} See John R. Nolon, In Praise of Parochialism: The Advent of Local Environmental Law, 26 Hary. Envil. L. Rev. 365, 372-73 (2002).

^{147.} See generally David J. Barron, A Localist Critique of the New Federalism, 51 Duke L.J. 377 (2001) (advocating "[t]he notion that more governmental decisions could and should be handled locally.").