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MISSISSIPPI RIVER SYMPOSIUM

The Mississippi River Basin: A National Treasure, a National Challenge

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[T]he basin of the Mississippi is the BODY OF THE NATION. All the other parts are but members, important in themselves, yet more important in their relations to this.[1]

I. INTRODUCTION

At the beginning of his classic book, *Life on the Mississippi*, Mark Twain recounts that a fellow riverboat captain dubbed the Mississippi River "the Great Sewer."[2] That was in 1883, before the River was subjected in any significant way to the tons of nutrients, chemical fertilizers, industrial and municipal waste, and pesticides that today flow into the River from homes, lawns, gardens, farms, and businesses. One can only imagine what words Mr. Twain would use to describe the Mississippi today.

Yet, in spite of the abuses the River has suffered over the years, the Mississippi retains much of its majesty. It continues to be a critical resource to the nation, to the states within its watershed, and to the tens of millions of people who rely on the River for drinking water, fishing, hunting, boating, transportation of goods, and thousands of other commercial and recreational uses. In light of its importance not only to the myriad communities within its watershed, but to the nation as a whole, finding a solution to the environmental issues confronting the River must be a national priority.

This Article will outline the complex array of problems plaguing the historic Mississippi River Basin, and will then describe two federal initiatives that address those problems on a watershed basis. Part I of the Article begins by describing the importance of the watershed to the nation, and then summarizes the environmental

1. MARK TWAIN, LIFE ON THE MISSISSIPPI at xiii (Dodd, Mead, & Co. 1968).
2. *Id.* at 2.

threats to the Basin's well-being. Part II discusses the Federal Clean Water Act, the most important legal authority available to the federal government in its efforts to address the problems in the Mississippi Basin. It also describes the ways in which federal and state agencies responsible for addressing the problems in the basin interact, especially in the context of enforcement. Part III outlines the most recent federal initiative—the President's Clean Water Action Plan—to address water pollution issues that have not been, or cannot be, addressed under the Clean Water Act. It then discusses the relevance of that initiative, which structures efforts to address water quality problems on a watershed basis, to the problems in the Mississippi. Finally, part IV describes another federal initiative, the Mississippi River Basin Initiative, that implements the watershed approach of the Clean Water Action Plan in an enforcement context specifically to address pollution in the Mississippi basin.

Throughout this Article, several things should become clear: first, the size of the river basin and the complexity of its problems challenge, and even to some extent defy, the traditional approaches to addressing water pollution, and second, the only way to address those problems is on a national scale. However, national does not mean just federal. The national effort required to solve the Mississippi's problems cannot succeed without the sustained and committed cooperation of states, tribes, local communities, businesses, and citizens. These efforts, however, must fit into a structure commensurate with the scope and magnitude of the problems. That type of structure is what the Clean Water Action Plan and the Mississippi River Basin Initiative provide. Although these initiatives will not solve the Mississippi's problems, perhaps they can at least, after so many years, allow us to begin to make some tangible progress in our efforts to heal this "body of [our] nation."[3]

II. THE ISSUES TO BE ADDRESSED

A. The Mississippi River Basin

Stretching 2,350 miles, from its source in Lake Itasca, Minnesota, to its mouth at the Gulf of Mexico below New Orleans, the Mississippi River is the third longest river in the world.[4] The River and its tributaries drain about forty-one percent of the continental United States, approximately 1.2 million square miles—

3. *Id.* at xiii.

4. *See* ANN ROBINSON & ROBBIN MARKS, RESTORING THE BIG RIVER: A CLEAN WATER ACT BLUEPRINT FOR THE MISSISSIPPI 3 (1994).

the second largest drainage basin of any river in the world.[5] Twenty-seven percent of the population of the United States lives within that drainage area.[6]

The basin, of course, includes numerous rivers besides the mainstream Mississippi itself. When the Mississippi joins the Missouri and Illinois Rivers just above St. Louis, Missouri, the volume of water in the Mississippi doubles; and when the Mississippi intersects the Ohio River at Cairo, Illinois, the volume of water in the Mississippi doubles again.[7] Taken all together, the Mississippi and its tributaries receive waters from significant portions of at least twenty-five states—from Montana to Alabama, Pennsylvania to New Mexico—and parts of Canada.[8]

The role that the Mississippi River and its tributaries play in sustaining the nation and its resources is enormous. Approximately eighteen million people get their drinking water from the Mississippi or its tributaries.[9] The Mississippi is a migration corridor for forty percent of the waterfowl and shorebirds in North America, and the habitat in which more than 118 species of fish and almost fifty species of mussels are found, including a number of endangered species.[10] The presence of this wildlife is responsible for the more than $100 million per year that is spent on sport fishing in the Upper Mississippi alone and the $58 million that is spent every year on waterfowl hunting along the Mississippi River.[11] More than twelve million visitor days are spent on the Mississippi each year, generating revenue along the Upper Mississippi and Illinois Rivers of $1.2 billion, and creating 18,000 jobs in the boating, fishing, and sightseeing industries.[12]

Thanks in part to the work of the United States Army Corps of Engineers (the Army Corps), the Mississippi and its tributaries are critical and relatively stable navigational corridors. As early as 1824, Congress authorized work to keep the Mississippi navigational, and

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5. *See id.*

6. *See* CONTAMINANTS IN THE MISSISSIPPI RIVER, 1987-92: U.S. GEOLOGICAL SURVEY CIRCULAR 1133, at 10 (Robert H. Meade ed.) (1995) [hereinafter CONTAMINANTS IN THE MISSISSIPPI RIVER].

7. *See id.* at 17.

8. *See id.* at 16.

9. *See* ROBINSON & MARKS, *supra* note 4, at 4.

10. *See* UPPER MISSISSIPPI RIVER CONSERVATION COMM., FACING THE THREAT: AN ECOSYSTEM MANAGEMENT STRATEGY FOR THE UPPER MISSISSIPPI RIVER 3 (1993) [hereinafter UPPER MISSISSIPPI RIVER CONSERVATION COMM.].

11. *See* ROBINSON & MARKS, *supra* note 4, at 6. This area includes the stretch of the river above Cairo, Illinois.

12. *See* UPPER MISSISSIPPI RIVER CONSERVATION COMM., *supra* note 10, at 3.

by 1878 Congress was funding Army Corps construction of a large system of dams to help maintain a four and one half foot shipping channel in the river.[13] Over the course of the twentieth century, Congress authorized the construction of thousands of restraining structures along the River, including locks, dams, levees, and dikes, to assure the reliability of the River as a nine-foot deep navigational corridor, and to inhibit the River's tendency to meander and flood.[14] By 1980, 126 million tons of commodities, particularly grain, coal, chemicals, and petroleum products, were being shipped along the River, and that number has continued to grow.[15]

The significance of the River can be gauged at least in part by the disruption that was caused to the people who live in the Mississippi River Basin by the Great Flood of 1993. The flood covered 15 million acres in nine states and forced the evacuation of 54,000 people.[16] Total direct damages from the flooding are estimated at $15-20 billion.[17] The estimates of indirect costs are less precise, but these costs must be certainly very large as well. The towing industry alone estimated that it lost at least $3 to 4 million daily because barge traffic was halted, and that figure does not include the losses incurred by the agricultural and business interests that were either unable to ship or forced to scramble to find alternative transport.[18] Many farmers lost their entire 1993 harvest, along with massive volumes of topsoil. The fertilizer and other pollution that was washed into the River, and eventually into the Gulf of Mexico, caused massive algal blooms in the Gulf and significantly affected the coastal ecosystem along Louisiana, around Florida, and up the eastern seaboard to at least as far north as North Carolina.[19] In Iowa alone, tens of thousands of people could not work because there was insufficient uncontaminated water for the ordinary activities of life.[20] Across the Mississippi River Basin, nearly 500,000 individuals had no drinkable water.[21]

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13. *See id.* at 4.
14. *See id.* at 4-5.
15. *See* ROBINSON & MARKS, *supra* note 4, at 6.
16. *See* NATIONAL OCEANIC & ATMOSPHERIC ADMIN., U.S. DEP'T OF COMMERCE, SPECIAL NOAA REPORT: COASTAL OCEANOGRAPHIC EFFECTS OF SUMMER 1993 MISSISSIPPI RIVER FLOODING 24 (Michael J. Dowgiallo, ed., 1994).
17. *See id.*
18. *See id.* at 25.
19. *See id.* at 30-76.
20. *See id.* at 24-27.
21. *See* NATIONAL FISH AND WILDLIFE FOUND., THE MISSISSIPPI RIVER INITIATIVE PART II: AFTER THE FLOOD 1 (1994).

None of these measures of the River's importance, however, begins to quantify the value of the River as one of the country's key cultural and historical symbols. Through the Lewis and Clark expedition, the River shaped our sense of our country, our frontiers, and our westward development.[22] Through the books of Mark Twain, it grew into one of the most prominent of nature's icons in a land charmed by numerous majestic panoramas. The Mississippi is as associated with the American musical genres of jazz and the blues, which grew up in the river cities of New Orleans and Memphis,[23] as it is with the Civil War strategy that split the South in half and firmly established Ulysses Grant as one of the nation's greatest generals.[24] As much as it has always given us water to drink and a channel for our commerce, the River continues to sustain our cultural and historical heritage. Though no real dollar figure can be associated with these latter roles, they nonetheless must be considered in any fair assessment of the River's value.

B. Problems Affecting the Mississippi River Basin

The importance of the Mississippi River system is matched and even exceeded by the complexities of the problems confronting it. Although the enactment of the Clean Water Act[25] has improved the quality of the water in the Mississippi River system over the last twenty-five years, a number of indicators, including the following, confirm that major problems remain to be addressed: declining numbers of fish and fish species, degraded fish and bird habitat along the entire course of the River, evidence of contamination in the tissue of fish and shellfish, erosion of banks and channels, degraded water quality, drastically diminished wetland areas adjacent to the River, massive washout of sediments into the River channel, and the hypoxia zone in the Gulf of Mexico.[26] The principal causes of these

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22. See A. Dan Tarlock, *The Missouri River: The Paradox of Conflict Without Security*, 2 GREAT PLAINS NAT. RES. J. 1,1 (1997).

23. *See* Richard Harrington, *Rolling on a 'River': Smithsonian Project Rides High on Music's Mississippi Currents*, WASHINGTON POST, Jan. 3, 1999, at G01.

24. *See* Dan Friedman, *The History Development and Interpretation of the Maryland Declaration of Rights*, 70 TEMP. L. REV. 945, 950 (1997).

25. 33 U.S.C. §§ 1251-1387 (1997).

26. *See* ROBINSON & MARKS, *supra* note 4, at 7-16. The hypoxia zone is an area in the Gulf of Mexico, originating at the mouth of the Mississippi River, where the oxygen levels in the water are so low as to limit or even preclude certain forms of life. *See id.* at 7. Although the science of the hypoxia zone remains preliminary, it appears that the zone results from nutrient loadings from the Mississippi Basin. *See id.* at 8. The nutrients, most of which probably have their source in fertilizer washout from farmland in the upper reaches of the River's drainage, create an unnatural growth of algae, which in turn exerts an excessive oxygen demand on the

problems—if not the specific contribution of particular causes to particular effects—are not difficult to identify.

Probably the largest systemic cause of problems in the Mississippi River is the series of control structures constructed and maintained by the Army Corps.[27] By eliminating the natural ebb and flow cycle of seasonal flooding, these structures have destroyed or drastically altered natural habitats within the river and along its banks.[28] Dams create pools of standing water where once the natural flow would keep a steady cleansing current moving through the system, and levees isolate the channelized River from the surrounding floodplain that previously provided species diversity and essential animal and plant habitats.[29]

An ancillary effect of the Army Corps' control structures has been the gradual loss of much of the watershed's contiguous wetlands. With the River carefully channeled and the floodplain narrowly constricted, manmade development now can run right up to the water's edge.[30] As a result, wetland areas in the states bordering the main stem of the River have declined by two-thirds from their original acreage, and the area of forested wetlands has declined even more sharply, to below twenty percent in many states along the River.[31] In addition to providing a unique and particularly fertile habitat for many animal and plant species, the wetlands in the Basin formerly performed the critical function of serving as a filter for the water that washed off the land into the River.[32] Without that filter, sediment washout and nonpoint source pollution have become the primary threats to the River's health.[33]

In large part, the alteration of the River channel and banks by navigational and flood control structures exacerbates the leading cause of pollutant loading and sedimentation in the River today: agriculture.[34] The Mississippi and its tributaries flow through some of the most intensely farmed areas in the world. This farming has

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Gulf's waters. *See id.* at 7. The hypoxia zone sometimes covers thousands of square miles. *See id.* Hypoxia and the current response to it are discussed more fully in Interagency Interim Working Group on Hypoxia, Recommendations to Alleviate Hypoxia in the Gulf of Mexico (June 17, 1997) (presentation to the Principals of the Hypoxia Interagency Group) (on file with author).

27. *See supra* notes 13-14 and accompanying text.
28. *See* ROBINSON & MARKS, *supra* note 4, at 14-15.
29. *See id.*
30. *See id.*
31. *See id.* at 13-14.
32. *See id.* at 12-14.
33. *See* UPPER MISSISSIPPI RIVER CONSERVATION COMM., *supra* note 10, at 5-6.
34. *See id.* at 4-6; *see also* ROBINSON & MARKS, *supra* note 4, at 8.

created three principal problems in the Mississippi watershed: excessive nutrient loadings, excessive siltation, and pesticide runoff.[35]

High levels of nutrients, primarily nitrogen and phosphorus, are applied to agricultural land as fertilizer, and are present in the manure generated from animal-raising operations.[36] Studies have shown a clear correlation between the amount of fertilizer applied to the land and the level of nitrogen and phosphorus pollution in rivers and streams.[37] Concentrated animal feeding operations (CAFOs) have similarly been recognized as a leading cause of river pollution in the Basin and throughout the country.[38] In high concentrations, nitrogen and phosphorus can be toxic to humans and animals.[39] Lower concentrations can cause unnatural growth of algae that can depress oxygen and sunlight levels below what is necessary to support life.[40] In addition to polluting the rivers in the Mississippi system as noted above, excessive nitrogen and phosphorus have created a large hypoxia zone in the Gulf of Mexico.[41]

The clearing of land for agriculture, the destruction of wetlands in the River basin, and the Army Corps' navigation projects have all combined to create a critical siltation problem in the River. Tilling activities and deforestation set sediment in motion, and air currents or water runoff carry the sediment to the creeks and tributaries.[42] Lost wetlands no longer filter the sediment as it approaches the River's waters, and the damming and channeling of the River limits the natural flushing of the sediment through the system.[43] The result is the pervasive clouding of the River's waters, choking of the River channel with silt, and filling of the remaining marshes and backwater lakes contiguous to the River, all of which adversely affect native species of plants and wildlife.[44]

Finally, pesticide runoff from agriculture introduces exotic chemicals into the Basin, many of which are acute and/or chronic toxins.[45] Some of the most dangerous pesticides have been taken off

35. *See* NATURAL RESOURCES CONSERVATION SERV., U.S. DEP'T OF AGRICULTURE, AMERICA'S PRIVATE LAND: A GEOGRAPHY OF HOPE, 40-48 (1996) [hereinafter AMERICA'S PRIVATE LAND].
36. *See id.* at 41-43.
37. *See id.*
38. *See id.* at 41-42.
39. *See id.* at 44.
40. *See id.*
41. *See id.*
42. *See* ROBINSON & MARKS, *supra* note 4, at 12-13.
43. *See id.* at 13-14.
44. *See id.* at 12-15.
45. *See id.* at 9-12.

the market, but they remain present in the ecosystem in the tissue of fish and in contaminated bottom sediments.[46] Pesticides currently in use also pose a threat to the River as an ecosystem and as a source of drinking water.[47] By far, the majority of pesticides applied to cropland in the country are used in areas drained by the Mississippi River,[48] and there is a clear correlation between the amount of pesticide applied to farmland and the level of pesticide residue in the adjacent surface waters.[49]

Although the above discussion outlines the current principal systemwide threats to the Mississippi River and its tributaries, other human activities affect the health of the River, including: pollution from municipal and industrial point sources, hotspots of historical toxins in discrete sections of the River system, disruption of the ecosystem by boat motors, the introduction of exotic (non-native) plant and animal species that alter or even overrun the natural ecological balance, discharges from boats or ships, and air deposition of industrial or automobile pollution.[50] Point source pollution in particular, including discharges from CAFOs,[51] can cause serious degradation of water quality on a local scale, in addition to a cumulative negative effect on the overall river system.[52]

III. LEGAL AND INSTITUTIONAL FRAMEWORK

A. The Clean Water Act

The legal authorities used by federal, state, tribal and local governments to protect the Mississippi River watershed include the Clean Water Act (CWA),[53] the Rivers and Harbors Act of 1899 (RHA),[54] the Resource Conservation and Recovery Act (RCRA),[55] the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA),[56] the Clean Air Act (CAA),[57] the Safe

46. *See* CONTAMINANTS IN THE MISSISSIPPI RIVER, *supra* note 6, at 87-102.
47. *See id.*
48. *See id.*
49. *See* AMERICA'S PRIVATE LAND, *supra* note 35, at 45-46.
50. *See* UPPER MISSISSIPPI RIVER CONSERVATION COMM., *supra* note 10, at 6-7; ROBINSON & MARKS, *supra* note 4, at 7-15.
51. The Clean Water Act defines point source to mean "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." 33 U.S.C. § 1362(14) (1997).
52. CONTAMINANTS IN THE MISSISSIPPI RIVER, *supra* note 6, at 115-26.
53. 33 U.S.C. §§ 1251-1387 (1997).
54. *Id.* §§ 401-467.
55. *Id.* §§ 6901-6992K.
56. 42 U.S.C. §§ 9601-9675 (1997).

Drinking Water Act (SDWA),[58] and the Endangered Species Act (ESA).[59] However, the primary statute providing authority to protect water quality in the river is the CWA.

Congress enacted the Federal Water Pollution Control Act Amendments of 1972, commonly referred to as the Clean Water Act,[60] with the objective of "restor[ing] and maintain[ing] the chemical, physical and biological integrity of the Nation's waters."[61] Prior to 1972, clean water protection was left largely to the states, which often did little more than enact water quality standards.[62] Pre-1972 federal involvement in water quality protection was limited to modest efforts to address interstate water quality issues and to meager subsidization of public waste water treatment facilities.[63]

The CWA created a federal permitting system known as the National Pollution Discharge Elimination System (NPDES) that prohibited the discharge of any pollutant to a water of the United States without a permit.[64] Through this new permitting system, Congress attempted to reduce the quantity of pollutants discharged into the nation's waters, primarily by imposing effluent-based limitations on virtually all major municipal and industrial dischargers.[65] For the most part, the effluent limits are technology-based standards.[66] Technology-based standards are standards, generally set by statute or EPA regulations, which require that dischargers treat certain kinds of pollutants or sources of pollutants using the latest and most effective pollution control equipment.[67] Thus, as technology improves, the level of treatment required becomes more stringent.[68]

Recognizing that publicly owned treatment works were a significant and often uncontrolled source of water pollution, Congress

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57. *Id.* §§ 7401-7671q.
58. *Id.* §§ 300f-300j-26.
59. 16 U.S.C. §§ 1531-1544 (1997).
60. 33 U.S.C. §§ 1251-1387. Congress amended this statute significantly in 1977, Pub. L. No. 95-217, 91 Stat. 1566, and 1981, Pub. L. No. 97-117 95, Stat. 1623. Congress enacted the most recent major amendments to the CWA in the Water Quality Act of 1987, Pub. L. No. 100-4, 101 Stat. 7.
61. 33 U.S.C. § 1251(a).
62. *See* Karl S. Coplan, *Refracting the Spectrum of Clean Water Act Standing in Light of* Lujan v. Defenders of Wildlife, 22 COLUM. J. ENVTL. L. 169, 173 (1997).
63. *See, e.g.*, Rivers and Harbors Act of 1899, 33 U.S.C. §§ 401-430 (1997); Federal Water Pollution Control Acts of 1948, 62 Stat. 1155 (1948); Federal Water Pollution Control Act of 1956, 66 Stat. 755 (1956); Water Quality Act of 1965, 79 Stat. 903 (1965).
64. *See* 33 U.S.C. §§ 1342, 1362 (7)-(9).
65. *See id.*
66. *See id.* §§ 1311, 1314.
67. *See id.*
68. *See id.*

also created in the CWA a federal program to fund the construction of water quality improvement facilities to ensure that municipalities and other local governments have sufficient resources to meet the new technology-based standards.[69] Treatment plants around the country were modernized under this program.[70] Indeed, in federal dollars spent, this construction grants program is second only to the National Highway program.[71]

In the Clean Water Act, Congress also included provisions relating to nonpoint source pollution—contaminated runoff resulting from human activities, without a discernible point of discharge—making it a national policy to develop programs for the control of nonpoint source runoff.[72] States are required to prepare area-wide waste plans that assess the impacts of activities typically associated with nonpoint source pollution, including agriculture, forestry, urban construction, and mining activities, and to use that information when determining what controls to impose on pollution sources in order to meet water quality standards.[73] States are also required to identify nonpoint source problems and establish a management program for controlling or abating them.[74] Notably, however, nonpoint source pollution is generally exempt from federal regulation or enforcement under the Clean Water Act.[75] As a result, there are virtually no national standards relating to nonpoint source pollution, and the federal government must depend almost entirely on the states to control such sources.

When it was enacted, the Clean Water Act represented a major shift in authority away from the states to the federal government. In the pre-1972 federal water pollution control laws, Congress treated water quality as a local matter and provided for only limited federal involvement.[76] In 1972, the CWA put the authority for promulgating national standards in federal hands.[77] The CWA allows states and tribes to develop their own water quality laws, but provides that those

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69. *See* 33 U.S.C. §§ 1281-1299, 1381-1397.
70. *See* 2 ENVTL. LAW § 4.23, at 331 (William H. Rodgers, Jr., ed., West 1998).
71. *See id.*
72. *See* 33 U.S.C. § 1329.
73. *See id.* § 1288.
74. *See id.* § 1329.
75. *See, e.g.*, *id.* § 1362(14) (exempting "agricultural stormwater discharges and return flows from irrigated agriculture" from the definition of "point source" under the CWA, and therefore from the NPDES permitting system); Drew L. Kershen, *Agricultural Water Pollution: From Point to Non-Point and Beyond*, 9 NAT. RES. & ENV'T, at 5-6 (1995).
76. *See* Coplan, *supra* note 62, at 173.
77. *See id.*

laws must be at least as stringent as the federal standards.[78] Further, Congress recognized that states and tribes would, in many instances, be better able to implement the CWA, and thus included provisions allowing the United States Environmental Protection Agency (EPA) to delegate to states and tribes the authority for implementing the NPDES program.[79] The CWA requires, however, that those state and tribal programs meet certain standards established and monitored by the EPA.[80]

In order for a state to administer the CWA NPDES program within its borders, the state must submit an application that includes a statement from the state attorney general that the state has adequate authority to carry out the state's duties under the CWA.[81] Following approval by the EPA of the state's program, if the EPA determines that the state is not administering its program in accordance with the CWA, it is required to withdraw approval of the state's program.[82] In any event, in all states, whether they have a delegated program or not, the EPA retains its authority under section 309 of the CWA to bring an enforcement action against dischargers that violate limitations created either by federal law or by the delegated state program whenever the state has not commenced appropriate enforcement action against the violator.[83]

Local governments also have a role in implementing the CWA. In addition to operating publicly owned treatment works—sewage treatment plants—in compliance with their NPDES permits, larger municipalities and local governments are required to have an approved pretreatment program.[84] These pretreatment programs must enable the local government to require that industrial sources that discharge pollutants into the sewer system treat their effluent sufficiently to prevent those pollutants from causing the local government to violate its own NPDES permit.[85]

B. Institutional Framework

The CWA statutory scheme described in the preceding section is mirrored in most of the other major environmental statutes, including

78. *See* 33 U.S.C. § 1370.
79. *See id.* § 1342(b).
80. *See id.*
81. *See id.*
82. *See id.* § 1342(c).
83. *See id.* §§ 1319(g)(6), 1342(h), 1342(i); United States v. Smithfield Foods, Inc., 965 F. Supp. 769, 788-795 (E.D. Va. 1997).
84. *See* 33 U.S.C. § 1342(b)(8); 40 C.F.R. § 403 (1998).
85. *See* 40 C.F.R. § 403.

the RCRA, the SDWA, and the CAA.[86] The multi-tiered governmental structure those statutes create, in which the federal, state, and local governments each have a critical function in the implementation and enforcement of the statutes' provisions, creates a special challenge for government officials seeking to address problems as complex as the Mississippi Basin's. In addition to simply identifying the nature of the problems and the tools available for addressing the problems, the relevant agencies must coordinate their work not only with the other agencies at their own level, but also with the agencies involved at each of the other levels of government. In order to give a sense of the complexity of these issues, Part 1 of this Section reviews the roles of the different layers of government under the CWA, and Part 2 describes the types of enforcement tools potentially available to each of those layers of government.

1. The Relevant Layers of Government

a. The Federal Agencies

Under the CWA, the federal government has developed expertise across the spectrum of environmental issues throughout the country. This expertise gives the federal government a unique role in the implementation of water control programs. Perhaps most importantly, the federal government serves the critical function of assuring a baseline of environmental protection in all states and for all citizens, thereby preventing industry from forcing states to compete for industry presence by agreeing to soften environmental protections: what has been called a "race to the bottom."[87]

This equalizing presence of the federal government across state boundaries is apparent, for example, in the provisions of the CWA that provide for the establishment of "categorical standards."[88] Under section 306 of the CWA, the EPA establishes performance standards for different categories of industry, and those standards, which are intended to assure that industry achieves a minimum level of pollution control based on current technology, apply across the country.[89] Facilities must comply with those standards regardless of the state in which they are located.

In the context of enforcement as well, the federal government is authorized under the CWA to assure that the states prosecute

86. *See* sources cited *supra* notes 53-59.
87. Redwing Carriers, Inc. v. Saraland Apartments, 94 F.3d 1489, 1502 (11th Cir. 1996).
88. *See, e.g.*, 33 U.S.C. § 1316(b).
89. *See id.* § 1316.

violations with at least a certain baseline of vigor. Thus, sections 309(a) and (g)(6) of the CWA provide that the EPA may prosecute violators of federal or state laws promulgated or delegated in accordance with the CWA whenever the state is not "diligently prosecuting an action under a State law comparable to this subsection."[90]

The EPA is not the only federal agency with responsibility for implementing the laws designed to protect our nation's waters. The United States Army Corps of Engineers is responsible for protecting wetlands through the dredge and fill permitting program under section 404 of the CWA.[91] As discussed above, the Army Corps' flood control activities have a significant impact on stream flow and water quality, especially in the Mississippi River Basin.[92] Additionally, the United States Coast Guard is responsible for carrying out many of the CWA section 311 oil and hazardous substance liability provisions, as well as the vessel pollution requirements contained in section 312 of the CWA.[93] Other agencies, such as the United States Department of the Interior—through the Fish and Wildlife Service, the National Park Service, the Bureau of Reclamation, and the Bureau of Land Management—the United States Department of Agriculture, through the Forest Service, and the Department of Commerce, through the National Oceanic and Atmospheric Administration, also play significant roles in addressing the threats to our rivers, lakes, and coastal areas.[94]

b. State and Local Agencies

At the state and tribal level, environmental commissions, wildlife, fisheries, natural resources, agriculture and forestry management agencies, and others are arrayed in as many different

90. *Id.* § 1319(g)(6)(A)(ii). Despite this statutory provision, states often chafe at the idea of federal enforcement in their jurisdictions. Recently, for instance, the Environmental Council of the States (ECOS), an association of state environmental commissioners, adopted a resolution urging the EPA to refrain from taking direct enforcement action in states that have been delegated authority to enforce federal environmental statutes. *See* Environmental Council of States, *Resolution No. 98-9, EPA Enforcement in Delegated States* (visited June 2, 1999) <http://www.sso.org/ecos/resolutions/98-9.htm> (approved Oct. 29, 1998).

91. *See* 33 U.S.C. § 1344(d).

92. *See* text accompanying notes 27-33 *supra*.

93. *See* 33 U.S.C. §§ 1321, 1322.

94. An exhaustive list of the federal authorities relating to river protection is beyond the scope of this article. However, some examples include the Endangered Species Act, 16 U.S.C. §§ 1531-1534 (1997), the Wild and Scenic Rivers Act, 16 U.S.C. §§ 1271-1287 (1997), and the farmland environmental conservation programs implemented by the Department of Agriculture, 16 U.S.C. §§ 3811-3813, 3821-3824, and 3830-3839 (1997).

configurations as there are states and tribes. Each one of these agencies or commissions has different—although often overlapping—pieces of the jurisdictional puzzle comprising responsibility for protecting river resources.[95] As discussed above, much of the authority exercised by the state governments is delegated to them in accordance with federal statutes.[96] Supplementing that delegated authority in most states is a range of unique state and local laws that often provide even more effective tools for addressing water problems.[97] This combination of state and delegated federal authority, combined with the immediacy of the states' relationships to their rivers, gives the states a particularly effective ability to address water quality problems within their boundaries.

At the local level, publicly owned treatment works derive authority and mandates from the CWA to control their own discharges to the rivers and coastal areas, and to regulate the discharges to their sewer systems by industry and residents in their district.[98] Moreover, planning and zoning authorities typically have the most direct control over local land use decisions and often have authorities to address

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95. For instance, in the State of Illinois, the Office of the Attorney General, the Department of Natural Resources, the Illinois Environmental Protection Agency, the Pollution Control Board, and the Department of Agriculture all have responsibilities and authorities which relate to protection of the Mississippi River. *See* 15 ILL. COMP. STAT. 205/4 (West 1998) (outlining the duties of the Illinois Attorney General); 15 ILL. COMP. STAT. 215/2 (Pollution Abatement Act) (authorizing the Illinois Attorney General to bring mandamus actions to stop pollution); 20 ILL. COMP. STAT. 801/5-5 (outlining the duties of the Department of Natural Resource, Office of Water Resources); 415 ILL. COMP. STAT. 5/5 (outlining the duties of the Pollution Control Board); 20 ILL. COMP. STAT. 205/40 (outlining the duties of the Department of Agriculture); *see also* 20 ILL. COMP. STAT. 820/2-1 (providing for the formation of an interagency wetlands committee, comprised of, inter alia, the Departments of Agriculture and Natural Resources and the Environmental Protection Agency).

96. *See* text accompanying notes 76-85 *supra.*

97. *See, e.g.*, IOWA CODE § 657.2(4) (1998) (Iowa nuisance law) (defining private nuisance to include "[t]he corrupting or rendering unwholesome or impure the water of any river, stream or pond, or unlawfully diverting the same from its natural course or state, to the injury or prejudice of others"); Resolution Forming the Mississippi River Corridor/Lake Pontchartrain Sewerage and Pollution Control Authority, 1986 LA. RES. 78; MINN. STAT. §§ 116G.02, .15 (1998) (Minnesota Critical Areas Act of 1973) (declaring a portion of the Mississippi River a "critical area" based upon its important historic, cultural and aesthetic values, and as a natural system performing functions of greater than local significance, and directing Minnesota to assist and cooperate with local units of government in the preparation of plans and regulations for the wise use of the River); WIS. STAT. § 281.35(5)(d)(4) (1998) (stating that, as a condition of approval, "proposed [water] withdrawal[s] and uses will not have a significant adverse impact on the environment and ecosystem of the Great Lakes basin or the upper Mississippi river basin"); *see also* 33 U.S.C. § 1251(g) (stating that it is the policy of Congress that states retain authority to regulate water rights).

98. *See supra* notes 84-85 and accompanying text; Sally Burgin, *Local Governments Taking Charge of Water Quality—Is It a Good Idea?*, NAT. RESOURCES & ENV'T, Spring 1991, at 19, 20.

nuisance conditions related to pollution sources.[99] Local governments are often closest to the problems in their jurisdictions, and can identify sources of pollution more readily than can state or federal agencies.[100] However, localities sometimes have limited resources for controlling such problems, and may not have as a priority the broad and cumulative impacts beyond the local borders of the decisions they make.[101]

2. Enforcement

Complementing the regulatory authority of each level of government is its enforcement authority.[102] The range of enforcement responses can be as varied as the agencies and government types discussed above. But for the most part, enforcement responses at the state and local levels fall into the same categories as those employed at the federal level under the CWA.

a. Criminal Enforcement

Criminal enforcement is generally appropriate when a person or company knowingly or willfully commits an act that violates the law.[103] Under CWA section 309(c), certain negligent violations also can result in criminal penalties, as much as $25,000 for each day of violation and a year imprisonment for a first-time violation.[104] For knowing violations, a violator faces up to $50,000 per day of violation and three years imprisonment.[105] For each of these offenses, penalties

99. *See* Burgin, *supra* note 98, at 19.

100. *See id.*

101. *See id.*

102. Although the primary goal of a strong enforcement program is to ensure protection of human health and the environment in the immediate case, enforcement against a particular violator is also meant to deter other members of the regulated community from failing to comply, and to assure that those that do comply are not at a competitive disadvantage compared with those that do not. A strong deterrent message in an individual case allows the government to leverage its enforcement resources to achieve the broadest compliance. *See, e.g.*, INTERNAL REVENUE SERV., PUB. NO. 1916, DETERMINANTS OF INDIVIDUAL INCOME TAX COMPLIANCE: ESTIMATING THE IMPACTS OF TAX POLICY, ENFORCEMENT, AND IRS RESPONSIVENESS, 35-36 (1996) (finding that for every dollar directly recovered from a person being audited, an additional 11.6 dollars were recovered from other filers because of the ripple effect).

103. *See, e.g.*, 33 U.S.C. § 1319(c)(1997).

104. *See id.* § 1319(c)(1).

105. *See id.* § 1319(c)(2). The CWA also contains enhanced penalties for violations constituting a "knowing endangerment" that places another person in imminent danger of death or serious bodily injury. Under section 309(c), an individual violator convicted of knowing endangerment faces a fine of $250,000 and up to 15 years imprisonment. *See id*. Organizations, such as corporations, are subject to fines of up to $1,000,000 if convicted of knowing endangerment. *See id.* § 1319(c)(3).

and jail terms are doubled for repeat violators.[106] Although the criminal provisions provide for larger sanctions than civil or administrative actions, criminal prosecutions are often more difficult to investigate and litigate, in large part because of the government's burden to prove guilt beyond a reasonable doubt.[107]

b. Civil Judicial Enforcement

Under section 309(b) of the CWA, civil judicial enforcement generally is initiated following a referral to the Department of Justice or U.S. Attorney's Office by the EPA.[108] The prosecuting attorney may ask the court for an order providing "appropriate relief," as well as civil penalties of up to $25,000 per day per violation.[109] The CWA provides a list of factors to be considered in establishing civil penalties.[110] Perhaps the most significant of these factors is the amount of "economic benefit (if any) resulting from the violation."[111] The purpose of directing the government and the court to work to assure that the violator disgorges at least its economic benefit is to prevent persons (including corporations) from enjoying a competitive advantage or profit from their noncompliance.[112]

c. Administrative Enforcement

An administrative agency such as the EPA can also address violations of the Clean Water Act by issuing a civil administrative order, which is an independently enforceable order that sets forth evidence of the violation, requires corrective action by a date certain, and/or imposes penalties.[113] Section 309(g) of the CWA creates two classes of administrative penalties: Class I, which cannot exceed $10,000 per violation or $25,000 total; and Class II, which are

106. *See id.* § 1319(c)(1), (2), (3)(A).

107. *See* Richard J. Lazarus, *The Reality of Environmental Law in the Prosecution of Environmental Crimes: A Reply to the Department of Justice*, 83 GEO. L. J. 2047, 2445 (1995).

108. *See, e.g.*, 33 U.S.C. § 1319(b). The CWA also includes an emergency powers provision, section 504, which authorizes the United States to seek an injunction to stop the discharge of pollutants presenting an imminent and substantial endangerment to the health or welfare of the public. *See id.* § 1364.

109. *See id.* § 1319(b), (d).

110. *See id.* § 1319(d).

111. *Id.* § 1319(d).

112. *See* Charles Garlow & Jay Ryan, *A Brief Argument for the Inclusion of an Assessment of Increased Market Share in the Determination of Civil Penalty Liability for Environmental Violations: Letting Corporations Share the Regulatory Burden of Policing Their Markets*, 22 B.C. ENVTL. AFF. L. REV. 27, 30, 40. (1994).

113. *See* 33 U.S.C. § 1319(g).

assessed at an amount not to exceed $10,000 per violation but which can be as high as $125,000 in total amount.[114]

d. Citizen Suits

Citizen suits, in which citizens act as "private attorneys general," are also a significant component of the enforcement conducted pursuant to the CWA.[115] Almost every federal environmental law provides citizens with a direct cause of action against persons who are violating statutory requirements.[116] Under section 505 of the CWA, citizens are authorized to sue to require the compliance of a person in violation of the act or to require the government to perform a nondiscretionary duty.[117] Section 505 provides that any person may file a lawsuit in federal district court for a violation of the CWA after giving at least sixty-days notice to the federal and state regulatory agencies, and may obtain from the court an order to enforce the applicable effluent standard or perform the nondiscretionary duty, as well as civil penalties.[118] In addition, the court is authorized to award attorney's fees and the costs of litigation to the citizen filing the suit.[119]

3. The Role of Cooperation

Given the multitude of jurisdictions with responsibility for protecting water resources, cooperation among the relevant agencies at differing levels of government is critical. As a result, fora have developed throughout the country for institutionalizing such cooperation in a manner that maximizes the efficiency of the involved agencies, and minimizes duplication of effort.

In the context of enforcement, for example, environmental investigative and enforcement agencies in many states have developed environmental task forces to coordinate their respective

114. *See id.*

115. *See* Gwyn Goodson Timms, *Statutorily Awarding Attorneys Fees in Environmental Nuisance Suits: Jump Starting the Public Watchdog*, 65 S. CAL. L. REV. 1733, 1754 (1992).

116. *See, e.g.*, 16 U.S.C. § 1540(g) (1997) (Endangered Species Act); 42 U.S.C. § 6972 (1997) (Resource Conservation and Recovery Act); 42 U.S.C. § 7604 (1997) (Clean Air Act); 42 U.S.C. § 9659 (1997) (Comprehensive Environmental Response, Compensation and Liability Act).

117. *See* 33 U.S.C. § 1365(a)(1)-(2).

118. *See id.* § 1365(a).

119. *See id.* § 1365; *see also* Gwaltney of Smithfield v. Chesapeake Bay Found., 484 U.S. 49, 64-67 (1987) (requiring that citizens must allege ongoing violations).

efforts.[120] Members of such task forces can include, among others: at the federal level, the U.S. Attorney's office, the FBI, the EPA, the U.S. Fish and Wildlife Service, and the Coast Guard; at the state level, the Attorney General's office, the environmental agency, and the natural resources agencies; and at the local level, the local or county prosecutors, the code inspectors, and the police. By meeting regularly to share information and divide up responsibilities, task forces produce more cases than the individual agencies could working separately and focus resources where there is the most need. Often, legal authorities at the federal, state, or local level may have a particular advantage in a specific context, and the task force can help the agencies send cases to the level of government at which the cases can be handled most effectively.[121]

Because the problems of the Mississippi Basin cut across not just the different levels of government, but across many states and regions, cooperation is particularly critical in the development of solutions there. Although each state and locality are critical to addressing the issues in the Mississippi Basin, a real solution will require broader initiatives. Parts III and IV of the Article discuss two such initiatives.

IV. THE CLEAN WATER ACTION PLAN

A. Background on the Clean Water Action Plan

On October 18, 1997, the twenty-fifth anniversary of the Clean Water Act, Vice President Gore directed that federal agencies develop a plan to achieve the original goal of the CWA of assuring clean, safe rivers, streams, and coastal areas for all Americans.[122] Although regulations and incentives implemented pursuant to the CWA have made "outstanding progress in reducing water pollution and restoring our rivers, lakes and coastal waters, . . . serious water pollution

120. *See* Earl E. Devaney & Michael J. Penders, *United States Perspective on Transboundary Investigations: Cases and Essential Strategies for Interdiction of International Environmental Crime*, NAAG NAT'L ENVTL. ENFORCEMENT J., June 1996, at 26, 27.

121. For example, in Missouri, where in the Eastern District one of the most effective task forces operates, state law provides only misdemeanor criminal penalties for violations of the environmental law. *See, e.g.*, MO. REV. STAT. § 260.211 (1998) (outlining the punishment for the criminal disposition of demolition waste); MO. REV. STAT. § 260.425 (outlining the punishment for hazardous waste management violations). As a result, the task force can help direct cases that merit more severe treatment to the U.S. Attorney. The success of the task force is confirmed by the fact that the state Attorney General's office has designated two assistant attorneys general to handle cases in federal court through the U.S. Attorney's office.

122. *See* Letter from Carol Browner and Dan Glickman to Vice President Albert Gore, Jr. (Feb. 14, 1998), *reprinted in* U.S. EPA, CLEAN WATER ACTION PLAN: RESTORING AND PROTECTING AMERICA'S WATERS, (1998) [hereinafter CLEAN WATER ACTION PLAN].

problems persist."[123] Many of those problems are caused by nonpoint sources, most of which are beyond the scope of the regulatory authority provided in the Act.[124] To address these problems, and to continue to make progress in controlling point source discharges, the Clean Water Action Plan (the Plan) charts a new and coordinated course for the federal government, in cooperation with states, tribes, local governments, citizens, and businesses.[125] The final Plan was issued on February 19, 1998.[126]

Consistent with the Vice President's emphasis on measurable progress toward defined goals, the Plan sets forth about a hundred specific action items that are to be implemented, and provides for periodic reports to chart the implementation of those action items.[127] The action items fall into four broad categories, each of which is worth mentioning given that each contains tools that will be critical to restoring any of the nation's troubled waters, including especially the Mississippi and its tributaries.

1. A Watershed Approach

The first guiding theme of the Plan is a continuation of the shift in the way that water quality problems are addressed. For many years, efforts to address water pollution focused on point source controls, often derived from technology based limits.[128] Now that such controls on point sources are generally in place, the Plan calls for states, tribes, and federal agencies to evaluate the health of the 2000 watersheds around the country, and to measure the progress toward achieving water quality standards in each of those watersheds.[129] In other words, achievement of water quality standards, and not of technology based controls, should be the primary measure of success.[130]

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123. *Id.* In particular, the cover letter from Administrator Browner and Secretary Glickman notes: "States report that about 40 percent of the waters they assessed do not meet water quality goals. About half of the nation's over 2,000 major watersheds have serious or moderate water quality problems." *Id.*

124. *See* 33 U.S.C. § 1362(14) (exempting from the term "point source" and therefore from most of the Act's regulatory scheme "agricultural stormwater discharges and return flows from irrigated agriculture").

125. *See* CLEAN WATER ACTION PLAN, *supra* note 122, at ii.

126. *See id.*

127. *See id.* at 68.

128. *See id.* at i-iv; *see also* 33 U.S.C. § 1311(b) (requiring development of point source effluent limitations "which shall require the application of best practicable control technology currently available").

129. *See* CLEAN WATER ACTION PLAN, *supra* note 122, at ii-iv.

130. *See id.*

With funding proposed by the Plan, states and tribes have already begun the process of assessing the watersheds within their jurisdictions and developing action strategies to address problem watersheds and protect healthy watersheds.[131] The Plan instructs the federal government to provide assistance where needed, and to assure that watersheds are addressed around the country, regardless of where they are located.[132] The Plan also notes that coordinating enforcement on a watershed basis will allow enforcement resources to be used efficiently to achieve water quality goals in troubled watersheds.[133]

2. Enhanced Federal and State Standards

The second theme is that the Plan calls on federal, state, tribal, and local governments to strengthen existing programs and standards. These enhanced standards and programs will focus in particular on assuring that fish and shellfish are safe to eat, that the number of fish advisories falls,[134] that beaches are safe for swimmers and vacationers,[135] and that every American has safe water to drink.[136] Enhanced programs will address the continuing harm to our waterways done by storm water runoff and animal feeding operations.[137]

3. Natural Resource Stewardship

The third theme of the Plan is natural resource stewardship. The federal government owns 400 million acres of land in the country, exclusive of Alaska, and 400 million acres in Alaska.[138] Over sixty-five percent of all threatened and endangered species find protection on federal lands.[139] The Plan directs federal land management agencies to develop a unified policy for managing federal lands to ensure the health of the ecosystems found on those lands and the waters that receive runoff from those lands.[140] Each year, in accordance with the Plan, federal land managers must improve water quality protection for over 2000 miles of roads and trails through the year 2005, and decommission 5000 miles per year by 2002.[141]

131. *See id.* at iii.
132. *See id.* at 87.
133. *See id.* at 18.
134. *See id.* at v.
135. *See id.*
136. *See id.* at 13.
137. *See id.* at v.
138. *See id.* at v-vi.
139. *See id.* at 30.
140. *See id.* at v-vi.
141. *See id.* at vi.

Regarding private lands, the Plan contains a number of action items designed to enhance good stewardship practices by private landowners. Nearly half of the land in the country, exclusive of Alaska, over 900 million acres, is owned by farmers and ranchers.[142] To encourage good stewardship practices on farm and ranch land, the Plan provides a number of incentives for farmers and ranchers.[143] Most notably, the Department of Agriculture "will establish by the year 2002 two million miles of conservation buffers" along the nation's waterbodies.[144]

4. Enhanced Information Accessibility

The fourth theme of the Plan is better and more accessible information. Federal agencies are required to update protocols and monitoring parameters, and to identify areas where there is a need for enhanced monitoring.[145] By the year 2000, the agencies have to model the sources of nonpoint source runoff and track improvements in nonpoint controls.[146] The large amount of information that is collected will be made available on the internet.[147]

B. The Clean Water Action Plan and the Mississippi River Basin

Although the Clean Water Action Plan will guide the efforts of the federal government in addressing water quality problems throughout the country, the Plan will be particularly relevant in the Mississippi River Basin. As discussed above, the Mississippi system suffers from an array of problems, the solutions to many of which are beyond the scope of the regulatory structure established by current federal law.[148] At the same time, the national scope of the problems presented by the Mississippi often appears to require solutions that at least are coordinated at the federal level. The Clean Water Action Plan is designed to provide just that type of coordination.[149]

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142. *See id.*
143. *See id.*
144. *Id.*
145. *See id.* at vii.
146. *See id.* at 55.
147. *See id.* at 70-71.
148. *See* discussion *supra* Part I.
149. The Plan provides, for example, for a National Watershed Forum to "provide a coordinating mechanism for the development of watershed assessment, restoration, and protection efforts." CLEAN WATER ACTION PLAN, *supra* note 122, at 87. The Forum is to include representatives of federal and state agencies, tribal and local governments, "other stakeholder organizations," and "watershed partnerships and citizens." *Id.*

Indeed, in many ways, the Clean Water Action Plan seems ideally suited to address the problems of the Mississippi Basin in the absence of new federal legislation. While recognizing the critical importance of cooperation among federal, state, local, and tribal governments, citizens and businesses, the Plan emphasizes that those cooperative efforts must be guided by standards set at the federal level.[150] Only if everyone across the Mississippi watershed understands the common goals can local priorities be established and local progress be measured.

Perhaps one of the most critical aspects of the Plan as it applies to the effort to clean up the Mississippi and its tributaries is the Plan's emphasis on accountability. By insisting on the establishment of clear standards and constant monitoring to measure progress toward achievement of those standards,[151] the Plan makes it easy to know whether the federal, state, tribal, and local governments are succeeding in securing clean water in each of the 2000 watersheds across the country. Citizens can then decide the extent to which their elected officials should bear responsibility for any failure to do so. Similarly, citizens and the government will be able to gauge more easily whether businesses and farmers are causing disproportionate or illegal levels of pollution,[152] and will then be able to pursue whatever legal or political recourse is available. The Plan notes, in particular, that "[f]ull and fair implementation of clean water programs requires strong compliance and enforcement efforts and a firm commitment to protect all citizens equally."[153]

V. MISSISSIPPI RIVER BASIN INITIATIVE

On September 9, 1998, U.S. Attorney General Janet Reno and EPA Administrator Carol Browner traveled to St. Louis, Missouri, to attend a meeting of federal, state, tribal, and local investigators and prosecutors working on the Mississippi River Basin Initiative (the Initiative).[154] At the conclusion of the meeting, the Attorney General and the Administrator announced the accomplishments of the initiative during the previous year: "54 criminal [convictions], over

150. *See id.* at 12.

151. *See id.* at 68.

152. *See id.* at 68-71 (providing for Internet access to numerous databases on water quality and regulatory compliance).

153. *Id.* at 18.

154. U.S. EPA, RENO AND BROWNER ANNOUNCE SHELL OIL WILL HELP CLEAN UP THE MISSISSIPPI RIVER: ANNOUNCEMENT PART OF COMPREHENSIVE, COORDINATED EFFORT TO STOP POLLUTION OF RIVER THAT HAS RESULTED IN OVER 50 CRIMINAL CONVICTIONS 1 (Sept. 9, 1998) (press release) (on file with author) [hereinafter MISSISSIPPI RIVER INITIATIVE PRESS RELEASE].

$10 million worth of criminal [fines] and restitution and over eight years in prison terms . . . . 18 civil judicial actions worth over 18 million dollars in civil penalties and 93 administrative cases involving 104 facilities worth $900,000 in civil penalties."[155] According to the jointly issued press release, the cases "addressed violations which included illegal dumping from barges, illegal filling of wetlands, spills of oil and other hazardous materials, sewer overflows, and discharges of chemicals such as cyanide, heavy metals and hydrofluoric acid into the Mississippi River or its tributaries."[156]

As noted above, the Clean Water Action Plan structures government efforts to restore the country's rivers, lakes, and coastal areas around watersheds.[157] The Plan specifically provides that a watershed approach should be used to target enforcement resources.[158] The Plan states that, "[b]y coordinating compliance assistance and enforcement activities on a watershed basis, federal, state, and local governments will be better able to address the areas of noncompliance that are presenting a particular threat to the achievement of water quality goals."[159] Though it was initiated before the Clean Water Action Plan was announced, the Initiative implements the watershed approach embodied in the Plan. As described by the Department of Justice and the EPA, the Mississippi River Basin Initiative is a "comprehensive, coordinated federal effort . . . to keep illegal pollution ranging from raw sewage to industrial waste out of the River and to restore the River and surrounding communities to its historic grandeur."[160]

The consistency of the Initiative with the Plan is evidenced, however, not just by its watershed approach to enforcement targeting, but also by the fact that it is a joint effort of many federal and state agencies. The Initiative employs the cooperative efforts of the Department of Justice, the EPA's civil and criminal enforcement groups, the U.S. Customs Service, other U.S. Attorneys, the U.S. Coast Guard, the U.S. Fish and Wildlife Service, state attorneys general, state environmental agencies, the Federal Bureau of Investigation, and other state and local agencies.[161]

155. *Id.*
156. *Id.*
157. *See* CLEAN WATER ACTION PLAN, *supra* note 122, at 87.
158. *See id.* at 86.
159. *Id.*
160. MISSISSIPPI RIVER INITIATIVE PRESS RELEASE, *supra* note 154, at 1.
161. *See id.* at 2.

The collection of agencies and levels of government represented in the Initiative and at the St. Louis meeting is a clear acknowledgment that the Mississippi, like many other watersheds, can be cleaned up effectively only through the coordinated efforts of federal, state, tribal, and local authorities. Attorney General Reno made the same point, with an enforcement emphasis, when she said that "'[w]e have a responsibility to restore and protect [the Mississippi] . . . . To those who think that they can get away with illegally polluting our River, we say this: we will work together at all levels of government to find you, prosecute you and make you clean up the mess you've made.'"[162]

Just prior to announcing the accomplishments of the Initiative in St. Louis, Attorney General Reno and Administrator Browner visited the site of one of the Initiative cases, *United States v. Ray's Automotive*, that the Attorney General said typifies the effectiveness of cooperative efforts among the federal, state, and local governments.[163] In brief, the case involved the illegal dumping of drums of hazardous waste along the banks of the Mississippi River.[164] What is notable is that the case was investigated by the EPA, the St. Louis Trash Task Force, the Missouri Department of Natural Resources, and the U.S. Coast Guard; and it was prosecuted in federal court by a trial attorney from the U.S. Justice Department Environmental Crimes Section, an assistant U.S. Attorney from the Eastern District of Missouri, and an Assistant Attorney General from the State of Missouri, all working out of the U.S. Attorney's office.[165] The owner of Ray's Automotive was sentenced to thirty-seven months in prison and ordered to pay $40,000 in restitution costs to the state, $34,000 in restitution costs to EPA, and up to an additional $90,000 in clean-up costs.[166]

Although, as Attorney General Reno conceded, "'it will take some time to see results,'"[167] given the size and scope of the problems that the Mississippi Initiative is addressing, the approach to enforcement embodied by the Initiative appears to show promise. Working on a watershed basis will allow the federal, state, tribal, and

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162. *Id.* at 1 (quoting Attorney General Reno).

163. *See* Edward L. Dowd, Jr., United States Attorney, Eastern District of Missouri, *Owner of Ray's Automotive is Sentenced to Three Years in Prison on Charges of Dumping Hazardous Wastes* 2 (Apr. 25, 1997) (press release) (on file with author).

164. *See id.*

165. *See id.* at 1-2.

166. *See id.* at 1.

167. Michael Grunwald, *Shell Pays $1.5 Million for Polluting River; U.S. Effects Crackdown on Mississippi*, WASH. POST, Sept. 10, 1998, at A1 (quoting Attorney General Reno).

local agencies to target resources where the need is most acute; and the close cooperation among the governments, as exemplified by *Ray's Automotive*, should allow the resources that are targeted to be used in the most efficient manner. Even if the progress is initially slow, there is good reason to expect that the Attorney General was correct when she said that "'[w]hen you look at the scope of what's happening, it's clear that we're going to have a real impact.'"[168]

VI. CONCLUSION

The Mississippi River and its tributaries have been under siege for more than a century. Even as he was immortalizing the River in his writings, Mark Twain recognized the problems confronting the River, and those problems have become only more pressing in this century. Indeed, the array and complexity of the threats to the River's ongoing viability as a natural resource—in addition to its use as a conduit for transport—are staggering. Although there has been progress in cleaning up the River during the quarter-century of the Clean Water Act's existence, that period of time has also served to highlight the problems that remain, particularly the problems caused by nonpoint source pollution from agriculture and by the channeling of the River's waterway. As the Clean Water Action Plan noted in regard to water resource problems generally, "the nation's clean water program is at a crossroads."[169] In order to continue making progress, "the nation must chart a new course to address the pollution problems of the next generation."[170]

In the Clean Water Action Plan and in the Mississippi River Basin Initiative, the direction of that new course is coming into focus, especially as it relates to cleanup of the Mississippi Basin. In the words of EPA Administrator Carol Browner and Secretary of Agriculture Dan Glickman, "a key element in the Action Plan is a new cooperative approach to watershed protection in which state, tribal, federal, and local governments, and the public first identify the watersheds with the most critical water quality problems and then work together to focus resources and implement effective strategies to solve those problems."[171] Neither the Clean Water Action Plan nor the Mississippi River Basin Initiative has been around very long yet, and the problems they are tackling are daunting; but the approach they

168. *Id.* (quoting Attorney General Reno).

169. CLEAN WATER ACTION PLAN, *supra* note 122, at i.

170. *Id.*

171. Letter from Carol Browner and Dan Glickman to Vice President Albert Gore, Jr., *supra* note 122.

embody shows some hope that the relevant government agencies can reinvigorate their efforts to address the pollution in the Mississippi and restore the River system not just to the condition it was in when Mark Twain plied its waters more than a century ago, but perhaps to the healthier condition it was in the century before that.