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# A Ringmaster for the Circus: Using Interstate Compacts to Create a Comprehensive Program to Restore the Chesapeake Bay

by Matthew L. Paeffgen

Editors' Summary: Efforts to protect and restore the Chesapeake Bay began as early as the 1970s, but the agencies and organizations working on the issue lack direction, coordination, and cohesion. As a result, progress toward protecting the bay and its watershed has been slow, while the threat of interstate pollution has grown. In this Article, Matthew L. Paeffgen offers a solution to increase the effectiveness of Chesapeake Bay protection efforts: the interstate compact. Paeffgen begins by describing the state of the bay, and then discusses how the federal common law of interstate nuisance provided a remedy for interstate pollution in the past, and how subsequent judicial interpretations foreclose this option. He then reviews interstate compacts and their use to address environmental issues, as well as compacts currently operating in the Chesapeake Bay watershed. He closes with a description of how to structure a new interstate compact to focus current, scattered efforts into a cohesive movement.

#### I. Introduction

The Chesapeake Bay, a large and complex natural resource whose watershed covers most of the Mid-Atlantic states, is a resource in trouble. The Chesapeake Bay and its watershed span one of the most densely populated areas of the country. Since the early colonial period, the watershed has undergone nearly constant change, from the clearing and farming of lands, to the rise of heavy industry, and suburban sprawl. As the Chesapeake Bay's resources withered away, individuals and governments began to take notice.

Since the 1970s, awareness of man's impact on the Chesapeake Bay has grown. From this awareness, a grass-roots movement arose to create a loose collection of public and private environmental organizations. With its ever-increasing population of concerned agencies and organizations, the Chesapeake Bay watershed is not unlike "a circus without a ringmaster." The slow progress toward restoring the Chesapeake Bay may be the result of too many agencies and or-

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- Alliance for the Chesapeake Bay, About the Bay, http://www.acbonline.org/about.cfm (last visited Oct. 17, 2007).
- 2. John R. Wennersten, The Chesapeake: An Environmental Biography 54-57 (2001).
- 3. Id. at 54-57.
- Id. at 185. By 1979, roughly 20 federal agencies, 6 state agencies, 28
  academic institutions, and over 260 public interest environmental
  groups were involved in bay restoration efforts.

ganizations with too little coordination.<sup>6</sup> Firm direction appears needed to coordinate these collective efforts.

Thus far, informal multistate and private organizational arrangements have failed to effectively coordinate pollution controls for the Chesapeake Bay watershed. A better option for the watershed states is to enter into an interstate compact to establish pollution reduction goals. A joint watershed commission, formed by the compact, with authority to create and enforce a comprehensive plan, would help sustain regional focus and coordination to meet the watershed-wide goals.

Part I of this Article gives a brief overview of the current state of the Chesapeake Bay, including pressing environmental problems. Part II discusses how the federal common law of interstate nuisance provided a remedy for interstate pollution in the past, and how subsequent judicial interpretations foreclose this option. Specifically, this part reviews the remains of the common-law remedy and determines whether it provides a feasible means to address interstate water pollution. Part III reviews interstate compacts and their use to address environmental issues. Also, this part reviews the compacts currently operating in the Chesapeake Bay watershed, with a focus on the most prominent voluntary interstate agreements that address water pollution. Finally, Part IV describes how to structure a new interstate compact for the Chesapeake Bay watershed that focuses the collective efforts into a coordinated movement to restore the Chesapeake Bay.

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#### II. State of the Chesapeake Bay

#### A. The Chesapeake Bay at a Glance

The Chesapeake Bay together with its watershed spans 64,000 square miles and stretches from Cooperstown, New York, to Norfolk, Virginia. As an estuary, the bay receives one-half of its water from the Atlantic Ocean, and one-half from its 150 tributary rivers and streams. The approximately 11,600-mile shoreline of the bay and its tributaties is longer than the entire West Coast of the United States. Yet, despite its size, the Chesapeake has an average depth of only 21 feet. The Chesapeake watershed's considerable area accommodates more than 3,600 species of plants and animals living within the bay's diverse habitats.

The Chesapeake Bay provides important economic and recreational resources for those who live, work, and vacation throughout the watershed. <sup>12</sup> Its native populations of fish, crab, shellfish, and waterfowl are valuable commercial and recreational resources. <sup>13</sup> Roughly 17,000 watermen derive their living from harvesting the Chesapeake Bay's fish, crabs, and oysters. <sup>14</sup> Together, these watermen harvest roughly 500 million pounds of seafood from the Chesapeake Bay annually. <sup>15</sup> In addition to commercial harvests, an estimated 1.4 million recreational sportsmen take fishing trips in either Maryland or Virginia. <sup>16</sup>

The Chesapeake Bay's popularity is, however, a major source of its environmental problems. An estimated 16 million people currently live in the Chesapeake Bay watershed. By the year 2020, the watershed population is expected to exceed 17 million people. There is a clear correlation between population growth and associated development and environmental degradation in the Chesapeake Bay. As greater numbers of people move into the watershed, demands on resources and the potential for more pollution intensifies. As a result of the population growth and increased land development, most pollutants enter the Chesapeake Bay from nonpoint sources.

- 7. Alliance for the Chesapeake Bay, supra note 1.
- 8. Id.
- Chesapeake Bay Program, About the Bay: Bay Factoids, http:// www.chesapeakebay.net/info/factoids.cfm (last visited Oct. 17, 2007)
- 10. Alliance for the Chesapeake Bay, supra note 1.
- 11. Id.
- 12. Chesapeake Bay Program, About the Bay: Bay Factoids, supra note 9.
- Michael T. Palmer, The Chesapeake Bay Restoration Act of 2000: New Requirements for Federal Agencies, 28 Wm. & MARY ENVIL. L. & POL'Y REV. 375, 382-83 (2003).
- 14. Id. at 383.
- 15. Id.
- 16. Id. at 383-84 n.45.
- 17. Chesapeake Bay Program, About the Bay: Bay Factoids, supra note 9.
- 18. *Id*.
- CHESAPEAKE 2000, SOUND LAND USE (2001), available at http:// www.chesapeakebay.net/agreement.htm.
- 20. Chesapeake Bay Program, About the Bay: Bay Factoids, supra note 9.
- 21. Id.

#### B. The Problem of Nonpoint Source Pollution

Nonpoint source pollution encompasses a number of differing types of contaminants. "Non-point source pollution includes the nutrients and other contaminants that are washed off the ground and into waterways from any land use, such as lawns, crop lands, feedlots, parking lots, and roads."<sup>22</sup> The major land use categories of nonpoint sources can be divided into urban (16%), mixed open (11%), agriculture (48%), and forest (2%).<sup>23</sup> In terms of individual pollutants, roughly 80% of all nitrogen and 78% of all phosphorous enter the Chesapeake Bay from nonpoint sources.<sup>24</sup> Frequently, nutrients and toxic materials that contaminate habitats attach to suspended sediment.<sup>25</sup> Sedimentary runoff, therefore, stands out as one of the most common and difficult to control nonpoint source pollution problems for the Chesapeake Bay.<sup>26</sup>

The sources of sediment are not as well defined. Generally, the sources of sediment that enter the Chesapeake Bay include shoreline erosion, delivery from the watershed, i.e., disturbed agricultural and urban lands, as well as stream corridors, and input from the ocean.<sup>27</sup> The input from these sources varies in different areas of the bay.<sup>28</sup> Generally, the Susquehanna River is the primary source of sediment in the northern bay, while in the southern Chesapeake Bay, shoreline erosion and input from the ocean are the dominant sources. Shoreline erosion alone is the major source of sediment in the central bay.<sup>29</sup>

The specific causes of sedimentary runoff are difficult to quantify. Studies correlating annual sediment yields to land use indicate that areas with the highest percentage of agriculture produced the greatest yields.<sup>30</sup> Conversely, areas with the highest percentage of forest cover had the lowest yields.<sup>31</sup> Population pressures and increasing development, however, effectively reduced the amount of forest cover closest to the Chesapeake Bay, from 51% in 1973 to 39% in 1997.<sup>32</sup>

## C. Impact of Nonpoint Source Pollution on the Chesapeake Bay's Watershed

Despite over 20 years of multistate pollution control efforts, the Chesapeake Bay's aquatic environment remains substantially degraded. A good marker of the bay's decline is its native species of submerged aquatic vegetation (SAV). SAV

- 22. Id.
- 23. SCOTT PHILLIPS ET AL., FINAL REPORT OF THE CHESAPEAKE BAY SCIENCE AND TECHNOLOGY ADVISORY COMMISSION'S WORKSHOP: UNDERSTANDING THE "LAG TIMES" AFFECTING THE IMPROVEMENT OF WATER QUALITY IN THE CHESAPEAKE BAY 10 (2005), available at http://www.chesapeake.org/stac/Pubs/LagTimeReport.pdf.
- 24. Id. at 9-10.
- 25. See Allen C. Gellis et al., Summary of Suspended-Sediment Data for Streams Draining the Chesapeake Bay Watershed: Water Years 1952-2002 (2004), available at http://pubs.usgs.gov/sir/2004/5056/SIR2004-5056.pdf.
- 26. Id.
- 27. PHILLIPS ET AL., supra note 23, at 10.
- 28. Id.
- 29. Id.
- 30. Gellis et al., supra note 25, at 6-7.
- 31. Id. at 7.
- 32. Wennersten, supra note 2, at 213.

is an important part of the bay's ecology that provides habitats for fish and crab populations, provides food for waterfowl, prevents erosion, and oxygenates the water.<sup>33</sup> SAV, however, is particularly susceptible to increasing sedimentary runoff. In order to thrive, most types of SAV need a high quantity and quality of light.<sup>34</sup> Sediment-laden runoff negatively impacts SAV by increasing turbidity and light attenuation. As the sediment settles to the bottom it coats the leaves of the SAV, further reducing exposure to available light.<sup>35</sup> These effects substantially reduce the SAV's ability to photosynthesize, which eventually kills the individual SAV.<sup>36</sup>

The Susquehanna River is the most significant source of sediment input in the Chesapeake Bay, pumping out an annual mean of 1.31 million tons per year,<sup>37</sup> though not all of this sediment makes it into the bay. The Conowingo Dam, at the base of the Susquehanna River, filters out 50-70% of the sediments that reach it.<sup>38</sup> Unfortunately, the Conowingo Dam is over 70 years old, and is expected to reach saturation within the next 20-30 years.<sup>39</sup> Once the Conowingo Dam reaches saturation, it will be taken out of service. With no other barriers in place to act as filters, the Susquehanna River's sedimentary input into the Chesapeake Bay is expected to increase by 150%.<sup>40</sup> Yet, even with the Conowingo Dam acting as a filter, Chesapeake Bay SAV has declined to less than 63,000 acres from an estimated pre-colonization high of over 600,000 acres.<sup>41</sup>

Generally, declines in aquatic species correspond to loss of SAV habitat and increased pollution. <sup>42</sup> For example, between 1988 and 1992, the estimated population of Chesapeake Bay blue crab declined 50% from roughly 1.7 billion to 440 million. <sup>43</sup> Aquatic populations will continue to decline unless coordinated action is taken to control and reduce the nonpoint source sedimentary pollution. <sup>44</sup>

#### III. Federal Common Law of Nuisance

#### A. Background and Current Jurisprudence

"There is no federal general common law," the U.S. Supreme Court emphatically declared in *Erie R.R. Co. v. Tompkins*. <sup>45</sup> Despite such a sweeping statement, the federal courts continued to develop federal common law within the limits prescribed by the U.S. Constitution and the *Erie* Doc-

- Chesapeake Bay Foundation, *Under Water Bay Grasses*, http://www.cbf.org/site/PageServer?pagename=resources\_facts\_sav (last visited Oct. 17, 2007).
- 34. Thomas Beauduy et al., The Impact of Susquehanna Sediments on the Chesapeake Bay 10 (2000), available at http://www.chesapeake.org/stac/Pubs/Sediment\_Report.pdf.
- 35. Id. at 10.
- 36. *Id*.
- 37. Id. at 7.
- 38. Id. at 6.
- 39. Id.
- 40. Id.
- 41. Chesapeake Bay Foundation, supra note 33.
- 42. Id.
- 43. Chesapeake Bay Program, Crabs and Shellfish, http://www.chesapeakebay.net/info/crabshell.cfm (last visited Oct. 17, 2007).
- 44. BEAUDUY ET AL., supra note 34, at 6.
- 45. 304 U.S. 64, 78 (1938).

trine. 46 Among the slivers of federal common-law tradition left to the courts was the common law of nuisance. 47

In its earliest applications, prior to Erie, the federal common law of nuisance imposed a high burden of proof.<sup>48</sup> Plaintiffs had to prove the existence of a nuisance "by determinate and satisfactory evidence" with proof that "must show such a state of facts as will manifest the danger to be real and immediate."49 If the plaintiff should meet this burden, a court would grant him equitable relief calculated to abate the nuisance. 50 When deciding nuisance claims, a court had the option to issue an injunction.<sup>51</sup> In doing so, a court's authority necessarily included the power to require a defendant state to undertake measures within its control to end the harmful conditions that may otherwise stand in the way of the execution of the decree.<sup>52</sup> One such decree required the defendant state to "take all necessary steps" to secure funds to complete a water management project regulating the outflow of water from Lake Michigan.<sup>53</sup> In that case, the plaintiff state successfully proved that excessive water withdrawals lowered the water level and damaged commercial navigation, fisheries, and riparian property values.<sup>54</sup>

With the 1972 passage of the Clean Water Act (CWA), the Supreme Court took the opportunity to dispose of the federal common law of nuisance during its second review of Milwaukee v. Illinois. 55 The case involved a nuisance claim brought by the downstream state related to storm sewer discharges into Lake Michigan that resulted in interstate water pollution.<sup>56</sup> In its initial review of the case, the Court declined to exercise its original jurisdiction as lower court action was available.<sup>57</sup> While the plaintiff state tried its case in federal district court, and appealed, the U.S. Congress passed the 1972 CWA Amendments, establishing a permitbased regulatory scheme for point source discharges.<sup>58</sup> During its second review, the Supreme Court interpreted the 1972 Amendments to mean Congress intended to prevent states from using the federal common law of nuisance to remedy interstate pollution.<sup>59</sup>

Justice William H. Rehnquist delivered the opinion of the Court and noted that after *Erie*, federal common law is not an end in itself but "a necessary expedient." He reasoned that federal general common law is usually interpreted to be a gap-filler for instances where Congress has not taken ac-

- 46. Michael Collins, *The Dilemma of the Downstream State: The Untimely Demise of Federal Common-Law Nuisance*, 11 B.C. ENVIL. AFF. L. REV. 297, 313 (1984).
- 47. *Id.* at 315.
- 48. Robert V. Percival, *The Clean Water Act and the Demise of the Federal Common Law of Interstate Nuisance*, 55 ALA. L. REV. 717, 723 (2004)
- 49. Id. at 723 (quoting Missouri v. Illinois, 180 U.S. 208, 248 (1901)).
- 50. Id.
- 51. *Id*.
- 52. Id.
- 53. Id. (quoting Wisconsin v. Illinois, 289 U.S. 395, 411 (1933)).
- 54. *Id*.
- 55. 451 U.S. 304, 309-10, 11 ELR 20406 (1981).
- 56. Id.
- 57. Id.
- 58. 33 U.S.C. §§1311, 1342 (1972).
- 59. Milwaukee, 451 U.S. at 332.
- 60. Id.

tion.<sup>61</sup> Where Congress enacts legislation that addresses a question previously determined on the basis of federal common law, "the need for such an unusual exercise of law making by the federal courts disappears."<sup>62</sup> In short, federal common law may continue to apply until the matter is addressed by comprehensive legislation, or by authorized administrative standards.<sup>63</sup> The appropriate inquiry is, therefore, whether a comprehensive legislative scheme exists, and whether this legislative scheme directly speaks to a particular question.<sup>64</sup>

Upon considering the 1972 CWA Amendments, the Court concluded that Congress had indeed enacted a comprehensive legislative scheme that spoke to the question. 65 Congress clearly intended, according to the Court, to create an all-encompassing program for the regulation of water pollution.<sup>66</sup> The Court noted that the Act's discharge permit requirements indicated that Congress' scheme spoke directly to the question of point source discharge of pollutants. 67 Thus point source pollution, such as the storm sewer discharge complained of by the state of Illinois, fell within the purview of the Act. The Court further noted the complexity of interstate pollution cases and the detailed nature of the legislative scheme. This complexity, the Court reasoned, meant that any federal common-law approach would only produce the type of "ad hoc" approaches to water pollution control that Congress already deemed inadequate. 68 In view of all of these factors, the Court held that the CWA Amendments displaced the federal common law of interstate nuisance.69

#### B. Administrative Redress Under the CWA

The CWA attempts to create a balanced regulatory partnership between the U.S. Environmental Protection Agency (EPA) and a source state. That partnership does not allow affected states, downstream of the source state, to upset the balance by attempting to impose its own regulations on out-of-state sources. Instead, the CWA provides affected states with an opportunity to voice their concerns with the source state prior to a permit's issuance. An affected state does not have the right to block a permit. An affected state affected state does not think its concerns were adequately addressed, it may apply to the EPA Administrator to have the permit denied.

- Id.; see Committee for Consideration of Jones Falls Sewage Sys. v. Train, 539 F.2d 1006, 1008 (4th Cir. 1976).
- 62. Milwaukee, 451 U.S. at 314.
- Id.; see Texas v. Pankey, 441 F.2d 236, 241, 1 ELR 20089 (10th Cir. 1971).
- 64. Milwaukee, 451 U.S. at 315.
- 65. Id. at 318.
- 66. *Id*.
- 67. Percival, supra note 48, at 763-64.
- 68. Milwaukee, 451 U.S. at 325.
- 69. Id. at 332.
- International Paper Co. v. Ouellette, 479 U.S. 481, 490, 17 ELR 20327 (1987).
- 71. Id. at 490-91.
- 72. Id.
- 73. *Id*.
- 74. Id.

Though foreclosed from suing under the federal common law of nuisance, states may still bring suit under state nuisance laws. Under the permitting program, states are expected to take their own nuisance laws into account when setting permit requirements. If an affected state dislikes a given permit's requirements and is not satisfied with an administrative appeal to the EPA Administrator, it may bring suit under the nuisance laws of the source state. Suing under the affected state's laws would undermine the statutory goals of efficiency and predictability in the permit system. Suing under the source state avoids complications, and furthers the objectives of the program.

#### C. Feasibility as Remedy to Protect the Chesapeake Bay

It is unclear how courts would respond to a federal common law of nuisance claim brought against a state for nonpoint source interstate pollution. All prior cases where courts addressed the issue of interstate nuisance involved pollutants discharged from point sources.<sup>79</sup> While the CWA expressly deals with the matter of point source water pollution, it is generally silent on the matter of nonpoint source pollution.<sup>80</sup> It may be possible for an affected downstream state within the Chesapeake Bay watershed to sue an upstream state for ineffective control of sedimentary runoff. Even with the high burden of proof, the number of studies detailing the damage caused by excess sedimentary runoff may enable such a claim to succeed. 81 With these studies, a downstream state may establish that substantial harm to its economic and environmental interests were caused by the failure to control sedimentary runoff into a tributary, such as the Susquehanna River, and thus into the Chesapeake Bay.<sup>82</sup>

In view of the restricted options available to an affected state, suing under the common law of nuisance does not seem practicable. 83 If the Chesapeake Bay were a resource shared between only two states, seeking redress in the courts might be expedient. As mentioned above, the bay is both a complex resource and subject to activities carried on over a vast territory. Furthermore, given the number of jurisdictions involved pinpointing the exact injurious act—needed to make a definite showing that a nuisance exists—would require an untenable level of interstate supervision. 84 In addition to this, the "clean hands" required of a plaintiff state probably precludes affected downstream states from suc-

- 75. *Id*.
- 76. *Id*.
- 77. Id. at 496.
- 78. Id. at 499.
- See Missouri v. Illinois, 180 U.S. 208 (1901); Wisconsin v. Illinois, 289 U.S. 395 (1933); Committee for Consideration of Jones Falls Sewage Sys. v. Train, 539 F.2d 1006 (4th Cir. 1976); Texas v. Pankey, 441 F.2d 236, 1 ELR 20089 (10th Cir. 1971); Milwaukee v. Illinois, 451 U.S. 304, 332, 11 ELR 20406 (1981); International Paper, 479 U.S. at 490.
- John P. Almeida, Nonpoint Source Pollution and Chesapeake Bay Pfiesteria Blooms: The Chickens Come Home to Roost, 32 Ga. L. Rev. 1195, 1199 (1998).
- 81. Beauduy et al., supra note 34.
- 82. Missouri, 180 U.S. at 248.
- 83. International Paper, 479 U.S. at 496-99.
- 84. Percival, *supra* note 48, at 737 (noting that under the defunct federal common law of nuisance plaintiffs had a high burden of proof).

cessfully bringing a nuisance claim. 85 Furthermore, in light of the limitations of bringing suit only under source state laws, the number of jurisdictions precludes timely resolution of a nuisance claim. 86 While interstate legal battles appear to be an unsuitable remedy, interstate agreements and compacts may provide better results.

#### IV. Interstate Agreements and the Compact Clause

#### A. The Compact Clause

Compacts formed between the several states are not among the innovations created by the Founders. Rather, they stem from a lengthy tradition of colonial statecraft that predates not only the Constitution, but the American Revolution itself.<sup>87</sup> The potential for compacting states to upset the contemplated central government prompted the Founders to address compacts specifically in the Articles of Confederation.88 Under the Articles, none of the states could "enter into any . . . confederation or alliance whatever between them, without the consent of the United States in Congress assembled."89 The Articles further provided that Congress shall be the last resort on appeal in disputes amongst the individual states. 90 By holding all unapproved interstate compacts invalid, the Founders sought to ensure the survival of a weak central government against possible political alliances between the states.<sup>91</sup> The consent requirement served this end by ensuring that Congress held final supervisory authority over the state's cooperative arrangements. 92 It is unclear whether the prohibition on unauthorized compacts proved an effective deterrent. Prior effectiveness notwithstanding, the Founders transferred the Articles' Compact Clause, nearly verbatim, into the Constitution.<sup>93</sup>

While the text of the Compact Clause reads as an absolute prohibition without congressional consent, the courts gradually moved away from a strict textual interpretation. The courts now looks to the form and the effect of a given compact. In terms of the compact's form, the Supreme Court set out a few indicia of compacts. <sup>94</sup> These include: the creation of joint regulatory organizations; restrictions on members' freedom to modify their participation or withdraw from the compact unilaterally; and enactments requiring reciprocal

- Id. at 738 (discussing unclean hands requirement under federal common law of nuisance).
- 86. International Paper, 479 U.S. at 490-91.
- Felix Frankfurter & James M. Landis, The Compact Clause of the Constitution—A Study in Interstate Adjustments, 34 YALE L.J. 685, 730-34 (1925).
- 88. Articles of Confederation art. XI, cl. 2 (1781).
- 89. *Id*
- 90. Id. ("all disputes and differences not subsisting or that hereafter may arise between two or more states concerning boundary, jurisdiction or any other cause whatever"); see Frankfurter & Landis, supra note 87, at 694-95; Michael S. Greve, Compacts, Cartels, and Congressional Consent, 68 Mo. L. Rev. 285, 296-97 (2003).
- 91. Frankfurter & Landis, supra note 87, at 694.
- 92. Cuyler v. Adams, 449 U.S. 443, 439-40 (1981).
- 93. U.S. Const. art. I, §10, cl. 3.
- 94. Seattle Master Builders Ass'n v. Pacific Nw. Elec. Power & Conservation Planning Council, 786 F.2d 1359, 1363 (9th Cir. 1986) (involving a compact between Idaho, Montana, Oregon, and Washington for the production, apportionment, and regulation of electric power); Northeast Bancorp, Inc. v. Board of Gov'rs of the Fed. Reserve Sys., 472 U.S. 159, 175-76 (1985).

action to be effective. 95 Where the form of an agreement has most, but not all, of the indicia of a compact, it does not require congressional consent. 96 Where all the indicia of a compact are present, a court looks to the effect of the compact on the federal sphere. 97

The effect of an interstate agreement on the federal sphere brings it within the Compact Clause. 98 Interstate agreements whose effects "tend to so increase political power in the states, that [such an increase] may encroach upon or interfere with the just supremacy of the [federal government of the] United States," come within the clause's consent requirement. 99 Where the contemplated joint activity does not affect the federal sphere, no approval by Congress is necessary. 100 If an agreement does not fall within the Compact Clause's requirements, it is not invalid for lack of congressional consent. 101 Therefore, the relevant inquiry must focus on the effect on the federal sphere to determine if consent is necessary for validity. 102

An agreement determined to have an effect on the federal sphere must be brought before Congress so that it may pass political judgment on the arrangement. Ongress may consider, inter alia, the likelihood a proposed compact will interfere with federal activities, the possible extent of disadvantaging nonsignatory states, and whether or not the matter would be best left unregulated. If a proposed compact passes political muster, Congress may consent by authorizing joint state action in advance of states joining, or by express or implied approval to an agreement the states already joined. Assuming that the subject matter is appropriate for congressional legislation, the consent of Congress transforms the compact into federal law. Therefore, with congressional consent, the signatory states are therefore bound by the terms of their agreement.

While the current narrow definition of compacts loosens the restrictions on the compacting states, it is arguably in keeping with the Framer's intent. Today, interstate compacts are viewed less as a political threat and more as a political opportunity for the states to find innovative ways to or-

- Seattle Master Builders Ass'n, 786 F.2d at 1363; Cuyler, 449 U.S. at 440.
- 96. *Northeast Bancorp, Inc.*, 472 U.S. at 175 (agreement did not establish a joint regulatory organization, no limitations placed on unilateral modification or withdrawal, and it did not require reciprocal action)
- 97. Seattle Master Builders Ass'n, 786 F.2d at 1363 (the "federal sphere" being those powers specifically granted to the federal government in the Constitution).
- 98. Id
- Id; Cuyler, 449 U.S. at 440; see, e.g., U.S. Steel Corp. v. Multistate Tax Comm'n, 434 U.S. 452, 468 (1978) (quoting Virginia v. Tennessee, 148 U.S. 503, 519 (1893)).
- 100. Cuyler, 449 U.S. at 440.
- 101. *Id*.
- U.S. Steel Corp., 434 U.S. at 471; see Virginia v. Tennessee, 148 U.S. 503 (1893).
- Cuyler, 449 U.S. at 440 (quoting U.S. Steel Corp., 434 U.S. at 485 (White, J., dissenting)).
- 104. Id.
- 105. Cuyler, 449 U.S. at 441; Virginia, 148 U.S. at 521.
- 106. Cuyler, 449 U.S. at 440; see West Virginia ex rel. Dyer v. Sims, 341 U.S. 22, 26 (1951) (pollution control in interstate streams an appropriate subject for congressional legislation).
- 107. Cuyler, 449 U.S. at 440.
- 108. Frankfurter & Landis, supra note 87, at 694.

der their own affairs. 109 The Compact Clause encourages innovative arrangements. 110 "The combined legislative powers of Congress and the several States permit a wide range of permutations and combinations for governmental action."111

Innovative arrangements involving unusual features do not render a compact invalid. 112 To the contrary, even where agreements tinker with the federal structure, congressional consent may commit the government to this new arrangement. 113 The federal government may consent to be involved in or to be directly affected by compact-created agencies. 114 Congress is not barred against directing federal agencies to follow policies set by their nonfederal counterparts. 115 Furthermore, the federal government can be subject to state law where there is a clear congressional mandate and specific legislation clearly authorizing state control. 116 By incorporating approved compacts into federal law, Congress retains ultimate control over the federal sphere, while allowing the states to propose policies better tailored to their regional needs. 117

#### B. Current Chesapeake Bay Region Interstate Compacts

The states within the Chesapeake Bay watershed are well practiced in forming interstate compacts to determine water rights and water pollution issues. Currently, there are two multiparty interstate compacts operating in the watershed that address the problem of interstate water pollution. 118 While Congress approved both, their respective approaches to dealing with water pollution differ widely in both structure and authority. 119 Neither of these compacts seeks to address water pollution issues generally for the entire Chesapeake Bay watershed. Instead, both compacts cover separate tributaries of the Chesapeake Bay and involve distinct groups of signatory states. Considering both compacts together brings to light how their differing structures impact their ability to function successfully.

### 1. Interstate Commission on the Potomac River Basin

In 1940, the District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia entered into a compact that es-

- 109. Cuyler, 449 U.S. at 440; Frankfurter & Landis, supra note 87, at 688.
- 110. Id.
- 111. Id.
- 112. Seattle Master Builders Ass'n v. Pacific Nw. Elec. Power & Conservation Planning Council, 786 F.2d 1359, 1364 (9th Cir. 1986).
- 114. Id. at 1364.
- 115. Id.; Washington Metro. Area Transit Auth. v. One Parcel of Land, 706 F.2d 1312, 1316 (4th Cir.), cert. denied, 464 U.S. 893 (1983) (federal government may delegate powers to an organization established by compact); see, e.g., Interstate Compact on the Potomac River Basin, 54 Stat. 748 (1940).
- 116. Seattle Master Builders Ass'n, 786 F.2d at 1364; see, e.g., Hancock v. Train, 426 U.S. 167, 179, 6 ELR 20555 (1976) (federal government subject to state air pollution standards); see also Columbia Basin Land Protection Ass'n v. Schlesinger, 643 F.2d 585, 604-06, 11 ELR 20537 (9th Cir. 1975) (federal agencies subject to state water pollution standards), rev'd on other grounds, 42 U.S. 200, 211-13 (1976).
- 117. Frankfurter & Landis, supra note 87, at 688.
- 118. Potomac River Basin Compact, 54 Stat. 748 (1940), amended by 84 Stat. 856 (1970); Susquehanna River Basin Compact, 84 Stat. 1509
- (1970).

tablished the Interstate Commission on the Potomac River Basin (ICPRB). 120 The signatories declared boldly in the preamble that a joint watershed-based agency best promoted the abatement of existing pollution and control of future pollution of interstate streams. 121 To address the problem of interstate water pollution, the signatory states, however, declined to set up a joint agency with regulatory authority. 122 They formed the ICPRB in the belief that cooperation, not regulation, was the appropriate method of achieving their goals. 123 In lieu of regulations, the ICPRB attempts to build partnerships between public agencies and the private sector in order to increase efficiency, reduce duplication of efforts, and mobilize resources to address Potomac River Basin water quality. 124

The brief six-page compact accords with the signatories' preference for cooperative coordination over regulation. 125 The compact vests the ICPRB with various administrative powers. Generally, the ICPRB should cooperate with the signatories' legislative and administrative agencies to promote uniform pollution control and abatement laws and regulations. 126 It should also cooperate with public and private agencies and organizations to formulate plans, coordinate programs relating to stream pollution or to the utilization, conservation or development of water or associated land resources, and sponsor cooperative action.<sup>127</sup> Additionally, the ICPRB should recommend to the signatory bodies reasonable minimum standards for the treatment of sewage and industrial or other wastes discharged to the Potomac River Basin and for the cleanliness of the various streams. 128 In effect, these provisions empower the ICPRB to propose new regulatory legislation, but not to promulgate or implement regulations on its own. 129 Aside from making such proposals, the ICPRB is limited to attempts to keep the various signatories on the same page in their efforts to clean up the Potomac River Basin. 130 Apart from coordinating annual riparian cleanup days and managing a generally successful program to restore the Potomac River Basin's shad population, 131 the ICPRB does not appear to have progressed toward achieving its goals. 132

#### 2. Susquehanna River Basin Commission

In the decades following the ICPRB's creation, Maryland and Pennsylvania revisited the use of interstate compacts to

- Potomac River Basin Compact, 54 Stat. 748 (1940), amended by 84 Stat. 856 (1970).
- 121. Id.
- 122. ICPRB, Frequently Asked Questions, http://www.potomacriver. org/about\_ICPRB /faqs.htm (last visited Oct. 17, 2007).
- 123. Id.
- 124. Id.
- 125. Potomac River Basin Compact, art. II, 54 Stat. 748 (1940), amended by 84 Stat. 856 (1970).
- 126. *Id.* art. II, cl. B.
- 127. Id. art. II, cl. D.
- 128. Id. art. II, cl. F(1).
- 129. Id. art. II.
- 130. ICPRB, Frequently Asked Questions, supra note 122.
- 131. ICPRB, Bay Agreement Will Help Guide Potomac Progress, Poto-MAC BASIN REP., July/Aug. 2000, available at http://www.potomac river.org/info\_center/Reporter\_Archive/reporterv564.htm#agreement. Shad are a particular species of fish once commonly found in the Potomac River.

control water pollution. In 1970, these states joined with New York to establish the Susquehanna River Basin Commission (SRBC). The signatory states recognized that lack of coordination frustrated their individual efforts to manage the Susquehanna River Basin's water resources. They created the SRBC to bring order to the overlapping, uncoordinated efforts of multiple government agencies, and to prevent further "splintering of authority and responsibility." While the signatories expressly state that their intent is to "emphasize the primary role of the states," they set up the SRBC as an essentially regulatory authority. The states is the states of the states.

In order to centralize the patchwork of environmental and water resource regulations, the signatory states vested the SRBC with sweeping regulatory powers. <sup>137</sup> The SRBC's primary source of power stems from its authority to develop a comprehensive basinwide plan for the development of water resources. <sup>138</sup> The compact confers on the SRBC an express duty, not simply a discretionary power, to manage and control water resources in all matters it determines to be interstate in nature, or to have a major impact on the resources. <sup>139</sup> It also may "assume jurisdiction" in any matter affecting water resources as it determines the implementation that the comprehensive plan requires. <sup>140</sup> In order to ensure the full implementation of the SRBC's comprehensive plan, the compact confers a duty to bring suit to compel compliance with the compact and all regulations. <sup>141</sup>

Despite its broad regulatory powers over water quality, the SRBC signatories primarily established it to protect the waters of the Susquehanna River Basin. Most of the SRBC's authority centers on issues of water quality management, watershed management, and flood protection. The compact makes only passing reference to the Chesapeake Bay and its water pollution problems. Indeed, the compact only requires that the comprehensive plan "take into consideration" its effect on "the receiving waters of the Chesapeake Bay." 143

#### C. Current Chesapeake Bay Region Agreements

In addition to the existing tributary compacts, the states falling primarily within the Chesapeake Bay watershed entered into a series of formal Chesapeake Bay Agreements. Beginning in 1980, the signatory states and the District of Columbia set out a number of ambitious goals to stabilize the Chesapeake Bay. While Congress has not given express approval to these agreements, it made reference to them in subsequent amendments to the CWA. 144 Instead of forming binding compacts, each signatory state voluntarily agreed to enact programs that will further the Chesapeake Bay Agreements' goals.

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133. Susquehanna River Basin Compact, 84 Stat. 1509 (1970).
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- 138. Id. art. 3, §3.3(1).
- 139. Id. art. 3, §3.5(3).
- 140. Id. art. 3, §3.5(4).
- 141. Id. art. 3, §3.5(5).
- 142. Id. art. 1, §1.3(5).
- 143. Id. art. 14, §14.1.
- 144. Chesapeake Bay Restoration Act of 2000, 33 U.S.C. §1267 (2000).

#### 1. Chesapeake Bay Commission

The Chesapeake Bay Commission was established in 1980 between Maryland and Virginia. 145 The commission's purpose is similar to the Potomac River Basin Compact, namely, to assist the states in cooperatively managing the Chesapeake Bay. 146 The participating states, including Pennsylvania after 1985, chose the commission structure in order to highlight state responsibility for the bay and to strengthen state policy linkages. 147 The member states declined to empower the commission with any supervisory or regulatory functions. Rather, the commission functions primarily as an advisory body to the member's legislatures. 148 This role is in keeping with the member's belief that success in protecting the bay depended on the legislatures' active engagement. 149 By functioning primarily as an advisory body to the member states, the Chesapeake Bay Commission attempts to focus legislative attention on bay issues identified by the states' own agencies. 150

In order to achieve the shared objective of coordinating environmental policies for the Chesapeake Bay, the member states charged the commission with specific statutory goals. <sup>151</sup> These goals include that the commission "assist the legislatures in evaluating and responding to mutual Bay concerns; promote intergovernmental cooperation and coordinated resource planning; promote uniformity of legislation; enhance the functions and powers of existing offices and agencies; and recommend improvements in the management of Bay resources." <sup>152</sup> In furtherance of these statutory goals, the commission coordinated the adoption of the Chesapeake Bay Agreements. <sup>153</sup> While each of the agreements is voluntary, they culminate in a number of specific pledges relating to pollution control, regional development, and habitat protection.

#### 2. Chesapeake Bay Agreements 1983-2000

In 1983, the District of Columbia, Maryland, Pennsylvania, Virginia, and EPA entered into the first in a 20-year series of Chesapeake Bay Agreements. <sup>154</sup> The 1983 Agreement committed its signatories to a series of meetings every two years, rather than set goals or detailed commitments. <sup>155</sup> These meetings were intended to facilitate the implementation of coordinated plans and to promote cooperation between the signatories. <sup>156</sup> To preside over their progress toward achieving these goals, the 1983 Agreement set up yet another supervisory council. <sup>157</sup> This one, however, styled the Chesa-

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    Chesapeake Bay Commission, History of the Commission, http://
www.chesbay.state.va.us /history.htm (last visited Mar. 7, 2007).
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<sup>134.</sup> Id. art. 1, §1.3 cl. 3.

<sup>135.</sup> Id. pmbl., cl. 3.

<sup>136.</sup> Id. art. 5, §5.2(b).

<sup>137.</sup> Id. art. 3.

<sup>146.</sup> *Id*.

<sup>147.</sup> *Id*.

<sup>148.</sup> Id.

<sup>149.</sup> Id.

<sup>150.</sup> *Id*.

<sup>150.</sup> Iu.

<sup>151.</sup> *Id*. 152. *Id*.

<sup>152.</sup> Iu.

<sup>153.</sup> Id.

<sup>154. 1983</sup> Chesapeake Bay Agreement, http://www.chesapeakebay.net/pubs/1983 Chesapeake Bay Agreement.pdf.

<sup>155.</sup> *Id*.

<sup>156.</sup> *Id*.

<sup>157.</sup> Id.

peake Executive Council, was composed of the signatories' top executives. The council includes the governors of the signatory states and the mayor of the District of Columbia, and is chaired by the EPA Administrator.<sup>158</sup>

The signatories met again in 1987 to reaffirm their commitment to the original 1983 Agreement and to further expand the scope of their initial commitments. 159 The 1987 Agreement set out the specific goal of reducing nitrogen and phosphorus loads entering the Chesapeake Bay by 40% from then-current levels by the year 2000. 160 In addition, the 1987 Agreement set out 28 specific commitments to improve the health of the bay. 161 It further specified that the bay's living resources were the ultimate indicators of its health. 162 The 1987 Agreement was amended in 1992 to include the tributaries of the Chesapeake Bay, along with tributary specific programs. 163 The signatories further committed to seek a 40% reduction in mainstream nutrients. 164 To that end, the 1992 Amendments called for the signatories to explore implementing cost-effective nutrient reduction technologies. 163

Most recently, the signatory members of the Chesapeake Bay Program and the Executive Council recommitted themselves to restore the Chesapeake Bay watershed. By signing "Chesapeake 2000," the signatories set out goals to guide the bay program through 2010. 166 In addition to the usual affirmations of continued coordinated efforts, Chesapeake 2000 sets out five restoration goals. 167 These goals include: living resource restoration; vital habitat restoration; water quality protection and restoration; sound land use; and greater community stewardship. 168 To further the 5 goals, Chesapeake 2000 includes over 100 specific commitments ranging from removal of bay tributaries from EPA's impaired waters list to restoration of 114,000 acres of submerged aquatic vegetation. 169

Progress toward the goals described in Chesapeake 2000 has been slow. In 2006, EPA's Chesapeake Bay Program Office issued a report critiquing the bay partners' efforts. <sup>170</sup> Few, if any, of the program targets are being met. The commitment to reduce sediment loads by 1.37 million tons per year by 2008 looks unlikely to succeed. Chesapeake Bay partners have only managed to meet roughly 50% of their annual sediment reduction goals each year since 2002. <sup>171</sup> Overall, sediment loads have only been reduced by 0.8 million tons per year. <sup>172</sup> Additionally, the bay partners only

158. Id.

 1987 Chesapeake Bay Agreement, http://www.chesapeakebay.net/ pubs/1987 Chesapeake Bay Agreement.pdf.

160. Id.

161. Id.

162 *Id* 

 Chesapeake Bay Agreement: 1992 Amendments, http://www. chesapeakebay.net/pubs/1992ChesapeakeBayAmendments.pdf.

164. *Id*.

165. *Id*.

166. Chesapeake 2000, *supra* note 19.

167. Id.

168. *Id*.

169. *Id*.

170. Chesapeake Bay Program, *EPA Chesapeake Bay Program Office Report*, http://www.chesapeakebay.net/pubs/calendar/PSC\_03-08-06\_Handout\_5\_7173.pdf.

171. *Id*.

172. Id.

achieved 39% of their goal to increase the Chesapeake Bay to a total of SAV 185,000 acres by 2011. 173

Prior to EPA's assessment, the U.S. Government Accountability Office (GAO) issued a report to Congress sharply rebuking the bay program. Although the bay program has established 101 measures, it has not yet developed an integrated approach that would allow it to translate these individual measures into an assessment of overall progress toward achieving the five broad restoration goals outlined in Chesapeake 2000. The commitments contained in Chesapeake 2000, 21 are quantifiable and 81 are not quantifiable. The 21 quantifiable commitments are associated with only 4 of the 5 broad goals. The In view of these dual assessments, it appears that the bay partnership failed both to make substantive progress toward its objectives and to create workable measures and strategies to begin in earnest.

#### V. Recommendations for Change

Repeatedly, the signatories to the Chesapeake Bay Program affirmed that watershedwide efforts are needed to restore the bay. 177 Without a clear watershedwide plan, the current regime of voluntary commitments to broad objectives continues to fail. 178 Coordinated, comprehensive, and binding planning for the entire Chesapeake Bay watershed is the solution. There is need for an all-encompassing Chesapeake Bay Watershed Commission (CBWC) established by a formal interstate compact.

The tributary compacts currently in operation provide useful instruction as to how the CBWC compact should be structured. The ICPRB compact illustrates the need to vest the new CBWC with substantive powers to compel compliance with the compact terms. Without such authority, the ICPRB generally failed to produce the results its signatories set out. The ICPRB's own website evidences its generally limited progress. A review of the past six years of ICPRB newsletters reveals that its major projects consist of annual riverside cleanups and restocking the Potomac River Basin with shad. 179 With only persuasive powers, it appears that the signatory states have little incentive to follow the commission's advice. As a 2005 assessment giving the Potomac River Basin's health status a grade of "C+" indicates, only mild progress has been achieved. The evaluating researcher stated that a "parent-teacher conference" would be needed soon to prevent developmental pressures from overwhelming the progress made to date.<sup>181</sup> Its dependence on

173. Id.

174. U.S. GAO, GAO REPORT TO CONGRESSIONAL REQUESTERS, CHESAPEAKE BAY PROGRAM: IMPROVED STRATEGIES ARE NEEDED TO BETTER ASSESS, REPORT, AND MANAGE RESTORATION PROGRESS (2005), available at http://www.gao.gov/new.items/d0696.pdf

175. Id. at 13.

176. Id at 13 n.3.

177. Chesapeake 2000, supra note 19.

178. See Chesapeake Bay Program, EPA Chesapeake Bay Program Office Report, supra note 170; BEAUDUY ET AL., supra note 34.

 ICPRB, Bay Agreement Will Help Guide Potomac Progress, supra note 131.

 ICPRB, Potomac Basin News Release, Jan. 1, 2005, available at http://www.potomacriver.org/postbioconference.pdf.

181. *Id*.

the powers of persuasion resulted in insufficient efforts to prevent water pollution in the Potomac River Basin.

On the opposite end of the scale, the SRBC has an abundance of power. It is, however, too narrowly focused on allocation of water resources and water quality related to consumption.<sup>182</sup> The SRBC's authority to propose new water quality standards to the legislature, and to promulgate rules to implement them, should be explored. 183 Such an arrangement would promote political accountability and ensure the individual state legislatures remain engaged. The SRBC's power to sue to compel compliance with the compact should also be considered. 184 In the past, the SRBC used its compulsory powers to compel individual municipalities to follow its basinwide plan. 185 During a controversy involving several municipalities around State College, Pennsylvania, the SRBC brought suit to prevent the municipalities from implementing their own water resource use conditions. 186 The Pennsylvania courts upheld the SRBC's authority to promulgate a basinwide plan and compel compliance with it. 187 Such a provision confers sufficient teeth to encourage compliance with a compact.

When creating the compact, the signatory states should come to an initial agreement that establishes comprehensive minimum regulatory standards for the entire watershed region. These standards should address the types of water pollutants that will be regulated, any chemicals to be phased out of agricultural use within the watershed, a general allocation of resources, minimum water quality standards, and land development requirements. The CBWC, once established, should have the authority to create a general watershed plan to achieve the compact standards set out by the signatory states. The plan shall include detailed instructions to be followed by the signatories' respective state agencies and any private organizations as they work toward the compact standards. The CBWC shall also promulgate the measures and annual targets required to carry out its plan and gauge its progress. This compact, however, should not vest the CBWC with the authority to set standards independently. Rather, it should authorize the CBWC to propose further standards, as necessary, to the legislatures of the signatory states. As with the SRBC, the CBWC should have the authority to sue to compel compliance with these standards and their own implementation rules.

Once the signatory states agree on the CBWC compact's terms, they should seek congressional approval. There is an element of uncertainty in petitioning for congressional approval. Congress is free to impose further conditions on the compacting states, or to alter the agreement as it deems nec-

essary. While there are certain risks in gaining congressional consent, when consent is granted it brings substantial benefits. Among these benefits is the opportunity to commit federal funds to the interstate compact agency to support the CBWC project. This should provide the downstream states of Maryland and Virginia with the opportunity to forego some federal funds apportioned to them, in favor of the upstream states, as an inducement to sign on.

The ability to apportion federal funding is key to realistically negotiating a successful CBWC compact. Given the expense of the restoration task involved and the disproportionate benefit the downstream states will gain from its success, apportioning more funds for the efforts upstream is advisable. In addition, once Congress approves the compact, its terms are enacted into federal law. 188 With the force of the federal government behind it, the resulting CBWC may be better positioned to negotiate with federal agencies on matters within the compact's purview. 189 When approving the compact, Congress may require various federal agencies to work around the compact's terms, which may help the CBWC reach its objective to unify the Chesapeake Bay's regulatory patchwork.<sup>190</sup> Furthermore, congressional consent is advantageous since it binds the signatory states to the agreement. Binding them together should ensure that the compact is uniformly implemented in both the statehouses and town halls across the entire watershed area.

#### VI. Conclusion

The collective history of the many efforts to restore the Chesapeake Bay indicates that lack of focus and direction frustrates the strength and quality of a group effort. The failure of repeated efforts to establish voluntary programs, and effectively coordinate the environmental restoration efforts on a watershedwide basis, demonstrates the need for a binding agreement. A single compact commission can more effectively lead the collective efforts and rally the numerous federal, state, interstate, educational, and private organizations around a single watershedwide plan. Once marshaled and coordinated, the collective resources of these numerous agencies and groups provide a larger pool over which to defray the total cost of restoring the Chesapeake Bay. With no one state or entity bearing disproportionate costs, as compared to their benefits received, the compacting states should make quick progress toward realizing a binding set of objectives.

<sup>182.</sup> Susquehanna River Basin Compact, art. 3, 84 Stat. 1509 (1970).

<sup>183.</sup> Id.

<sup>184.</sup> Id

<sup>185.</sup> Susquehanna River Basin Commission, *Preventing the Splintering of Authority: The State College Experience*, http://www.srbc.net/docs/statecol.htm (last visited Oct. 17, 2007).

<sup>186.</sup> Id.

<sup>187.</sup> Id.

<sup>188.</sup> Seattle Master Builders Ass'n v. Pacific Nw. Elec. Power & Conservation Planning Council, 786 F.2d 1359 1364 (9th Cir. 1986); see, e.g., Washington Metro. Area Transit Auth. v. One Parcel of Land, 706 F.2d 1312, 1316 (4th Cir.), cert. denied, 464 U.S. 893 (1983) (federal government may delegate powers to an organization established by compact).

<sup>189.</sup> See, e.g., Columbia Basin Land Protection Ass'n v. Schlesinger, 643 F.2d 585, 604-06, 11 ELR 20537 (9th Cir. 1975) (federal agencies subject to state water pollution standards), rev'd on other grounds, 42 U.S. 200, 211-13 (1976).

<sup>190.</sup> Id.