

Collaborating to Nowhere: The Imperative of Government Accountability for Restoring the Chesapeake Bay

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No multi-billion dollar initiative better illustrates the pitfalls of “collaborative partnerships”¹ than the Chesapeake Bay Program (“CBP” or “Bay Program”), a three-decade long effort that has achieved limited success in restoring highly degraded water quality in the world’s second largest estuary.² This uneasy alliance of six Bay states³ and the federal Environmental Protection Agency (“EPA”) has cost approximately four billion dollars, primarily in federal funds, but has, at best, achieved stasis in a watershed plagued by excessive nutrient loading and expanding dead zones.⁴ Given the large increases in popu-

lation and development that characterize the region, water quality could have gotten even worse.⁵ Even so, substantial improvement is what the partners promised and unquestionably did not achieve.⁶

The CBP has twice missed ambitious, but self-imposed goals to (1) reduce nutrient loading in the Bay by forty percent no later than the year 2000⁷ and (2) remove the Bay from EPA’s national list of waters impaired to the point that they can no longer support their designated uses (e.g., drinking, swimming, fishing, or boating).⁸ These failures may have embarrassed political leaders for a news cycle or two, but not to the point that they seriously considered overhauling their partnership in the CBP.⁹ Only when a blistering report by the Government Accountability Office (“GAO”) motivated actual cuts in CBP funding did the states in the partnership confront EPA’s determination to hold them accountable for reducing pollution.¹⁰

Slowly but surely, though, reform and revitalization are becoming manifest. In May 2009, President Obama issued Executive Order 13,508 on Chesapeake Bay Protection and

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1. The CBP describes itself as a “collaborative multi-state and federal partnership.” ROBERT KORONCAI ET AL., SETTING AND ALLOCATING THE CHESAPEAKE BAY BASIN NUTRIENT AND SEDIMENT LOADS: THE COLLABORATIVE PROCESS, TECHNICAL TOOLS AND INNOVATIVE APPROACHES 1 (2003), available at http://www.chesapeakebay.net/content/publications/cbp_19713.pdf (“The 1983 Chesapeake Bay Agreement set the stage for the collaborative multi-state and federal partnership.”).
2. Rena Steinzor & Shana Jones, *Reauthorizing the Chesapeake Bay Program: Exchanging Promises for Results* 1 (Ctr. for Progressive Reform, White Paper No. 903, June 2009), available at <http://www.progressivereform.org/articles/chesbayfinal.pdf>; see also *Chesapeake Bay*, U.S. ENVTL. PROT. AGENCY, <http://omp.gso.uri.edu/ompweb/doec/science/descript/bayches.htm> (describing the geography and geology of the Chesapeake Bay watershed) (last visited Dec. 16, 2012).
3. The Bay states include Delaware, the District of Columbia, Maryland, New York, Pennsylvania, and Virginia, although Maryland, Pennsylvania, and Virginia are by far the dominant partners. See *The Chesapeake Bay Watershed*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/discover/baywatershed> (last visited Dec. 16, 2012).
4. U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-08-1131R, RECENT ACTIONS BY THE CHESAPEAKE BAY PROGRAM ARE POSITIVE STEPS TOWARD MORE EFFECTIVELY GUIDING THE RESTORATION EFFORT, BUT ADDITIONAL STEPS ARE NEEDED 13 (2008) [hereinafter GAO, RECENT ACTIONS] (reporting \$3.7 billion in direct funding from 1995 to 2004, as well as \$1.9 billion in additional indirect funding).

5. Steinzor & Jones, *Reauthorizing the Chesapeake Bay Program*, *supra* note 2, at 1.
6. *Id.*
7. See Cynthia J. Aukerman, *Agricultural Diffuse Pollution Controls: Lessons for Scotland From the Chesapeake Bay Watershed*, 20 J. LAND USE & ENVTL. L. 191, 247 (2004) (describing the revision of the forty percent goal); see also Karl Blankenship, *Review Warns 40% Goal Won’t Be Enough*, CHESAPEAKE BAY J., Dec. 1997, available at http://www.bayjournal.com/article/review_warns_40_goal_will_not_be_enough (“After a yearlong review, the Bay Program has concluded that its decade-old goal of reducing the amount of nutrients entering the Chesapeake 40 percent by the year 2000 won’t happen unless control efforts are accelerated.”).
8. See CHESAPEAKE BAY FOUND., RESTORING CLEAN WATER AND THE CHESAPEAKE BAY 17 (2008), available at www.cbf.org/document.doc?id=53 (“It is now clear that, although the partners have made significant commitments, we will finish 2010 far from the achievement of the necessary pollution reduction goals.”). The requirements for the impaired waters list are in section 303(d) of the Clean Water Act (“CWA”), 33 U.S.C. § 1313(d) (2006).
9. See Steinzor & Jones, *Reauthorizing the Chesapeake Bay Program*, *supra* note 2, at 4.
10. U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-06-96, CHESAPEAKE BAY PROGRAM: IMPROVED STRATEGIES ARE NEEDED TO BETTER ASSESS, REPORT, AND MANAGE RESTORATION PROGRESS 5 (2005) [hereinafter GAO 2005 REPORT], available at <http://www.gao.gov/new.items/d0696.pdf>.

Restoration,¹¹ declaring the Bay a national treasure and signaling that EPA will play a strong role in leading Bay restoration.¹² The order marked a dramatic departure from EPA's traditional, hands-off posture, offering the promise of real federal leadership on Bay restoration.¹³ It required EPA to "examine how to make full use of its authorities under the Clean Water Act ("CWA") to protect and restore the Chesapeake Bay and its tributary waters" and to establish an "independent evaluator" to "strengthen accountability" and report periodically on progress made toward meeting Bay-wide goals.¹⁴

In 2011, EPA announced a mandatory Total Maximum Daily Load ("TMDL") for the Bay.¹⁵ This "pollution diet" includes ninety-two different limits for impaired water quality segments.¹⁶ If it stays the course of compelling the states to fulfill their commitments to write permits that reduce pollutant loading to the limits set in the TMDL, water quality in the Bay should improve steadily. Yet, EPA has encountered gale-force political resistance by congressional opponents of regulation and recalcitrant state and local politicians.¹⁷ Its ability to combat the same dynamics that sabotaged past restoration efforts is not yet clear.¹⁸

For example, despite the Executive Order's call for the creation of an independent evaluator for the Bay Program, the Bay states demurred.¹⁹ Instead of establishing a permanent and independent entity that would verify the implementation of federal and state programs on the ground, they opted for one-time funding to have the National Research Council ("NRC") of the National Academy of Sciences conduct yet another analysis of environmental conditions in the Bay and

the CBP's past shortcomings.²⁰ Among other findings, the NRC committee admitted that it "was unable to determine the reliability and accuracy of the [restoration] data reported by Bay jurisdictions," and recommended that "independent (third-party) auditing of the tracking and accounting at state and local levels would be necessary to ensure the reliability and accuracy of the data reported."²¹ As this Article goes to press, CBP officials have arrived once again at a crossroads, wavering between evaluating themselves by setting up internal "action teams" and establishing the truly independent evaluator called for in the Executive Order and recommended by the NRC.²²

An independent entity to monitor the performance of the CBP and to hold EPA and the states accountable for their efforts to reduce nutrient loading in the Bay is sorely needed. Despite their public posture of collaboration, states participate in the CBP primarily to protect their own interests and prevent the group from agreeing to restoration or pollution prevention programs that would cost too much money or anger crucial constituent groups.²³ Rather than take the Bay states at their word that promised programs are adequately funded and—even more important—are being implemented effectively, we urge the CBP to create an entity with the mission of ground-truthing such claims.²⁴ The independent evaluator must have adequate resources not only to conduct paper and interview-based audits, but also to spot-check state compliance by actually visiting the places where states claim that cover crops to prevent runoff were planted or tertiary sewage treatment was installed.²⁵ This entity

11. Exec. Order No. 13,508, 74 Fed. Reg. 23099, 23099 (May 15, 2009).

12. *Id.*

13. *Id.*

14. *Id.* § 206, 74 Fed. Reg. at 23101.

15. Clean Water Act § 303(d); Notice for the Establishment of the Total Maximum Daily Load ("TMDL") for the Chesapeake Bay, 76 Fed. Reg. 549, 549–50 (Jan. 5, 2011). Controlling traditional "point sources" of pollution by requiring them to meet technology-based permit requirements is only the first step under the Clean Water Act's regulatory scheme. CWA §§ 301–09, 33 U.S.C. §§ 1311–19 (2006). Under section 303(d) of the CWA, if point source controls are implemented but water quality standards nevertheless remain unmet, states must take a second step: they must define the total amount of specific pollution a waterbody can take (the TMDL) and then distribute the pollution loadings among point source dischargers and nonpoint and natural sources. CWA § 303, 33 U.S.C. § 1313(d) (2006). States must then work to meet the new TMDL limits, which usually requires point sources to face more stringent permit requirements and raises the possibility for increased state regulation of nonpoint sources. *Id.*; see also OLIVER A. HOUCK, THE CLEAN WATER ACT TMDL PROGRAM: LAW, POLICY, AND IMPLEMENTATION 140 (2d ed. 2002) (describing the policy history of EPA's efforts to fulfill its obligations to implement the TMDL provisions of the CWA).

16. Clean Water Act § 303(d), 76 Fed. Reg. at 549.

17. Doug Siglin, *Change You Must Believe In*, CHESAPEAKE BAY ACTION PLAN (Jan. 10, 2012), <http://www.bayactionplan.com/2012/01/change-you-must-believe-in/>.

18. *Am. Farm Bureau Fed'n v. U.S. Env'tl. Prot. Agency*, 559 F.3d 512, 536–39 (D.C. Cir. 2009).

19. Chesapeake Bay Program, Independent Evaluator: Key Challenges 14 (Nov. 1, 2011) (unpublished draft report), [available at](http://archive.chesapeakebay.net/pubs/calendar/34450_11-01-11_Report_1_11574.pdf) http://archive.chesapeakebay.net/pubs/calendar/34450_11-01-11_Report_1_11574.pdf; see also Steinzor & Jones, *Reauthorizing the Chesapeake Bay Program*, *supra* note 2, at 3 (urging adoption of an Independent Evaluator function for the first time).

20. Chartered by Congress in 1863, the National Academy of Sciences ("NAS") is a private and nonprofit society of distinguished scholars who advise the federal government on scientific and technical matters. *Who We Are*, NAT'L ACAD. OF SCIS., <http://www.nationalacademies.org/about/whoweare/index.html> (last visited Dec. 16, 2012). Organized by the NAS in 1916, the National Research Council ("NRC") is the operating agency for NAS, consisting of a staff that enlists, organizes, and supports experts from around the nation—who are unpaid for their service on NAS study committees—to issue studies and reports upon request. NAT'L ACADEMIES, WORKING WITH THE NATIONAL ACADEMIES: A GUIDE FOR PROSPECTIVE STUDY SPONSORS (n.d.), *available at* http://dels.nas.edu/resources/static-assets/exec-office-other/sponsor_brochure.pdf. In 2009, EPA requested the NRC to "evaluate and provide advice on the CBP nutrient reduction program and strategy, [specifically directing] the NRC to evaluate the tracking of best management practice implementation, tracking and accounting efforts, the two-year milestone strategy, and the states' and federal agencies' adaptive management strategies, and to suggest improvements to these strategies that might better attain the CBP goals." NAT'L RESEARCH COUNCIL, NAT'L ACAD. OF SCIS., ACHIEVING NUTRIENT AND SEDIMENT REDUCTION GOALS IN THE CHESAPEAKE BAY: AN EVALUATION OF PROGRAM STRATEGIES AND IMPLEMENTATION viii (2011) [hereinafter NAS/NRC COMMITTEE REPORT], *available at* www.nap.edu/catalog.php?record_id=13131.

21. NAS/NRC COMMITTEE REPORT, *supra* note 20, at 4.

22. Chesapeake Bay Program, Independent Evaluator, *supra* note 19, at 12; Minutes from Chesapeake Bay Program Principals' Staff Comm. Meeting (Feb. 16, 2012), *available at* [http://www.chesapeakebay.net/channel_files/17880/attachment_i.a\)_psc_actions_and_decisions_2-16-12_revised_4-19-12.docx](http://www.chesapeakebay.net/channel_files/17880/attachment_i.a)_psc_actions_and_decisions_2-16-12_revised_4-19-12.docx).

23. As part of our work for the Center for Progressive Reform, we were among the first to advocate for the independent evaluator function as a crucial element of EPA's then nascent effort to enforce the Bay-wide TMDL. See, e.g., Steinzor & Jones, *Reauthorizing the Chesapeake Bay Program*, *supra* note 2, at 3 (urging the implementation of an independent audit function for the first time).

24. *Id.*

25. Memorandum from Shana Jones, Senior Policy Analyst, Ctr. for Progressive Reform, & Rena Steinzor, Pres., Ctr. for Progressive Reform, to the Principals' Staff Comm. 1–9 (Sept. 3, 2008), *available at* http://www.progressivereform.org/articles/Bay_Accountability_Office_Options_Memo.pdf.

should consist of a senior person of impeccable integrity and a small staff.²⁶ To ensure its independence, the office should also report directly to the CBP Executive Council.²⁷

This Article opens with an analysis of why the CBP will repeat its past failures unless a reliable mechanism for ensuring accountability is created. It then explains how the independent evaluator should be constructed to make possible the overall success of Bay restoration. Finally, it closes with a rebuttal of the arguments in favor of self-auditing and against independent review.

I. Why Collaboration as Usual Means Collaborating to Nowhere

The Chesapeake Bay is a poster child both for the wicked problem of multi-jurisdictional pollution²⁸ and for our nation's historic failure of political will to regulate agriculture and tackle land use.²⁹ Most of the Chesapeake Bay and its tidal waters are listed as impaired under the CWA because of excess nitrogen, phosphorus, and sediment pollution,³⁰ also known as nutrient pollution.³¹ Nutrients "cause algae blooms that consume oxygen and create 'dead zones'" in the Bay that choke fish and shellfish and destroy underwater grasses and aquatic life.³² Agriculture is the largest source of nutrient pollution in the Bay, followed by runoff from urban and suburban development.³³ Agricultural runoff controls are inconsistent across the watershed, unfortunately, as it is largely exempted under the CWA.³⁴

The CBP incontestably faces a daunting task: it must restore the second largest estuary³⁵ in the world despite the fact that almost half of the pollution plaguing the Bay is generated by unregulated, nonpoint sources located in multiple jurisdictions.³⁶ The CBP has unquestionably failed to accomplish the maximum pollution reductions achievable under its existing legal authority, however, and it has never been forthcoming about the increasingly urgent need to draw agriculture within the scope of the CWA's jurisdiction. The following discussion will analyze why the CBP has failed to make significant progress, explaining how the partnership's failures reveal the dysfunction that inevitably arises when an institution's design—in this case, a "collaborative partner-

ship" with voluntary, non-binding goals—cannot cope with the jurisdictional, environmental, and stakeholder dynamics that necessitated action in the first place.³⁷

One threshold reason for the CBP's shortcomings is almost painfully obvious, although no one engaged in "collaborating to nowhere" dares to state it clearly in public: the states vary widely in their commitments to Bay restoration or, to use a common colloquialism, the level of "skin in the game" they each have chosen to muster. One of the three most important players in the CBP—Pennsylvania—has far less incentive to participate affirmatively in a voluntary restoration effort than the two other key players, Maryland and Virginia.³⁸ Equally troubling, although Maryland and Virginia bemoan Pennsylvania's inaction, they also find Pennsylvania a convenient scapegoat and plausible cover for their own lack of progress, delaying the hard choices they must also make if the Bay is to be restored.³⁹ As we describe in more detail below, the symptoms of this mismatch include diminished accountability, an increasingly opaque and complicated bureaucracy, a penchant for "lowest common denominator solutions," and a lack of focus on coming clean about whether the states and EPA are doing enough to achieve measurable results.⁴⁰ Unless reversed, the implication of these dynamics is no less than the slow but inexorable death of the Chesapeake Bay's ecology.

A. Causation: Different Jurisdictions, Different Stakes, and Unregulated Agriculture

Anyone who negotiates for a living learns a threshold lesson very quickly: unless the parties share an approximately equal stake in resolving their problems voluntarily, talks are unlikely to prove productive. Of course, the parties' ineptitude can scuttle settlement even when it is clearly in everyone's interests. The most gifted negotiators in the world cannot achieve resolution when at least one party is convinced that his alternative to agreement is preferable. As this Article will show, this basic fact underlies why the CBP's cooperative partnership has repeatedly missed its own deadlines for

26. *Id.*

27. *Id.*

28. U.S. ENVTL. PROT. AGENCY, CHESAPEAKE BAY TMDL EXECUTIVE SUMMARY ES-7 (2010), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/BayTMDLExecutiveSummaryFINAL122910_final.pdf.

29. Jeffrey M. Gaba, *New Sources, New Growth, and the Clean Water Act*, 55 ALA. L. REV. 651, 652 & n.12, 662 (2004).

30. U.S. ENVTL. PROT. AGENCY, CHESAPEAKE BAY TMDL, *supra* note 28, at ES-3.

31. *Nutrients*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/issues/issue/nutrients#inline> (last visited Dec. 16, 2012).

32. U.S. ENVTL. PROT. AGENCY, CHESAPEAKE BAY TMDL, *supra* note 28, at ES-3.

33. *Id.*

34. CWA § 502(14), 33 U.S.C. § 1362(14) (2006) (exempting agricultural stormwater from definition of "point source"); see also PEW ENV'T GRP., BIG CHICKEN: POLLUTION AND INDUSTRIAL POULTRY PRODUCTION IN AMERICA 17–18 (2011) [hereinafter *BIG CHICKEN*], available at www.pewenvironment.org/uploadedFiles/PEG/Publications/Report/PEG_BigChicken_July2011.pdf; Gaba, *supra* note 29, at 652, 662.

35. *Chesapeake Bay*, *supra* note 2.

36. U.S. ENVTL. PROT. AGENCY, CHESAPEAKE BAY TMDL, *supra* note 28, at ES-7.

37. See *infra* Part I.A.

38. See *infra* Part I.A.; OCEAN STUDIES BD. & WATER SCI. & TECH. BD., NAT'L RESEARCH COUNCIL, CLEAN COASTAL WATERS: UNDERSTANDING AND REDUCING THE EFFECTS OF NUTRIENT POLLUTION 2 (2000), available at <http://www.nap.edu/openbook.php?isbn=0309069483> (explaining that while nutrient pollution harms the Susquehanna's water quality, it causes less damage as it passes through the fast-moving and deep river than when it reaches the Bay's warm, shallow, and slow-moving estuary); *Maps*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/maps> (last visited Dec. 16, 2012) (showing that the Chesapeake Bay is bordered by the states of Maryland and Virginia but is only connected to Pennsylvania by means of the Susquehanna River).

39. Darryl Fears, *Alarming "Dead Zone" Grows in the Chesapeake*, WASH. POST (July 24, 2011), http://www.washingtonpost.com/national/health-science/alarming-dead-zone-grows-in-the-chesapeake/%202011/07/20/gIQABRM-KXl_story.html ("Especially heavy flows of tainted water from the Susquehanna River brought as much nutrient pollution into the bay by May as normally comes in an entire average year, a Maryland Department of Natural Resources researcher said.")

40. See Rena Steinzor & Shana Jones, *An Accountability Mechanism for the Chesapeake Bay: Interview Findings* 2–3, 5–7 (Ctr. for Progressive Reform, White Paper No. 808, 2008), available at http://www.progressivereform.org/articles/Chesapeake_Bay_808.pdf.

water quality improvement.⁴¹ The states participating in the program simply do not have anything close to an equal stake in Bay restoration because of how the jurisdictional lines fall and how nutrient pollution works.⁴²

The geography of the CPB's three most important players—Maryland, Virginia, and Pennsylvania—means that each state has remarkably different incentives to participate in restoration.⁴³ The Chesapeake Bay is bordered by the states of Maryland and Virginia, but is only connected to Pennsylvania by means of the Susquehanna River.⁴⁴ The Susquehanna River, which drains into the Bay at Conowingo, Maryland, is located almost entirely in the state of Pennsylvania, although its headwaters are in New York.⁴⁵ It provides fifty percent of the Bay's freshwater because the Bay is the "ria" of the Susquehanna—in essence, a drowned river valley that formed into an estuary.⁴⁶

Unfortunately, the Susquehanna is not only the Bay's most important freshwater source, but due to agricultural pollution, it is also the leading contributor to the Bay's demise.⁴⁷ The river delivers almost half of the nitrogen pollution loads to the Bay (forty-four percent).⁴⁸ In contrast, Virginia and Maryland, *combined*, deliver roughly the same amount, at twenty-seven percent and twenty percent respectively.⁴⁹ The largest dead zone in Bay history, covering one-third of the watershed during the summer and fall of 2011, was blamed on nutrient run-off from Pennsylvania's Susquehanna River.⁵⁰

Taking a geographic, economic, and perhaps even environmental point of view, Pennsylvania's regressive behavior in the absence of strong federal leadership becomes more understandable.⁵¹ Although nutrient pollution certainly harms the Susquehanna's water quality, it causes less damage as it passes through the fast-moving and deep river than when it reaches the Bay's warm, shallow, and slow-moving estuary.⁵² Dead zones do not plague the Susquehanna like

they plague the Bay.⁵³ Further, Pennsylvania does not have waterside real estate. The state has no physical or cultural connection to the Bay, as opposed to the watershed, nor does it receive any real economic benefit from it. In contrast, the aesthetic, cultural, and economic values the Bay brings to Maryland and Virginia are considerable—the seafood industry alone in these states "contributed \$3.39 billion in sales, \$890 million in income, and almost 34,000 jobs to the local economy."⁵⁴

To complicate matters even further, only a little more than half of the entire state of Pennsylvania falls within the Bay watershed.⁵⁵ This kind of problem, as Professor Brad Karkkainen points out, represents severe inconsistencies in territorial scale, where environmental pollution does not track sovereign boundaries.⁵⁶ Not only does Pennsylvania as a whole get no real benefit from the threatened resource at issue—a classic transboundary pollution problem—but only half of the state sits within the Bay watershed, diluting the political pressure to take action to "save the Bay" when this big and, in recent years, economically stressed state must decide how to spend diminishing government resources.⁵⁷ In short, we suspect that Pennsylvania—a state that contributes forty-four percent of the nitrogen, twenty-four percent of the phosphorus, and thirty-two percent of the sediment pollution that is choking the Bay—has too little incentive to cooperate with restoration unless the federal government compels it to do so.⁵⁸ State funding patterns reflect these dynamics. In 2010, for example, Pennsylvania spent \$166.7 million, Maryland spent \$256.6 million, and Virginia spent \$367 million on Bay restoration.⁵⁹

The differing stakes that states have in the preservation of transboundary natural resources is among the most important justifications of federal environmental laws and their enforcement by EPA.⁶⁰ Despite these challenging realities, including the pathways of nutrient pollution and the economics of the region, federal funding is not provided in proportion to Pennsylvania's role in the problem.⁶¹ In 2010, Pennsylvania received approximately \$10.5 million in federal funding for Bay-related efforts, while Maryland received \$44.85 million and Virginia received \$31.2 million.⁶² Investing limited funds purely on the basis of where federal dollars might achieve the biggest bang for the buck might well cause Pennsylvania's share to increase substantially. Of

41. See *supra* notes 1–10.

42. See *supra* notes 37–38.

43. See *supra* note 38.

44. See *Maps*, *supra* note 38.

45. *The Susquehanna River*, SUSQUEHANNA RIVER VALLEY VISITORS BUREAU, <http://www.visitcentralpa.org/page.asp?tid=135&name=The-Susquehanna-River> (last visited Dec. 16, 2012).

46. *Captain John Smith Chesapeake National Historic Trail: The Chesapeake Formation*, U.S. NAT'L PARK SERV., <http://www.smithtrail.net/the-chesapeake/formation/> (last visited Dec. 16, 2012).

47. See *supra* notes 25–27.

48. U.S. ENVTL. PROT. AGENCY, SOURCES OF NITROGEN, PHOSPHORUS AND SEDIMENT TO THE CHESAPEAKE BAY 4-2 (2010), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/CBayFinalTMDLSection4_final.pdf.

49. *Id.* at 4-1. At forty-three percent, Virginia dominates phosphorus loads to the Bay. *Id.* 4-2. Pennsylvania and Maryland follow at twenty-four percent and twenty percent, respectively. *Id.* Sediment loading estimates are similar, with Virginia at forty-one percent, Pennsylvania at thirty-two percent, and Maryland at seventeen percent. *Id.*

50. Fears, *supra* note 39 ("Especially heavy flows of tainted water from the Susquehanna River brought as much nutrient pollution into the bay by May as normally comes in an entire average year, a Maryland Department of Natural Resources researcher said.")

51. Pollution quickly moved by one state's river into another state's bay does not end up in the "backyard" of the river state. See OCEAN STUDIES BD. & WATER SCI. & TECH. BD., *supra* note 38, at 2.

52. *Id.*

53. *Id.*

54. CHESAPEAKE BAY FOUND., THE ECONOMIC ARGUMENT FOR CLEANING UP THE CHESAPEAKE BAY AND ITS RIVERS 5 (2012), available at <http://www.cbf.org/document.doc?id=1094>.

55. See *Maps*, *supra* note 38.

56. Bradley C. Karkkainen, *Managing Transboundary Aquatic Ecosystems: Lessons From the Great Lakes*, 19 PAC. MCGEORGE GLOBAL BUS. & DEV. L.J. 209, 221 (2006).

57. See *id.* (describing a prominent example of this dynamic: the Great Lakes).

58. U.S. ENVTL. PROT. AGENCY, SOURCES OF NITROGEN, PHOSPHORUS AND SEDIMENT, *supra* note 48, at 4-2.

59. *Partner Coordination & Support: Bay Funding*, CHESAPEAKESTAT, http://stat.chesapeakebay.net/?q=node/127&quicktabs_25=2 (last visited Dec. 16, 2012).

60. For a discussion of the factors that motivate environmental federalism, see Rena Steinzor, *Unfunded Environmental Mandates and the "New (New) Federalism": Devolution, Revolution, or Reform*, 81 MINN. L. REV. 97, 165–75 (1996).

61. *Id.*

62. *Id.*

course, we suspect that Pennsylvania's own reluctance to invest in cleanup is the reason the federal government is provoked to lessen its contribution to the state's programs. In any event, until and unless Pennsylvania's recalcitrance is overcome, reaching TMDL targets will remain extraordinarily challenging.

Confounding these tensions is the reality that large swaths of industrial agriculture remain unregulated under the CWA, and Congress appears to lack the wherewithal to plug this gaping loophole any time soon.⁶³ Throughout the watershed, the agricultural industry is consolidating, with the result that animal manure and runoff are increasing as more and more animals are concentrated on small lots.⁶⁴ Over the past fifty years, the number of chickens produced annually has increased, the poultry industry has industrialized, and huge companies like Perdue, known as "integrators," have concentrated the operations that grow their chickens around their large meat processing facilities in a relatively small number of Southern states that include Maryland, Delaware, and Virginia.⁶⁵ The result: large-scale operations in limited geographic areas creating too much manure for the surrounding cropland to absorb.⁶⁶ This runoff ends up washing into the local waterways that lead to the Bay.⁶⁷

Pennsylvania's Lancaster County stands out as a glaring example of this unfortunate trend.⁶⁸ The county's runoff, which drains into the Susquehanna River, is a tiny fraction—1.5%—of the entire Chesapeake watershed.⁶⁹ Yet, thanks to the twenty-two million cows, pigs, chickens, and turkeys located in Lancaster County, it manages to generate more nitrogen from manure than any other county in the watershed.⁷⁰ The surrounding fields simply cannot absorb the tremendous amount of manure—seventy-two million pounds annually—that is produced.⁷¹

In the "Delmarva" region, which includes the Eastern Shore areas of Delaware, Virginia, and Maryland, efforts by any one state to crack down on the largest source of nutrient loading in the Bay—agriculture, including animals and crops⁷²—invariably provoke threats that large employers like Perdue will simply move their operations a little further

up the road, into the more welcoming territory of another state jurisdiction.⁷³

For much of the past three decades, EPA has confined its efforts in the Bay to fielding staff experts to advise state members of the CBP in their endless rounds of collaboration without using its legal authority to issue and enforce binding limits on pollution that ruins water quality.⁷⁴ Without strong federal leadership, these disparities among the CBP partners doom dialogue among the states to posturing and recriminations, especially when the only consequence of that behavior may be exactly what some states want: little action and more delay.⁷⁵

President Obama's election and the appointment of Lisa Jackson as EPA Administrator presented landmark opportunities to change these dynamics.⁷⁶ In 2009, President Obama's Executive Order on Chesapeake Bay Protection and Restoration required EPA to "examine how to make full use of its authorities under the Clean Water Act to protect and restore the Chesapeake Bay and its tributary waters."⁷⁷ EPA responded in 2011 with the "Bay Total Maximum Daily Load" ("Bay TMDL"), which includes new limits for each of the ninety-two "impaired water quality segments" flowing into the Bay and constitutes the nation's first regional TMDL.⁷⁸ The Bay TMDL's requirements are creating new pressures on Bay jurisdictions to achieve increased reductions from sewage treatment plants, develop stronger stormwater controls, and develop better land use practices to control nonpoint source pollution.⁷⁹ Indeed, the apparent progress that has been made in the past two years under the Bay TMDL effort stands in stark contrast to the Bay Program's poor track record, suggesting that the Bay TMDL's structure of legal consequences, specific timelines, and the possibility

63. 40 C.F.R. § 122.3(e) (2012) (exempting "[a]ny introduction of pollutants from non point-source agricultural and silvicultural activities, including storm water runoff from orchards, cultivated crops, pastures, range lands, and forest lands . . .").

64. BIG CHICKEN, *supra* note 34, at 1–2.

65. *Id.*

66. *Id.* at 8–13.

67. *Id.*

68. CHESAPEAKE BAY FOUND., WATERS AT RISK: POLLUTION IN THE SUSQUEHANNA WATERSHED—SOURCES AND SOLUTIONS 4 (2006), available at <http://www.cbf.org/document.doc?id=197> ("Lancaster County [is] the second largest producer of agricultural products east of the Mississippi, fifth in livestock production nationally, and the largest producer of manure in the Chesapeake Bay drainage basin.").

69. *Id.*

70. *Id.*

71. *Id.*

72. U.S. ENVTL. PROT. AGENCY, SOURCES OF NITROGEN, PHOSPHORUS AND SEDIMENT, *supra* note 48, at 4–29 ("Agriculture is the largest single source of nitrogen, phosphorus, and sediment loading to the Bay through applying fertilizers, tilling croplands, and applying animal manure. Agricultural activities are responsible for approximately 44 percent of nitrogen and phosphorus

loads delivered to the Bay and about 65 percent of sediment loads delivered to the Bay.").

73. See PAUL E. GUTERMANN & DAVID H. QUIGLEY, DROWNING IN A SEA OF CLEAN WATER ACT REGULATION 3–4 (2000), available at <http://www.akingump.com/files/Publication/ecb32f29-436c-49b0-9cfa-026798edadf2/Presentation/PublicationAttachment/34189918-0cab-496f-b712-074f8be389d4/99.pdf> (exemplifying the kind of analysis that implies that strengthening environmental controls on farmers will cause the industry to move elsewhere).

74. The Reasonable Assurance letter for the TMDL shows how far EPA could have gone if it had chosen to do so. See Letter from Donald S. Welsh, Reg'l Adm'r, U.S. Envtl. Prot. Agency, to John Griffin, Sec'y, Md. Dep't of Natural Res. (Sept. 11, 2008), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/EPARegionIIIlettertoPSC091108.pdf.

75. See HOWARD R. ERNST, FIGHT FOR THE BAY: WHY A DARK GREEN ENVIRONMENTAL AWAKENING IS NEEDED TO SAVE THE CHESAPEAKE BAY 12–14 (2009).

76. See Press Release, U.S. Envtl. Prot. Agency, EPA Administrator Lisa P. Jackson Testimony Before the U.S. Senate, Appropriations Subcommittee on Department of the Interior, Environment, and Related Agencies (May 16, 2012), available at <http://yosemite.epa.gov/opa/admpress.nsf/d0c-f6618525a9efb85257359003fb69d/b8c60367c90d9e7d85257a00005596c2!opendocument> (requesting more funding for protecting the Chesapeake Bay); About Administrator Lisa Jackson, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/aboutepa/administrator.html> (last updated Dec. 10, 2012); see also Exec. Order No. 13,508, 74 Fed. Reg. 23099, 23100 (May 15, 2009) (setting goals for the federal government's role in Chesapeake Bay restoration).

77. Exec. Order No. 13,508, 74 Fed. Reg. at 23101.

78. Clean Water Act § 303(d): Notice for the Establishment of the Total Maximum Daily Load (TMDL) for the Chesapeake Bay, 76 Fed. Reg. 549, 549–50 (Jan. 5, 2011).

79. *Id.*

of rulemaking and denial of funding may create results in a way that a “collaborative partnership” simply cannot.⁸⁰

B. Symptomatology: Institutional Design Mismatch

An understanding of the cumulative impact of the *institutional* problems that plague Bay restoration efforts requires a more detailed evaluation of how the CBP partnership evolved. The CBP is the oldest, voluntary, watershed management program in the country and has been hailed by some “new governance” scholars as an example of how post-regulatory, collaborative approaches can work.⁸¹ We do not quarrel with the underlying imperative of holistic, watershed management that is implied in such rosy characterizations of the CBP.⁸² Rather, we are convinced that a harder look at how the CBP works in practice reveals the stark limitations of volunteerism that depends on high federal funding levels and the tough, practical institutional design changes that are now necessary if the CBP is serious about improving how it works to restore the Bay.

The CBP is a bureaucracy created by statute,⁸³ as well as a creature of agreements made by its federal and state partners—an arrangement that not only dilutes the program’s mission, but also creates confusion as to who—EPA? the states? the CBP itself?—has final responsibility for honoring the program’s commitments to restoring the Bay.⁸⁴ The CBP got its start in 1983, after a twenty-seven million dollar study sponsored by Senator Charles “Mac” Mathias (R-MD.) pinpointed excess nutrient pollution as the cause of the Bay’s rapid decline and the first of three “Bay Agreements” was signed.⁸⁵ Considering the four billion dollar effort and bureaucracy that subsequently evolved, the first Bay Agreement was modest in scope—a one-page document that created the Executive Council,⁸⁶ a group that consisted of the respective state “cabinet designees” to oversee

the coordination of Bay restoration efforts and to establish a “liaison office for Chesapeake Bay activities.”⁸⁷ Congress subsequently incorporated this agreement into the CWA when it created the Bay Program in 1983, defining the signatories of the Agreement as the “Executive Council” and tasking it with “direct[ing]” the Bay Program.⁸⁸ Although the 1983 Agreement is a short document, it nevertheless set the tone for the voluntary culture of the Bay Program for decades to come, stating that “a cooperative approach is needed . . . to fully address the extent, complexity, and sources of pollutants entering the Bay” and avoiding legally binding commitments.⁸⁹

A second and more robust Bay Agreement followed in 1987.⁹⁰ Significantly, it not only created far more substantive and detailed—albeit non-binding—policy goals, including an agreement to reduce nitrogen and phosphorus pollution by forty percent no later than 2000, but it also changed the membership of the Executive Council to replace the cabinet secretaries with the governors of the signatory states (Virginia, Maryland, and Pennsylvania) and to include both the EPA Administrator and the chair of the Chesapeake Bay Commission on the Council.⁹¹ In 1992, the 1987 Agreement was amended, reaffirming the forty percent reduction goal and expanding the CBP’s focus beyond the basin itself by emphasizing the importance of addressing nonpoint source pollution in the tributaries draining into the Bay.⁹²

The third agreement—Chesapeake 2000 (“C2K”)—continued in the same direction as the previous two agreements, enhancing and emphasizing “the ecosystem management aspects of the Program, at least on paper.”⁹³ From “set[ting] a new goal with implementation schedules for additional migratory and resident fish passages that addresses the removal of physical blockages” to “establish[ing] harvest targets for the blue crab fishery” to “defin[ing] the water quality conditions necessary to protect aquatic living resources,” C2K was a

80. See, e.g., Sustainable Growth and Preservation Act, 2012 Md. Laws 149 (enacted) (requiring new regulations for proposed septic systems). The preamble to Act emphasizes how it is designed to respond to the Bay TMDL and support Maryland’s efforts to meet its Phase II WIP reductions under the TMDL. *Id.*

81. Annecoos Wiersema, *A Train Without Tracks: Rethinking the Place of Law and Goals in Environmental and Natural Resources Law*, 38 ENVTL. L. 1239, 1254–82 (2008) (citing Robert Costanza & Jack Greer, *The Chesapeake Bay and Its Watershed: A Model for Sustainable Ecosystem Management*, in BARRIERS AND BRIDGES TO THE RENEWAL OF ECOSYSTEMS AND INSTITUTIONS 169 (Lance H. Gunderson, C.S. Holling & Stephen S. Light eds., 1995)). *But see* ERNST, *supra* note 75, at 10 (calling, provocatively, Bay restoration efforts a “political deadzone”). Ernst aptly describes how the CBP was hobbled at the outset because it lacked the authority to regulate. *Id.* at 15. Ultimately, Ernst diagnoses the problem as a being one of “light green environmentalism” and a lack of political will, arguing that a “dark green” approach to Bay restoration that isn’t afraid of conflict is necessary. *Id.* at 23.

82. For a positive characterization of the partnership, see Jon Cannon, *Choices and Institutions in Watershed Management*, 25 WM. & MARY ENVTL. L. & POL’Y REV. 379 (2000).

83. CWA § 117(b)(2)(B), 33 U.S.C. § 1267(b)(2)(B) (2006).

84. See *supra* notes 48–60 and accompanying discussion.

85. *Chesapeake Bay Program History*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/about/how/history> (last visited Dec. 16, 2012).

86. Chesapeake Bay Program, 1983 Chesapeake Bay Agreement 1 (Dec. 9, 1983) (unpublished agreement), available at http://www.chesapeakebay.net/content/publications/cbp_12512.pdf [hereinafter 1983 Chesapeake Bay Agreement]. The signatories included the governors of Maryland, Virginia, and Pennsylvania, the mayor of the District of Columbia, and the Administrator of EPA. *Id.*

87. *Id.*

88. CWA § 117(a)(4)–(5), 33 U.S.C. § 1267(a)(4)–(5) (defining “Chesapeake Bay Program” to mean “the program directed by the Chesapeake Executive Council in accordance with the Chesapeake Bay Agreement” and defining “Chesapeake Executive Council” to mean “the signatories to the Chesapeake Bay Agreement.”).

89. See 1983 Chesapeake Bay Agreement, *supra* note 86, at 1.

90. See Chesapeake Bay Program, 1987 Chesapeake Bay Agreement 1 (Dec. 15, 1987) [hereinafter 1987 Chesapeake Bay Agreement] (unpublished agreement), available at http://www.chesapeakebay.net/content/publications/cbp_12510.pdf.

91. *Id.* at 3, 6. It also, as Professor Annecoos Wiersema points out, called for a type of adaptive management, as it provided that it would “revalu[ate]” its forty percent nitrogen reduction target in four years, “based on the results of modeling, research, monitoring and other information available at that time.” Wiersema, *supra* note 81, at 1270 (quoting 1987 Chesapeake Bay Agreement 3) (providing a good overview of the history of the CBP). Ironically, the NRC found that “[n]either the EPA nor the Bay jurisdictions exhibit a clear understanding of adaptive management and how it might be applied in pursuit of water quality goals.” NAS/NRC COMMITTEE REPORT, *supra* note 20, at 7; see *infra* Part II.E (discussing why adaptive management should not be a substitute for an independent evaluator).

92. See Chesapeake Bay Program, Chesapeake Bay Agreement: 1992 Amendments 1 (Aug. 12, 1992) [hereinafter Chesapeake Bay Agreement: 1992 Amendments] (unpublished agreement), available at http://www.chesapeakebay.net/content/publications/cbp_12507.pdf.

93. Wiersema, *supra* note 81, at 1271.

comprehensive and ambitious document.⁹⁴ The head-water states Delaware, New York, and West Virginia,⁹⁵ subsequently signed a Memorandum of Understanding, agreeing, among other things, to “[w]ork cooperatively to achieve the nutrient and sediment reduction targets that we agree are necessary to achieve the goals of a clean Chesapeake Bay by 2010, thereby allowing the Chesapeake and its tidal tributaries to be removed from the list of impaired waters.”⁹⁶

All of this paperwork could look like progress, but it was not.⁹⁷ The Bay simply did not improve. Yet, this history is important because it established the institutions that remain active to this day. For example, the Executive Council was established at the top of the Bay Program’s organizational chart, where it remains, according to the CPB’s website, “accountable to the public for progress made under the Bay agreements.”⁹⁸ Although the history reveals an increasing awareness among the partners of the complexity of the Bay’s ecosystem and the technical complexity of restoring it, the CBP’s track record also reveals a disturbing trend: the members of the Executive Council—predominantly governors who serve two terms at best—have been setting goals for a program that will come due long after they leave office.⁹⁹ This practice allows them to sidestep genuine accountability and saddles their successors with the inevitably harsh reaction in the media and among the public when deadlines arrive and are not met.¹⁰⁰

Moreover, the CBP’s history reveals an increasingly complicated and growing web of *voluntary* interim goals that further confuse accountability. One such agreement generated more than one hundred non-binding goals that, in hindsight, were too broad to direct on-the-ground management and too vague to reveal who was responsible for implementing them.¹⁰¹ The result was an increasingly opaque bureaucracy with a continually revolving leadership that was bound together only by voluntary goals and sitting on top of so many moving parts that no one could properly be held accountable.¹⁰² Long-time Bay Program participants agree

that the CBP’s “slow-moving collaborative structure” is its greatest weakness, resulting in “lowest common denominator solutions” and a lack of focus instead of increased accountability for progress.¹⁰³

Although the Executive Council meets annually and always takes a moment for a photo-op,¹⁰⁴ much of the substantive decision-making and agenda-setting is delegated to the Principals’ Staff Committee (“PSC”), which is one “layer” down in the CBP hierarchy and one-step removed from overt press and public scrutiny.¹⁰⁵ The PSC primarily consists of high-level, career environmental regulators and resource managers representing various federal and state agencies—the U.S. Fish and Wildlife Service, EPA Region III, the Pennsylvania Department of Conservation and Natural Resources, the Virginia Department of Agriculture and Forestry, and the Maryland Department of the Environment—just to name a few.¹⁰⁶ The PSC once oversaw the CBP’s Implementation Committee, but after a recent reorganization, it now oversees the Management Board.¹⁰⁷

The members of the PSC are clearly some of the most capable experts in their respective policy arenas, but their loyalties rest not with the CBP but with the state, agency, and/or constituency they represent.¹⁰⁸ The PSC is designed, in large part, to ensure that each state’s concerns are represented and that the states are not pushed outside their comfort zones.¹⁰⁹ Despite their well-advertised and cheerfully optimistic pledges of fealty to a collaborative partnership, state government officials who participate in the CBP must ensure in the first instance that their own state’s interests are well-guarded.¹¹⁰ Highly suspicious of each other’s efforts to advertise often meager accomplishments, their

institutions, represented through the Scientific and Technical Advisory Committee; More than 60 non-governmental organizations, including businesses, non-profits and advocacy groups”).

103. Steinzor & Jones, *An Accountability Mechanism*, *supra* note 40, at 3.

104. See, e.g., Press Release, Chesapeake Bay Program, New Course Charted for Chesapeake Bay’s Recovery (May 12, 2009), available at http://www.chesapeakebay.net/presscenter/release/new_course_charted_for_the_chesapeake_bays_recovery (touting the results of a meeting of the Executive Council); *Stormwater Utility Participates in Chesapeake Bay Meeting*, CITY OF RICHMOND DEPT. OF PUB. UTILS. (2011), <http://www.richmondgov.com/PublicUtilities/documents/CheaspBayExecMeeting11July11.pdf> (touting the participation of the city of Richmond in Program activities); Kate Yanchulis, *Governors Calls for Cooperation in Chesapeake Bay Cleanup*, NEWS 21 (June 4, 2010), <http://chesapeake.news21.com/blog/index.php/2010/06/04/governors-call-for-cooperation-in-chesapeake-bay-cleanup/> (touting the commitment of various Bay state governors to the collaborative approach).

105. *Principals’ Staff Committee: Scope and Purpose*, CHESAPEAKE BAY PROGRAM, http://www.chesapeakebay.net/groups/group/principals_staff_committee (last visited Dec. 16, 2012) (stating that the PSC “acts as the policy advisors to the Executive Council, accepting items for Council consideration and approval, and setting agendas for Council meetings”).

106. *Id.*

107. CHESAPEAKE BAY PROGRAM, REORGANIZATION PROPOSAL 5 (2008), available at http://archive.chesapeakebay.net/pubs/calendar/PSC_09-22-08_Handout_7_9784.pdf (stating that the Management Board replaced the Implementation Committee); *How We’re Organized*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/about/organized> (last visited Dec. 16, 2012).

108. See *Principals’ Staff Committee: Scope and Purpose*, *supra* note 105 (“Individual members of the PSC arrange and provide briefings to their principals, the Agreement signatories.”).

109. See Steinzor & Jones, *An Accountability Mechanism*, *supra* note 40, at 5 (describing interviewees stating that the Program is “captured by the states”).

110. See *supra* notes 22–42 and accompanying text (discussing problems resulting from conflicting interests of different states).

94. Chesapeake Bay Program, Chesapeake 2000, at 3, 6 (June 28, 2000) (unpublished agreement), available at http://www.chesapeakebay.net/content/publications/cbp_12081.pdf.

95. *Id.* at 12. The governors of New York and Delaware committed to Chesapeake 2000’s water quality goals through a memorandum of understanding signed in 2000. Memorandum of Understanding Among the State of Del. et al. 2 (2002), available at http://www.chesapeakebay.net/content/publications/cbp_12085.pdf. The governor of West Virginia added his signature in 2002. *Id.*

96. *Id.* at 1.

97. See *supra*, notes 1–10.

98. *Chesapeake Executive Council*, CHESAPEAKE BAY PROGRAM, http://www.chesapeakebay.net/groups/group/chesapeake_executive_council (last visited Dec. 16, 2012).

99. Lisa M. Ochsenhirt et al., *Restoration of the Chesapeake Bay*, 60 VA. LAW. 45, 45 (2011) (discussing a thirteen-year program).

100. *Id.* at 46 (showing the repercussions from a 1987 initiative that could not be fulfilled beginning in 2007).

101. See Steinzor & Jones, *An Accountability Mechanism*, *supra* note 40, at 5–9.

102. *Partnerships*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/about/how/partnerships> (last visited Dec. 16, 2012) (“The Bay Program partnership includes: 19 federal agencies; Nearly 40 state agencies and programs in Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia; approximately 1,800 local governments, represented through the Local Government Advisory Committee; More than 20 academic

strategies are defensive to the core, with each state delegation working to prevent the group from endorsing a joint action or activity that would cast it in a negative light or cost it too much money.¹¹¹

When we interviewed long-time Bay Program participants about improving the accountability of the CBP, they agreed that an independent mechanism was needed: “It is very disconcerting to hear that the Program or PSC will be deciding what should be evaluated,” one interviewee stated.¹¹² “We need complete independence on that. . . . This needs to be an outside group completely. It needs to be out of the hands of the operatives.”¹¹³ “We achieve independence,” another interviewee said, “by picking someone out of the Program. Somebody without an agenda, who is capable of understanding the issues and challenges, and evaluating them in an objective way.”¹¹⁴

At the staff—as opposed to the political appointee—level, the CBP is a beehive of activity that involves literally dozens of committees, subcommittees, working groups, taskforces, teams, and advisory groups devoted to endless discussions of who did what to whom yesterday, the day before, and ten years ago.¹¹⁵ Such an unwieldy bureaucracy not only obfuscates restoration efforts for the general public, but it also strains limited staff resources for the agencies and organizations that participate.¹¹⁶ We do not wish to imply that this work does not accomplish some meaningful results. Environmental conditions in the Bay are extraordinarily well-characterized.¹¹⁷ Research, field testing, and the publication of an endless stream of beautiful reports demonstrate strong understanding and analysis of the environmental problems—from declining submerged aquatic vegetation to decimated oyster populations—plaguing the Bay.¹¹⁸ But all of this study has not translated into anything near the level of action required to reverse the Bay’s decline.¹¹⁹ In our view, the paradox between intense analysis and meager results suggests a basic insight to all proponents of ecosystem management, adaptive management, and other “new” or “collaborative” forms of governance: describing the science is not enough. Assessing *institutional* accountability needs a differ-

ent kind of metric, or measurement, of progress. To succeed, oversight requires the CBP and its partners to go one crucial step further, to the point of identifying what actions are needed to improve those conditions and which entities will be held responsible for undertaking that work.¹²⁰ Taking this step, however, would force states to address nonpoint source pollution—something they have been loath to do because agricultural interests are adamantly opposed to regulation and are politically powerful. That crucial progression will not happen under the existing institutional structure.

II. The Bubble Bursts: Damning Reports, Bad Press, Reshuffling the Deck

The CBP’s bubble of collaboration—touted for years by opportunistic politicians, anxiety-ridden bureaucrats, and regulation-averse academics—burst in 2005 when GAO harshly criticized the CBP’s information collection and reporting methods.¹²¹ It found that various data had been so “commingled” that “the public cannot easily determine whether the health of the [B]ay is improving or not.”¹²² Worse, GAO concluded that the CBP deliberately perpetuated such confusion by downplaying negative trends and painting a “rosier picture of the bay’s health” than was warranted.¹²³ The GAO’s report so incensed Senator Barbara Mikulski (D-MD) that she engineered the withholding of five million dollars from the CBP until it implemented the GAO’s recommendations for improvement.¹²⁴ The amount was relatively small, but the message that business as usual could not continue was at last communicated.

In 2007, the CBP annual update, titled *A Report to the Citizens of the Bay Region, Chesapeake Bay Health & Restoration Assessment*, dramatized both the CBP’s long-standing hesitancy to speak plainly about the lack of progress being made by its state partners and the pressures it was under to be clearer.¹²⁵ The report contained close to forty pages of lavish graphics, photographs, and text.¹²⁶ It acknowledged that the Bay was in trouble, but did not explain which specific insti-

111. See *supra* notes 22–42 and accompanying text.

112. See Steinzor & Jones, *An Accountability Mechanism*, *supra* note 40, at 13.

113. *Id.*

114. *Id.*

115. Wiersema, *supra* note 81, at 1272 (“The Program is renowned for being complex in the sense that the relationship among committees and subcommittees is not always a straightforward hierarchy. Even those who have devoted large portions of their careers to the Bay Program’s work and have been involved with it from its inception do not shy away from recognizing that the Program is extremely complex in design and practice.”).

116. Steinzor & Jones, *An Accountability Mechanism*, *supra* note 40, at 6 (explaining how more than one interviewee from a headwater state “mentioned how difficult it was to dedicate the staff necessary to participate fully in the various committees and working groups”).

117. *The History of Chesapeake Bay Cleanup Efforts*, CHESAPEAKE BAY FOUND., <http://www.cbf.org/how-we-save-the-bay/chesapeake-clean-water-blueprint/history-of-bay-cleanup-efforts> (last visited Dec. 16, 2012) (“The Chesapeake Bay is arguably the most studied large body of water on earth. It is an unusually complex ecosystem, but there is a great deal of scientific consensus on the causes of its decline.”).

118. *Publications: Reports*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/publications/categories/category/report> (last visited Dec. 16, 2012).

119. Steinzor & Jones, *Reauthorizing the Chesapeake Bay Program*, *supra* note 2, at 1.

120. See *infra* note 193 (discussing metrics).

121. GAO 2005 REPORT, *supra* note 10, at 4–5. The accuracy of the Bay Program’s numbers had been questioned by Bay advocates and reporters prior to the GAO report. See, e.g., Peter Whoriskey, *Bay Pollution Progress Overstated; Government Program’s Computer Model Proved Too Optimistic*, WASH. POST, July 18, 2004, at A1 (comparing the Bay Program’s computer model with U.S. Geological Survey water monitoring data).

122. GAO 2005 REPORT, *supra* note 10, at *Highlights*.

123. *Id.*

124. Karl Blankenship, *Action Plan Will Coordinate; Review Bay Cleanup Goals*, CHESAPEAKE BAY J., Sept. 2008, available at http://www.bayjournal.com/article/action_plan_will_coordinate_review_bay_cleanup_goals. At a congressional hearing held on July 30, 2008, GAO testified that they did not think the Bay Program has met the objective of establishing an “independent and objective reporting process.” U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-08-1033T, CHESAPEAKE BAY PROGRAM: RECENT ACTIONS ARE POSITIVE STEPS TOWARD MORE EFFECTIVELY GUIDING THE RESTORATION EFFORT 9 (2008), available at <http://www.gpo.gov/fdsys/pkg/GAOREPORTS-GAO-08-1033T/pdf/GAOREPORTS-GAO-08-1033T.pdf>.

125. CHESAPEAKE BAY PROGRAM, CHESAPEAKE BAY 2007 HEALTH AND RESTORATION ASSESSMENT 6 (2007), available at http://www.chesapeakebay.net/documents/cbp_26038.pdf.

126. *Id.* at 1–33.

tutions are responsible for addressing the worst problems.¹²⁷ Instead, on page six, the authors tucked in the following throw-away line: “Program scientists project that little more than half of the pollution reduction efforts needed to achieve the nutrient goals have been undertaken since 1985.”¹²⁸ This remarkable admission suggested what many knew: the reason the Bay’s conditions continue to worsen was that the CBP partners had not gone nearly far enough in developing and implementing concrete regulatory and land use management programs that would prevent discharges of nutrients into the already polluted water.¹²⁹

Two 2008 reports by the Office of Inspector General for EPA (“IG”) subsequently bolstered GAO’s findings.¹³⁰ The IG advised EPA to tell the hard truth to Congress and the public that the Bay Program is “*significantly* short of its goals” and that partners need to make *major* changes if goals are to be met.¹³¹ Then, in late 2008, *The Washington Post* broke a front-page story quoting former Program officials saying they “tried to conceal for years that their effort was failing—even issuing reports overstating their progress—to preserve the flow of federal and state money to the project.”¹³² Jeff Lape, CBP’s director at the end of the George W. Bush Administration, removed the tagline “The Nation’s Premier Watershed Restoration Partnership” from the Program’s website, replacing it with “A Watershed Partnership.”¹³³ The poster child for dialogue and volunteerism had fallen off its pedestal, and deservedly so.

A. Reshuffling the Deck: The CBP Responds to Criticisms

As the criticisms and dispiriting facts piled up, CBP partners—and, specifically, the PSC—responded in two crucial ways. First, at an October 2007 PSC meeting, the Bay jurisdictions and EPA agreed that it would establish a multi-state

TMDL.¹³⁴ This decision initiated a remarkable and on-going effort that has the potential to create, for the first time in years, real and measurable water quality gains.¹³⁵ For the first time, restoration efforts would be measured using two-year milestones, forcing each of the Bay jurisdictions to state, and then achieve, short-term and specific goals.¹³⁶ Second, broad agreement was reached that the CBP needed to be reorganized in order to focus on “implementation”¹³⁷ and accountability, with some calling for an independent evaluator to improve the CBP’s credibility and ensure that on-the-ground progress is being made.¹³⁸

By the fall of 2008, the PSC had grudgingly agreed to reorganize the Bay Program and, among other changes, create an independent evaluator.¹³⁹ The authors had been working with PSC support staff to develop a framework for a truly independent and tough auditing entity,¹⁴⁰ and the idea was—and continues to be—strongly supported by the Citizen Advisory Committee (“CAC”),¹⁴¹ a group that provides “a non-governmental perspective on the Bay cleanup effort.”¹⁴² But John Griffin, the secretary of the Maryland Department of Natural Resources, who was serving a one-year term as PSC chair, appeared to balk at the idea of setting up a new office within the CBP structure. We suspect that resistance to the creation of a permanent independent evaluator office within the CBP was fueled by funding shortfalls, hypocritical concern about the creation of more “bureaucracy,” and conflicting anxieties about whether, on one hand, the independent evaluator would be too tough on the states or, on the other, would not be tough enough. Instead, the PSC and, ultimately, the CBP Executive Council, was persuaded

127. *Id.* at 20–31.

128. *Id.* at 6.

129. See, e.g., OFFICE OF INSPECTOR GEN., U.S. ENVTL. PROT. AGENCY, NO. 08-P-0049, DESPITE PROGRESS, EPA NEEDS TO IMPROVE OVERSIGHT OF WASTEWATER UPGRADES IN THE CHESAPEAKE BAY WATERSHED, at Introduction, 13–14 (2008) [hereinafter EPA NEEDS TO IMPROVE OVERSIGHT] (emphasis added), available at <http://www.epa.gov/oig/reports/2008/20080108-08-P-0049.pdf> (explaining the challenges of ensuring that wastewater treatment plants are upgraded as required by EPA).

130. EPA NEEDS TO IMPROVE OVERSIGHT, *supra* note 129; OFFICE OF INSPECTOR GEN., U.S. ENVTL. PROT. AGENCY, NO. 08-P-0199, EPA NEEDS TO BETTER REPORT CHESAPEAKE BAY CHALLENGES 8 (2008), available at <http://www.epa.gov/oig/reports/2008/20080714-08-P-0199.pdf>.

131. EPA NEEDS TO IMPROVE OVERSIGHT, *supra* note 129, at Introduction, 13–14 (emphasis added).

132. David Farenthold, *Broken Promises on the Bay*, WASH. POST (Dec. 27, 2008), <http://www.washingtonpost.com/wp-dyn/content/article/2008/12/26/AR2008122601712.html>. The article quotes William Matuszeski, who directed the Program for ten years, from 1991 to 2001, who “described how the program repeatedly released data that exaggerated its success, hoping to influence Congress.” *Id.* The article also reports that “[h]is successor, Rebecca W. Hanmer, said she was instructed by regional leaders in 2002 not to acknowledge that the effort would fall short of its 2010 goals.” *Id.*

133. ERNST, *supra* note 75, at 18. The tagline is now “Science, Restoration, and Partnership.” See *Chesapeake Bay Program*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/> (last visited Dec. 16, 2012).

134. *Chesapeake Bay TMDL: Creating the TMDL*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/creatingthetmdl.html> (last visited Dec. 16, 2012).

135. See Oliver Houck, *The Clean Water Act Returns (Again): Part I: TMDLs and the Chesapeake Bay*, 41 ELR 10208, 10216–18 (Mar. 2011) (“Fixed requirements are often the bureaucrat’s best friend, their shield from unhappy constituencies.”).

136. See U.S. ENVTL. PROT. AGENCY, CHESAPEAKE BAY TMDL, *supra* note 28, at ES-8; see also NAS/NRC COMMITTEE REPORT, *supra* note 20, at 6 (explaining the importance of such milestones).

137. David A. Farenthold, *Bay Program Ready to Study Less, Work More*, WASH. POST (Sept. 26, 2006), <http://www.washingtonpost.com/wp-dyn/content/article/2006/09/25/AR2006092501162.html>.

138. Chesapeake Bay Program, Chesapeake Bay Program Governance: Managing the Partnership for a Restored and Protected Watershed and Bay 43–44 (Feb. 27, 2009) (unpublished governance document) [hereinafter CBP Governance], available at http://archive.chesapeakebay.net/pubs/calendar_03-13-09_Handout_4_10155.pdf.

139. Chesapeake Bay Program, Background: Chesapeake Bay Independent Evaluation (Mar. 25, 2010) [hereinafter Backgrounder], available at http://www.chesapeakebay.net/content/publications/cbp_51032.pdf; CBP Governance, *supra* note 138, at 43. The announcement that reorganization would occur first appeared in fall 2006. See Farenthold, *Bay Program Ready to Study More*, *supra* note 137.

140. Indeed, Frank Dawson, representing the Maryland Department of Natural Resources, presented to the PSC in September 2008 and recommended that the “Executive Council create an Independent Evaluator within the program.” Chesapeake Bay Program, *supra* note 19, at 10.

141. See Letter from Nikki L. Tinsley, Chair, Citizens Advisory Comm. to the Chesapeake Exec. Council, to Principals’ Staff Comm. (Jan. 3, 2012), available at <http://chesapeakecac.org/wp-content/uploads/2012/02/CAC-letter-to-PSC-on-NAS-recs-Jan-2012.pdf>.

142. *Citizens Advisory Committee: Scope and Purpose*, CHESAPEAKE BAY PROGRAM, http://www.chesapeakebay.net/groups/group/citizens_advisory_committee (last visited Dec. 16, 2012).

to support a one-time evaluation conducted by the NRC, an option that we argued would be expensive, take three years to complete (it did), and was likely to focus not on improving government accountability for failed restoration but rather on the soundness of the scientific and technical assumptions that underlie restoration planning.¹⁴³ In November 2008, instead of creating an independent office, the Executive Council announced that the NRC would conduct an “independent evaluation” of the CBP.¹⁴⁴ That report was released in May 2011.¹⁴⁵

The CBP’s decision to ask the NRC for a one-time report, and the manner in which the NRC chose to pursue this work, were disappointing detours from the pursuit of explicit, on-going *institutional* accountability for the CBP partners.¹⁴⁶ The Executive Council directed the NRC to “evaluate and provide advice on the CBP nutrient reduction program and strategy.”¹⁴⁷ Some meaningful aspects of accountability are in this request—e.g., the evaluation of how well states are “tracking” best management practice implementation—but the committee was not asked directly to address how independent auditors might evaluate state programs *on-the-ground*.¹⁴⁸

The NRC panel selected to lead the effort was dominated by scientific experts who were chosen for their expertise in such highly technical fields as “the assessment of nonpoint source pollution on surface water quality,” “the economics of natural resources conservation,” “ensur[ing] that the water quality goals and water quantity needs of Florida’s agricultural industry are achieved,” “the development and application of mathematical and statistical models to . . . sediment quality problems,” “anthropogenic alterations of biogeochemical cycles,” “the cycling of phosphorus in soil-plant-water systems,” and “modeling as a tool to predict movement of pesticides.”¹⁴⁹ These limitations were especially unfortunate given the CBP’s long-standing and inordinate preoccupation with the analysis of environmental conditions from a highly technical perspective.¹⁵⁰

The unsurprising result was that the NRC committee made findings that in many instances sidestepped the problem of holding the partners accountable for doing more than studying Bay environmental conditions and planning on paper to take steps that might reduce pollution.¹⁵¹ For example, the NRC committee issued the following open-ended invitation to emphasize the ongoing study of environmental

conditions and the scientific education of the citizenry, as opposed to the efficacy of government programs:

[s]uccess in meeting CBP goals will require careful attention to the consequences of future population levels, development patterns, agricultural production systems, and changing climate dynamics in the Bay Watershed. . . . Helping the public understand lag times and uncertainties associated with water quality improvements and developing program strategies to account for them are vital to sustaining public support for the program, especially if near-term Bay response does not meet expectations.¹⁵²

Even so, some of the report’s findings bolster our contention that an independent evaluator should be established as soon as possible, lest the CBP and EPA repeat their error of failing to generate clear, relevant, and objective information in real time about what states are actually doing to reduce the nutrient loading that is jeopardizing the Bay.¹⁵³ For example, the report emphasized the problems of verifying the efficacy of so-called “best management practices” (“BMP”) that are the vehicle for unregulated, nonpoint sources to reduce the nutrient pollution they discharge into the watershed.¹⁵⁴ BMPs include such measures as establishing riparian buffers for “trapping, filtering, and converting sediments, nutrients, and other chemicals.”¹⁵⁵ The NRC found that federal and state efforts to quantify the number of functioning BMPs across the Bay jurisdictions “cannot on the whole be viewed as accurate” because of inconsistencies, the lack of robust field verification, and double counting.¹⁵⁶ This problem is intensified because current tracking systems do not include practices that are not funded by government “cost-share” dollars.¹⁵⁷ As a result, the committee “was unable to determine the reliability and accuracy of the BMP data reported by the Bay jurisdictions.”¹⁵⁸ It was also not able to “to quantify the magnitude or the likely direction of the error introduced by BMP reporting issues.”¹⁵⁹

Getting a reasonable estimate of existing BMPs is one thing, determining the accuracy of the data reported as part of the BMPs is quite another—and the NRC said that it could not determine whether the BMP data reported by the states was reliable or accurate.¹⁶⁰ The report concludes that “[i]ndependent (third-party) auditing of the tracking and

143. See generally NAS/NRC COMMITTEE REPORT, *supra* note 20, at 57–58 (summarizing the challenges that confront Bay restoration efforts and making recommendations to strengthen those efforts).

144. See CBP Governance, *supra* note 138 at 43–44.

145. Kim Walker, *Scientists Question Bay Cleanup Tracking*, B’MORE GREEN: AN ENVIRONMENTAL BLOG FOR EVERYDAY LIVING (May 4, 2011, 11:00 AM), http://weblogs.baltimoresun.com/features/green/2011/05/scientists_question_bay_cleanup_1.html.

146. NAS/NRC COMMITTEE REPORT, *supra* note 20, at vii–ix.

147. *Id.* at viii.

148. See *id.* at 3.

149. These descriptions are drawn from the biographies of NRC panel members listed in Appendix F of the NAS/NRC Committee Report. See *id.* at 243–45.

150. See *id.* at iii; see also *What We Do*, THE NAT’L ACADS., <http://nationalacademies.org/about/whatwedo/index.html> (last visited Dec. 16, 2012).

151. See NAS/NRC COMMITTEE REPORT, *supra* note 20, at 163–66.

152. See *id.* at 163–64.

153. See generally Principals’ Staff Comm., Chesapeake Bay Partner’s Response to the NRC’s Report 3 (Feb. 16, 2012) (unpublished presentation), available at [http://www.chesapeakebay.net/channel_files/17880/\(attachment_iii.a\)_recommendations_nas_report_2-16-2012_2.pptx](http://www.chesapeakebay.net/channel_files/17880/(attachment_iii.a)_recommendations_nas_report_2-16-2012_2.pptx) (thanking the NRC for its report and expressing agreement with some of its recommendations).

154. NAS/NRC COMMITTEE REPORT, *supra* note 20, at 39.

155. See CHESAPEAKE BAY PROGRAM, NO. CBP/TRS-282-06, BEST MANAGEMENT PRACTICES FOR SEDIMENT CONTROL AND WATER CLARITY ENHANCEMENT 8–10 (2006), available at http://www.chesapeakebay.net/content/publications/cbp_13369.pdf.

156. NAS/NRC COMMITTEE REPORT, *supra* note 20, at 4.

157. *Id.* Farmers may choose to decrease their use of expensive fertilizers regardless of whether governments offer them subsidies to do so.

158. *Id.* at 83.

159. *Id.* at 4.

160. *Id.* at 4.

accounting at state and local levels would be necessary to ensure the reliability and accuracy of the data reported.¹⁶¹

A second, scathing GAO report issued in 2011 confirmed that the CBP was continuing business as usual to an unfortunate degree, adding urgency to continued calls for an independent evaluator by the CAC.¹⁶² The report said that federal and state agencies were often working at cross purposes to each other because not all private sector stakeholders are willing to acknowledge the importance, much less the inevitability, of the federal TMDL and are instead doing everything they can to undermine it.¹⁶³ Just as disturbing, although “[t]he watershed states are critical partners in the effort to restore the bay, . . . state officials told GAO that they are not working toward the [federal] goals.”¹⁶⁴ Instead, these state officials, who can only be described as recalcitrant, claim they are confused as to which “strategy” or agreement to follow, as “most state bay restoration work is conducted according to state commitments made in a previous bay restoration agreement, the Chesapeake 2000 Agreement.”¹⁶⁵

B. An Independent Evaluator: The Idea Persists

Fortunately, the idea for an independent evaluator persists in prominent documents affecting Bay restoration. President Obama’s Executive Order 13,508 called for an “independent evaluator [to] periodically report[] to the [Federal Leadership Committee] on progress toward meeting the goals of this order.”¹⁶⁶ A box labeled “Independent Evaluator” is included on the CBP’s organizational chart,¹⁶⁷ and accompanying literature touts it as being “included as an organizational function in the new Bay Program structure.”¹⁶⁸

Unfortunately, however, the opportunities for ongoing sabotage of the idea remain plentiful. Of course, as it does with every large and small issue, the PSC appointed a subcommittee, named the “Independent Evaluator Action Team,” to assess its options with respect to the structure and substance of this function.¹⁶⁹ In November 2011, a revealing, but author-less, document entitled “Key Challenges Identified by the Chesapeake Bay Program Partners from the NAS/NRC Report” was distributed to the group and made available to the public.¹⁷⁰ The document indicates that three camps have emerged, each arguing for disparate outcomes.¹⁷¹ The first would establish an “Office of the Inde-

pendent Evaluator” within the CBP that would retain “the necessary independence to fairly and accurately evaluate the efficiency and effectiveness of the Bay Partnership’s programs and efforts,” and report to a “high level EPA official.”¹⁷² The second faction, comprised of the CAC, would establish a strong, “independent function” that would focus on whether the CBP and its partners are “doing what we report;” it specifically opposes the status quo, i.e., EPA acceptance of “BMP implementation data without verification.”¹⁷³ The third and arguably most powerful camp is led by staff from Pennsylvania, Virginia, and West Virginia; it would create “non-independent internal program evaluation,” using teams made up of PSC members to review performance.¹⁷⁴ Pennsylvania and Virginia assert that an independent evaluator or evaluation of any kind is no longer necessary at all because the PSC’s subsequent endorsement of an “adaptive management framework” takes care of the problem.¹⁷⁵

In February 2012, the Bay Program partners officially responded to the NRC’s report, presenting their conclusions to the PSC.¹⁷⁶ The PSC made several decisions to address the NRC’s findings—from “build[ing] a partnership-wide BMP verification system” to tasking its committees to carry out the NRC’s adaptive management recommendations—but deferred action on the creation of an independent evaluator.¹⁷⁷ The PSC met again in mid-May 2012 without making a decision on this issue.¹⁷⁸

Although population growth and climate change in the region have certainly made Bay restoration efforts more difficult, the critical problem with Bay restoration efforts lies with the underlying premise of the CBP itself: that a voluntary, cooperative approach among federal and state partners will work without genuine accountability and strong leadership. The Bay Program’s collaborative, cooperative institutional design—the very attribute for which it has long been celebrated as a model¹⁷⁹—is the primary cause of the Bay Program’s lack of progress.¹⁸⁰ We conclude that as long as the Bay Program lacks real authority to require its federal and state partners to take action, no entity is directly responsible for Bay cleanup—and no entity takes the blame for the man-

161. *Id.*

162. See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-11-802, CHESAPEAKE BAY: RESTORATION EFFORT NEEDS COMMON FEDERAL AND STATE GOALS AND ASSESSMENT APPROACH at *Highlights* (2011) [hereinafter GAO, CHESAPEAKE BAY: RESTORATION EFFORT].

163. *Id.*

164. *Id.*

165. *Id.*

166. See Executive Order 13,508, 74 Fed. Reg. 23099, 23101 (May 15, 2009).

167. See *How We’re Organized*, *supra* note 107.

168. See Backgrounder, *supra* note 139.

169. The Executive Council created an “independent evaluator action team” tasked with helping define the scope of the charge and inform the process. See *Independent Evaluator Action Team: Scope and Purpose*, CHESAPEAKE BAY PROGRAM, http://www.chesapeakebay.net/groups/group/independent_evaluator_action_team (last visited Dec. 16, 2012).

170. Chesapeake Bay Program, *supra* note 19.

171. *Id.* at 12–14.

172. *Id.* at 12.

173. *Id.* at 14.

174. *Id.* at 13.

175. *Id.* at 14.

176. Principals’ Staff Comm., Chesapeake Bay Partners’ Response, *supra* note 153.

177. Minutes from Chesapeake Bay Program Principals’ Staff Comm. Meeting, *supra* note 22.

178. Chesapeake Bay Program, Chesapeake Bay Program Update: Management Board Meeting 6 (May 9, 2012) (unpublished meeting agenda), available at [http://www.chesapeakebay.net/channel_files/18082/\(attachment_i_b\)_program_update.pdf](http://www.chesapeakebay.net/channel_files/18082/(attachment_i_b)_program_update.pdf).

179. See, e.g., ROBERT W. ADLER ET AL., LESSONS FROM LARGE WATERSHED PROGRAMS 83 (2000) (exploring the challenges that confront large-scale, multi-jurisdictional programs to restore water quality in sprawling watersheds); Jon Cannon, *Checking in on the Chesapeake: Some Questions of Design*, 40 U. RICH. L. REV. 1131, 1131 (2006) [hereinafter *Checking in on the Chesapeake*] (considering potential changes to the Bay program’s institutional design); Mark Imperial et al., *An Evolutionary Perspective on the Development and Assessment of the National Estuary Program*, 20 COASTAL MGMT. 311, 324 (1992) (concluding the CBP’s success makes it a model for other watershed collaborations).

180. See *Checking in on the Chesapeake*, *supra* note 179 (offering a different perspective). Jon Cannon concludes that, despite its failures, restructuring the Bay Program is not in order. *Id.* at 1131.

ifest failure. Accordingly, the Bay Program must shift away from the current supportive environment that avoids targeting responsibility—without sacrificing the cooperation that is essential to its success and survival—and overhaul how the Program holds itself and its state partners accountable.

III. The Independent Evaluator: Mission, Characteristics, and Resistance

A. Mission

With a restoration price tag in the billions of dollars, a bad economy that has yet to emerge from an unprecedented global tailspin, and strong public aversion to higher taxes and the government programs they support, the idea of creating yet another group of bureaucrats to monitor progress in restoring the Chesapeake Bay may seem like a fool's errand.¹⁸¹ Our critique of the alphabet soup of committees, subcommittees, working groups, and taskforces should have convinced us, the reader may well be thinking, that checking on the checkers is unlikely to overcome the powerful forces invested in business as usual—in this case, the full employment for hundreds of career bureaucrats who are deeply entrenched in the status quo of taking one step forward and two steps back.

We persist for one simple reason: the only administrative methodology that remains rare in the Chesapeake Bay watershed is a prominent, well-respected, objective entity willing to expose grand plans that are not working.¹⁸² In the exceptional cases when such voices have emerged—most notably, when GAO issued the withering 2005 report that created the conditions that compelled EPA to promulgate the Bay TMDL—they have proved remarkably effective.¹⁸³ The existing program's stalwart embrace of complexity, to the point that unraveling what is really happening on the ground is virtually impossible, is the best reason why the institutional equivalent of the boy who told the emperor he had no clothes is essential.¹⁸⁴ Nationally respected auditors such as GAO and the NRC can help periodically with the evaluation of the intrinsically inconsistent paper promises made by federal and state officials or the scientific and technical challenges that stymy them.¹⁸⁵ Only an organization embedded in the daily operations of restoration, however, will be able to dig deep enough to consistently establish accountability. The independent evaluator's mission must be to promote accountability by continually diagnosing the specific problems that prevent the CBP and its partners from achieving Bay restoration goals and then allocating responsibility for why these problems are not being addressed. Put

more directly, the independent evaluator's mission is institutional accountability, namely, assessing whether promised or required federal and state actions are in fact happening and, if not, why not.

B. Characteristics

The independent evaluator should have three essential, closely related characteristics: (1) independence and neutrality; (2) work guided by a short list of evolving metrics; and (3) a problem-solving orientation. The actual and, as important, perceived authority to set its own agenda without interference by EPA or the Bay states is the irreducible quid pro quo for this approach to succeed. The independent evaluator should be a free-standing entity, run by a relatively senior person with impeccable reputation, who reports directly to the Chesapeake Bay Program Executive Council.¹⁸⁶ At all stages of its development, the independent evaluator should remain independent of existing chains of command, especially the PSC, the group of senior federal and state officials who advise the CBP Executive Council and who are heavily invested in the status quo.¹⁸⁷

To structure its work, the independent evaluator should develop a discrete set of no more than two dozen metrics that measure the most important aspects of federal and state performance in implementing the Bay TMDL.¹⁸⁸ For example:

- For each sector, is the state's NPDES permitting program effective at issuing up-to-date permits for all facilities that require them? Specifically, what percentage of NPDES permits are up-to-date?
- When will the state have all permits updated and rewritten to include the Bay-wide TMDL and individual tributary segment TMDLs?
- What are the total number of violations, the number of civil and administrative penalty actions, and the amount of civil and administrative penalties collected in the relevant watersheds during the last year?¹⁸⁹

181. Jeff Hager, *Effort to Save Chesapeake Bay Carries Costs*, ABC2 News (July 10, 2012), http://www.abc2news.com/dpp/news/region/baltimore_county/effort-to-save-chesapeake-bay-carries-costs (presenting a farmer's view of increased regulations).

182. See, e.g., GAO, *RECENT ACTIONS*, *supra* note 4, at 9 (discussing the 2005 GAO report which indicated numerous problems with the management of the restoration progress).

183. See *id.*

184. See *supra* pp. 58–60.

185. See GAO, *CHESAPEAKE BAY: RESTORATION EFFORT*, *supra* note 162, at *Highlights*; NAS/NRC COMMITTEE REPORT, *supra* note 20, at 49.

186. *Chesapeake Executive Council: Scope and Purpose*, CHESAPEAKE BAY PROGRAM, http://www.chesapeakebay.net/groups/group/chesapeake_executive_council (last visited Dec. 16, 2012) (“The Chesapeake Executive Council was established by the Chesapeake Bay Agreement of 1983. Under the 1987 Chesapeake Bay Agreement, membership changed from cabinet secretaries to the governors of Maryland, Pennsylvania and Virginia; the administrator of the U.S. Environmental Protection Agency; the mayor of the District of Columbia; and the chair of the Chesapeake Bay Commission, a legislative body serving Maryland, Pennsylvania, and Virginia.”).

187. *Principals' Staff Committee: Scope and Purpose*, *supra* note 105 (“The Principals' Staff Committee (PSC) acts as the policy advisors to the Executive Council, accepting items for Council consideration and approval, and setting agendas for Council meetings. Individual members of the PSC arrange and provide briefings to their principals, the Agreement signatories. The PSC also provides policy and program direction to the Implementation Committee.”).

188. See generally RENA STEINZOR & SIDNEY SHAPIRO, *THE PEOPLE'S AGENTS AND THE BATTLE TO PROTECT THE AMERICAN PUBLIC: SPECIAL INTERESTS, GOVERNMENT, AND THREATS TO HEALTH, SAFETY, AND THE ENVIRONMENT* 173–91 (2010) (discussing why indicators, or metrics, are important to government accountability).

189. See WILLIAM L. ANDREEN ET AL., *CTR. FOR PROGRESSIVE REFORM, ENSURING ACCOUNTABILITY IN CHESAPEAKE BAY RESTORATION: METRICS FOR THE PHASE I WATERSHED IMPLEMENTATION PLANS 3–9* (2010), *available at* <http://www.>

Because EPA has threatened serious consequences for states that do not meet their interim “milestones,” the states routinely claim in their Watershed Implementation Plans (“WIP”) that they are on schedule to meet TMDL targets.¹⁹⁰ Those plans do not disclose, however, how fast the states will rewrite permits to reduce point source discharges down to acceptable levels, making it very difficult to judge those claims.¹⁹¹ Metrics such as the above would reveal whether or not the states are on schedule to meet their TMDL targets.

Last but not least, the independent evaluator’s reports on federal and state government compliance with the TMDL should include potential solutions to address shortfalls in the states’ performance. If funding is inadequate to achieve the relevant goals, the reports should say how much is needed and how it might be raised. If the poor performance of state agencies or regulated industries’ recalcitrance is a problem, the reports should acknowledge those unpleasant realities.

I. Neutrality and Independence

As we have noted, state government officials who participate in the CBP first must ensure that their own state’s interests are protected. The results are strategies that are defensive rather than proactive, ultimately driven by the concern that the CBP might endorse actions that would cast the state in a negative light or cost too much.¹⁹² Not surprisingly, the chair of the Chesapeake Bay Commission, who sits on the CBP Executive Council, rotates,¹⁹³ and the CBP Executive Council elects its Chair from a different state or agency every few years, lest any particular state be able to use the position to impose its own policy initiatives.¹⁹⁴ Yet for all these precautions, the Council is primarily a ceremonial body.¹⁹⁵ The real work of opposing disadvantageous initiatives and

poking holes in rival states’ claims of glory is done within the PSC.¹⁹⁶

In approaching this difficult playing field with such unabashed cynicism, we hasten to acknowledge that the CBP’s efforts have advanced the cause of Bay restoration, although not nearly as quickly or effectively as the Bay partners themselves promised.¹⁹⁷ As we said at the outset, the Chesapeake Bay’s environmental conditions are exceptionally well understood.¹⁹⁸ It may be that Federal money for such research on that subject was consumed rapidly by the CBP because it was a far more acceptable way to channel the work of its committees and subcommittees than the formulation of more stringent pollution controls. Now that EPA is making its best efforts to force the PSC off this safe island of relatively benign investigative activity and into the arena of making hard and expensive choices, the time is ripe for the introduction of an auditor capable of making credible pronouncements that progress has—or, even more important, has not—been made.¹⁹⁹

The individual who heads the office of the independent evaluator, as well as the professional staff he or she leads, must not only be capable of behaving with dispassion, but also be perceived as dispassionate in judging the performance of the Bay states and EPA. He or she must not owe—nor be perceived as owing—any loyalty to the private sector constituencies that have infiltrated the CBP’s extensive bureaucratic infrastructure—from sewage treatment plant operators, to farmers, to environmental groups.²⁰⁰ Finding people with these characteristics is far easier said than done, and could prove almost impossible if expertise is considered the most important criterion in recruitment.

In the context of the Chesapeake Bay and the disappointing history of efforts to restore it,²⁰¹ appointing an independent evaluator with Bay-specific expertise could undermine actual and perceived neutrality. Virtually anyone who can claim an extensive scientific, technical, legal, or administrative background in the work of the CBP may be perceived by other participants as having an axe to grind. Even reputable scholars at local academic institutions are not immune from these suspicions, in no small measure because they depend on the CBP’s largesse for grant funding, and therefore have a vested stake in sing-

progressivereform.org/articles/CPR_Chesapeake_Metrics.pdf (providing more examples of possible metrics).

190. *E.g.*, MD. DEPT. OF THE ENV’T. ET AL., MARYLAND’S PHASE II WATERSHED IMPLEMENTATION PLAN FOR THE CHESAPEAKE BAY TMDL 11 (2012), available at http://www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Documents/FINAL_PhaseII_Report_Docs/Final_Documents_PhaseII/Final_Phase_II_WIP_MAIN_REPORT_102612.pdf (stating that it “is projected” that the state will meet EPA’s expectations for 2017); see *Chesapeake Bay TMDL: How Does it Work? Ensuring Results*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/EnsuringResults.html> (last visited Dec. 16, 2012) (providing links to each of the First Phase WIPs submitted by the states to EPA in December 2010).
191. *E.g.*, MD. DEPT. OF THE ENV’T, *supra* note 190, at 10, 14–15, 76–77, 81 (stating plans for reductions from point sources for 2017 without stating how fast they will rewrite permits for point sources to achieve reductions).
192. *See id.*
193. *Chesapeake Executive Council: Scope and Purpose*, *supra* note 186; *What Is the Chesapeake Bay Commission?*, CHESAPEAKE BAY PROGRAM (Jan. 28, 2011), http://www.chesapeakebay.net/blog/post/what_is_the_chesapeake_bay_commission.
194. Press Release, Chesapeake Bay Program, Chesapeake Executive Council Elects New Chair, Announces Local Government Award Recipients and Discusses Progress Toward Healthy Waters (July 9, 2012), available at http://www.chesapeakebay.net/presscenter/release/chesapeake_executive_council_elects_new_chair_announces_local_government_aw; Press Release, Chesapeake Bay Program, EPA Administrator Lisa P. Jackson Becomes Chair of Chesapeake Executive Council (Jan. 5, 2010), available at http://www.chesapeakebay.net/presscenter/release/epa_administrator_lisa_p._jackson_becomes_chair_of_chesapeake_executive_cou.
195. *See infra* notes 55–65 and accompanying text.

196. *See infra* notes 55–65 and accompanying text.

197. U.S. GEOLOGICAL SURVEY, U.S. DEPT OF THE INTERIOR, FS-125-01, THE U.S. GEOLOGICAL SURVEY CHESAPEAKE BAY SCIENCE PROGRAM 2 (2001), available at <http://pubs.usgs.gov/fs/fs125-01/fs125-01.pdf>.

198. *See, e.g.*, CHESAPEAKE BAY PROGRAM, 2004 CHESAPEAKE BAY OYSTER MANAGEMENT PLAN (2005) (recognizing ecological impacts resulting in reduced historic oyster populations and the need to restore the oyster population), available at http://www.chesapeakebay.net/content/publications/cbp_12889.pdf; see also J. COURT STEVENSON, CATHERINE B. PIPER & NEDRA CONFER, U.S. FISH & WILDLIFE SERV., DECLINE OF SUBMERGED PLANTS IN CHESAPEAKE BAY (1979), available at <http://www.fws.gov/chesapeakebay/savpage.htm> (highlighting the decline in Bay-wide aquatic grass beds).

199. *See* Letter from Shawn M. Garvin, Reg’l Adm’r, U.S. Env’tl. Prot. Agency, to Principals’ Staff Comm. Members (Jun. 11, 2010), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/TMDLScheduleLetter.pdf.

200. GAO, RECENT ACTIONS, *supra* note 4, at 13 (highlighting the CBP’s lack of independent and creditable mechanisms).

201. *Id.*

ing its praises.²⁰² Precisely because such an unusually large, diverse, and entrenched professional class of experts is in existence and has ossified into familiar patterns of deflecting problems and justifying inactivity, choosing an independent evaluator principal or staff from that cadre could easily undermine the office from the start.

Instead, the priority should be to hire people with *investigative* expertise. Predicting the water quality impact of applying chicken manure to frozen ground may be important to Bay restoration, as is analyzing the efficacy of certain cover crops in trapping nutrients before they wash into tributaries,²⁰³ but such experts are already active in the CBP.²⁰⁴ The value added by an independent evaluator is the ability to check whether winter application is in fact happening or whether cover crops have actually gone into the ground.²⁰⁵

The ideal candidate for independent evaluator would be a senior law enforcement official with experience under fire, or rather, who has policed a contentious and complex industry or geographical area. We suggest this profile not because we are recommending that the independent evaluator be granted enforcement powers by Congress. Rather, we think that the prosecution of civil and criminal violators should continue to reside with federal and state regulators. Nevertheless, investigative experience would equip the independent evaluator to navigate the complicated operations of the CBP, searching for indicators of whether restoration is going well or poorly.

The independent evaluator should have sufficient resources to hire a staff of similarly qualified investigators, including experts in crucial support specialties such as data analysis and computing. Because much of the office's work will involve field inspections throughout the watershed, the staff should be skilled in conducting witness interviews and recovering documents.

Because the independent evaluator will be a new entity operating without federal or state statutory authority, the office could encounter serious problems if owners and operators of facilities that contribute pollution to the Bay resist its investigative efforts. One solution to this problem would be for EPA and Bay state governors to condition the receipt of federal and state funding on cooperation with those investigations. A second approach would be for the independent evaluator to request assistance in cases involving recalcitrant targets from the relevant federal and state regulatory agencies. Should Congress recover from its existing state of gridlock and prepare to consider overdue legislation to reauthorize the CBP, the independent evaluator should be given all of the powers to inves-

tigate that it needs, including the authority to issue access orders and subpoenas.²⁰⁶

The office should report directly to the CBP Executive Council, which should retain exclusive authority to hire or fire its director, as opposed to delegating the function to the PSC. The one drawback of the Executive Council is that it does not include all the Bay states, omitting new members New York, Delaware, and West Virginia.²⁰⁷ It is by far the best choice, however, for political and practical reasons. Conferring this supervisory authority on EPA would inspire needless and draining opposition by recalcitrant states, while handing it to the PSC would ensure that the independent evaluator's status is reduced to the level of that body's other committees, taskforces, and working groups. A neutral broker is needed.

2. Metrics

At the threshold, the independent evaluator will only succeed by establishing criteria—or, more accurately, “metrics”—for judging federal and state advancement toward the overall goal of restoring the Bay. CBP has made enormous progress in defining and measuring progress in the context of ambient environmental conditions in the Bay and has established numerical goals for reducing various types of pollution within a set period of time. But creating accountability needs a different kind of metric, or measurement, of progress. To succeed, any oversight must go one crucial step beyond defining environmental conditions to the point of identifying what actions are needed to improve those conditions and which entities will be held responsible for undertaking that work.

At the same time, because sorting through the volume of information generated and disseminated on a daily basis is, for most of us, a never-ending task, the metrics must be pointed and concise if they are going to effectively resonate with policymakers and the public. Professor Wendy Wagner has coined the phrase “filter failure” to describe the problem of information overload that is pervasive in regulatory affairs.²⁰⁸ She explains that the cramming of rulemaking records by private sector contractors leads in turn to “information capture.”²⁰⁹ This phenomenon dramatically strengthens the influence of special interest groups who can afford to generate endless, redundant, and marginally relevant reams of data—leaving civil servants, public interest groups, and the public itself in the proverbial dust when decisions must

202. *Grants & RFPs*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/rfps> (last visited Dec. 16, 2012) (listing grant opportunities from the CBP).

203. See Chesapeake Bay Program, Chesapeake Bay Program Strategic Implementation Plan: Restoring Healthy Waters 1–5 (July 24, 2007) (unpublished draft report), available at http://archive.chesapeakebay.net/pubs/calendar/TSC_09-12-07_Handout_9_7940.pdf.

204. *Id.*

205. See *infra* pp. 59–60 (discussing the importance of on-the-ground investigation and fact checking).

206. See Chesapeake Bay Found., *Chesapeake Clean Water Act Blocked in U.S. Senate*, BAY DAILY (Dec. 21, 2010, 5:10 PM), http://cbf.typepad.com/bay_daily/2010/12/senate-majority-leader-harry-reid-has-abandoned-plans-to-bring-to-the-floor-an-omnibus-bill-designed-to-protect-wilderness-ar.html (describing the challenges such legislation would face).

207. See *Chesapeake Executive Council: Scope and Purpose*, *supra* note 186 (listing only the governors of Maryland, Pennsylvania, Virginia and the District of Columbia, the Administrator of EPA, and the chair of Chesapeake Bay Commission as Executive Council members).

208. Wendy E. Wagner, *Administrative Law, Filter Failure, and Information Capture*, 59 DUKE L.J. 1321, 1328 (2010).

209. “In the regulatory context, information capture refers to the excessive use of information and related information costs as a means of gaining control over regulatory decisionmaking in informal rulemakings.” *Id.* at 1325.

be made.²¹⁰ Wagner says that the “root cause” of information capture “is not administrative law’s commitment to open government and transparency, but rather its failure to require participants to self-process the information they load into the system.”²¹¹

Filter failure and information capture run rampant in the CBP. The major culprits are not private sector special interest groups hoping to derail or delay rulemaking, but rather federal and state government employees who write voluminous documents describing every initiative they design to make progress on Bay restoration.²¹² The CBP is quite proud of its ChesapeakeStat website, launched in 2010 “to increase government accountability and improve coordination of restoration actions by providing information on partner activities, funding, and progress towards goals.”²¹³ The site contains a wealth of information regarding conditions in the Bay—e.g., the percentage of land covered by impervious surfaces such as parking lots that produce polluted run-off—and even allows readers to make their own maps by overlaying data about those conditions on top of one another.²¹⁴ It does not, however present any form of auditing information about an individual state’s actual performance in permitting, inspecting, or enforcing the law with respect to individual sources, whether regulated or not.²¹⁵ To mangle a popular adage, nitrogen does not pollute the Bay; parking lots in Maryland, concentrated animal feeding operations in Virginia, and sewage treatment plants in Pennsylvania do.²¹⁶

As for EPA’s efforts to track state progress in implementing the TMDL, the Agency appears allergic to creating templates, inventing standardized forms, or in any other way asking the states to provide information that can be compared easily by anyone other than the experts themselves.²¹⁷ This omission, which also wastes EPA’s resources, is especially egregious with respect to important documents, such as WIPs, which supposedly explain, in a way cognizable by

citizens, what the states will do to meet new TMDL pollution limits.²¹⁸ In a report card focusing on the first round of WIPs, the Center for Progressive Reform recommended changes in the required disclosures for WIPs so that the states’ progress in meeting TMDLs could be verified.²¹⁹ Those recommendations have yet to bear fruit.

These deeply engrained and exceptionally bad habits underscore the need for an independent evaluator to structure its work by adopting a small but meaningful set of indicators—or accountability metrics—that are digestible by public interest groups, the public at large, and the media. The focus of these metrics should be *institutional* progress toward the overall goal of restoring the Bay, as opposed to data that describes environmental conditions in the Bay. So, rather than reporting the blue crab population throughout the Bay, accountability metrics would disclose whether (1) all concentrated animal feeding operations have updated permits; (2) such facilities were inspected by a state official; (3) violations were found; and (4) the state took steps to compel the facility to correct these problems. In other words, accountability metrics should focus on the actual implementation of state plans in an effort to measure the extent to which the CBP and its partners’ efforts result in improved environmental quality.

The design of an accountability metrics program should be informed by the following five criteria:

- **Short and Concise.** Elaborate metrics involving multiple vague, qualitative measures have limited utility.
- **Worst, First.** Metrics should be prioritized to allow the Program and its partners to focus on the most important problems.
- **Information Forcing.** Metrics should not depend—or be circumscribed by—the availability of information needed to determine if they are met. If metrics were designed based only on whether information is available, they would not provide federal and state partners with any incentive to produce new information that might be important to Bay restoration.
- **Continuous Evolution.** Metrics should be changed as often as possible to reflect progress and spur further advances.

210. “To make matters worse, as the issues grow more numerous and technical, less well-financed interest groups find it hard to continue participating in the process. They often lack the time, the resources, or the expertise to continue reviewing all of the information that becomes part of the rulemaking record. Yet as their engagement wanes, so does the pluralistic engine considered so fundamental to the administrative process. They can no longer provide a means of culling out extraneous information and other chaff from the rulemaking through their vigorous engagement. Incentives to load as much information as possible into the system, combined with a reduction in the number and diversity of affected parties participating in the rulemaking process, set the stage for information capture.” *Id.* (citations omitted).

211. *Id.*

212. See Wiersema, *supra* note 81, at 1277–80; Steinzor & Jones, *An Accountability Mechanism*, *supra* note 40, at 6.

213. *About ChesapeakeStat*, CHESAPEAKESTAT, <http://stat.chesapeakebay.net/?q=node/5> (last visited Dec. 16, 2012).

214. See *Water Quality: Agriculture*, CHESAPEAKESTAT, http://stat.chesapeakebay.net/?q=node/130&quicktabs_10=1&quicktabs_15=7 (last visited Dec. 16, 2012).

215. *See id.*

216. Cf. James Bacon, *Fast Draw Clubs Grow*, THE HUTCHINSON NEWS, May 31, 1959, at 6 (“Guns don’t kill people. People kill people.”).

217. See *TMDL Implementation and Tracking*, U.S. ENVTL. PROT. AGENCY, <http://water.epa.gov/lawsregs/lawguidance/cwa/tmdl/implementation.cfm> (last updated Mar. 6, 2012) (“Because there are often numerous control practices involved in a single TMDL’s implementation, it would be particularly complex and expensive for states or EPA to track all implementation actions under all TMDLs. Moreover, whereas EPA oversees and approves TMDL development by states, the Agency does not have authority over their implementation.”).

218. *Compare* COMMONWEALTH OF VA., CHESAPEAKE BAY TMDL PHASE II WATERSHED IMPLEMENTATION PLAN (2012), available at <http://www.dcr.virginia.gov/vabaytmdl/documents/baytmdl2wip.pdf> (explaining how Virginia intends to comply with the numerical limits established by the Baywide TMDL), *with* MD. DEPT. OF THE ENV’T ET AL., MARYLAND’S PHASE II WATERSHED IMPLEMENTATION PLAN FOR THE CHESAPEAKE BAY TMDL (2012) available at http://www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/FINAL_PhaseII_WIPDocument_Main.aspx (explaining how Maryland plans to comply with the numerical limits established by the Baywide TMDL), and PA. DEPT. OF ENVTL. PROT., PENNSYLVANIA CHESAPEAKE WATERSHED IMPLEMENTATION PLAN PHASE 2 (2012) (explaining how Pennsylvania intends to comply with the numerical limits established by the Baywide TMDL), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/PhaseIIPAFINALPhase2WIP3-30-2012.pdf.

219. See generally ANDREEN ET AL., *supra* note 189, at 11–14 (proposing reforms of the CWA to make it more effective in protecting the environment).

- **Diagnostic.** Metrics should have the potential to help diagnose the causes of institutional and regulatory dysfunction—including funding gaps, technical complexity, failures of political will, inadequate statutory design, and agency capture.²²⁰

3. Solutions

Beyond developing core metrics and updating them to keep pace with new developments, the independent evaluator's most important function will be to verify federal and state planning documents by conducting spot-check inspections of what government officials have actually accomplished. Ideally, these progress reports will not simply issue a failing or a passing grade, but will suggest solutions.²²¹ This approach is especially important when control over remedying the poor or non-existent performance is vested in another branch of government.

For example, states have labored under severe economic constraints since the 2008 market crash that caused the ongoing recession, and governors have either cut or failed to increase the budgets for state environmental agencies.²²² To leverage the negative political implications of neglecting the Chesapeake Bay—especially in places like Maryland and Virginia where its ongoing environmental vitality is of crucial importance to the local economy—the independent evaluator's conclusion that budget shortfalls are causing the states to fall behind in meeting their TMDL targets could prove quite helpful.²²³ Useful suggestions on revenue-raising measures could help not only to get the governor's attention, but also to recruit additional allies in the state legislature.²²⁴

C. Arguments Against

Pennsylvania, Virginia, and West Virginia oppose creating an independent evaluator based on the assumption that adaptive management will fulfill the same purpose, allowing the Program to accomplish several program evaluations.²²⁵ Perhaps more to the point, “[w]ith reductions in federal and state funds, it is imperative that federal funds be directed to assisting the jurisdictions in meeting the required TMDL reductions and not be diverted to programs which do not have a direct effect on ground water quality improvement.”²²⁶ Adaptive management is a much-discussed and popular con-

cept in environmental law and public administration.²²⁷ The term refers to the idea that programs designed to preserve natural resources should be designed with enough flexibility to respond to changes in the natural world.²²⁸ As one group of natural resource scholars has described it:

The concept of adaptive natural resource management was developed in the 1970s by ecologist C.S. “Buzz” Holling and fisheries biologist Carl Walters. They argued that limited knowledge about natural systems called for a structured, iterative approach to environmental management. The goal of this approach was to reduce uncertainty over time by systematically incorporating learning into management. They called for managers to design their actions as scientific experiments, monitoring the outcomes, and adjust management direction in light of what the experiments revealed.²²⁹

Adaptive management programs must include:

[E]xplicitly stated goals and measureable indicators of progress toward those goals; an iterative approach to decision-making, providing the opportunity to adjust decisions in light of subsequent learning; systematic monitoring of outcomes and impacts; feedback loops so that monitoring and assessment produce continuous and systematic learning that in turn is incorporated into subsequent rounds of decision-making; explicit acknowledgment and characterization of risks and uncertainties . . . ; [and] an overarching goal to reduce uncertainty over time.²³⁰

Of course, nothing on the face of generally accepted concepts of adaptive management conflicts with the institutional design of the independent evaluator we have proposed. In fact, the independent evaluator could provide significant benefits to adaptive management, especially given the strong possibility that, without constant pressure, the Bay states will fall back into their old patterns of much talk and little action.

The demand to conduct independent evaluation has very little to do with the hope that at some future point, adaptive management will work well in the region. Adaptive management in the Chesapeake Bay may be a goal that some CBP participants have embraced in the expectation that it will allow them to make necessary pollution reductions in a “flexible” manner, which could mean more responsive and cost-effective reactions to environmental needs, or it could mean less timely and less expensive reactions.²³¹ But this approach is far from being implemented.

The NRC committee reported that “although many of the CBP partners think they are implementing adaptive management,” in fact there was no evidence that “any for-

220. See generally GAO, RECENT ACTIONS, *supra* note 4, at 13 (exposing some of these issues in the current CBP structure).

221. See generally ANDREEN ET AL., *supra* note 189, at 11–14 (issuing grades and suggestions).

222. See, e.g., DEP'T OF BUDGET & MGMT., MARYLAND BUDGET HIGHLIGHTS: FY 2011, at 44–45 (2011), available at <http://www.dbm.maryland.gov/agencies/operbudget/Documents/2011/FY2011BudgetHighlights.pdf> (disclosing the Governor's allocations for state agencies).

223. See Chesapeake Bay Program, *supra* note 19, at 7–14 (offering recommendations to improve adaptive management and identifying budget issues).

224. Valiant Corley, *County's Crisis Letter Gets Governor's Attention*, CURRY COASTAL PILOT (Mar. 16, 2012, 9:49 PM), <http://www.currypilot.com/News/Local-News/Countys-crisis-letter-gets-governors-attention> (discussing how a citizen group proposed revenue raising options to forestall cutting services, thereby gaining the governor's attention).

225. See Chesapeake Bay Program, *supra* note 19, at 13–14.

226. *Id.* at 14.

227. Holly Doremus et al., Making Good Use of Adaptive Management 1 (Ctr. for Progressive Reform, White Paper No. 1104, Apr. 2011), available at http://www.progressivereform.org/articles/Adaptive_Management_1104.pdf.

228. *Id.* at 2.

229. *Id.*

230. *Id.*; see also Rena Steinzor et al., *Getting Serious About Saving the Chesapeake Bay*, 25 THE ABELL REP., NO. 1, 2012, at 1–2 (“After decades of broken promises, the EPA and the other Bay states now say they're serious about cleaning up the Bay. The key will be holding them accountable.”).

231. See Chesapeake Bay Program, *supra* note 19, at 13–14.

mal adaptive management efforts for nutrient and sediment reduction” are in place.²³² The committee also noted that although “some WIPs refer to uncertainties about funding, effectiveness of specific management practices, incompatible datasets, future land-use changes, and the quality of the EPA’s models,” the states do not explain “whether, or how,” they would deal with these uncertainties through adaptive management.²³³

However mistaken the three states’ resistance to the creation of an independent evaluator may seem on the merits, the political dynamics in the region are sufficiently troubled that the idea is unlikely to be implemented unless EPA, other states, and citizen and environmental advocates put considerable pressure on the CBP to act.²³⁴

IV. Conclusion

At the same time that EPA has stepped forward to lead the Bay restoration effort, moving the states back into a system of regulatory compulsion,²³⁵ the nation is experienc-

ing a well-financed campaign to provoke an overwhelming backlash against such requirements.²³⁶ The danger is that non-specific claims about the evils of regulation will give recalcitrant state governments and potentially regulated industries the excuses they need to relapse into cooperative inaction, leaving the Chesapeake Bay and the nation’s other great waters to degenerate slowly but irrevocably into ecological ruin. This outcome would be particularly tragic because the severe transboundary pollution problems that plague the Bay will never be solved if state governments are left to their own devices.²³⁷

Transitioning from collaboration that primarily benefits environmental professionals to a system where governments are held accountable for inaction seems almost impossible in this polarized environment.²³⁸ The alternative, however, is even more unthinkable. Compared to the billions spent on restoration in the past three decades, the independent evaluator is a modest proposal, easy to set up and administer. All it will take is the determination to truly reform the CBP’s preference for cooperation that asks little and delivers even less.²³⁹

232. NAS/NRC COMMITTEE REPORT, *supra* note 20, at 108.

233. *Id.* at 110.

234. *See generally* Steinzor et al., *Getting Serious*, *supra* note 230, at 3–4 (stating that states have the ability to adopt more stringent standards and programs to help the Bay, but “political considerations in each state make that unlikely”).

235. *Chesapeake Bay TMDL: Creating the TMDL*, *supra* note 134.

236. Elana Schor & Sarah Abruzzese, *Tea Party’s Congressional Allies Diverge on How to Gut EPA*, N.Y. TIMES (Feb. 10, 2011), <http://www.nytimes.com/gwire/2011/02/10/10greenwire-tea-partys-congressional-allies-diverge-on-how-6387.html>.

237. *See generally* ANDREEN ET AL., *supra* note 189, at 11–14 (giving current efforts a failing grade).

238. Schor & Abruzzese, *supra* note 236 (“[T]ea party leaders are still working to align their ambitious rhetoric with direct actions to rein in U.S. EPA.”).

239. *See generally* ANDREEN ET AL., *supra* note 189, at 11–14 (evaluating the quality of the first phase of state watershed implementation plans).