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The Chesapeake Bay Restoration Act of 2000: New Requirements for Federal Agencies

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"The mildness of the air, the fertility of the soil, and the situation of the rivers are so propitious to the nature and use of man as no place is more convenient for pleasure, profit and mans sustenance."

Captain John Smith, describing the Chesapeake Bay in 1607

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North America's largest and most biologically diverse estuary is the Chesapeake Bay.\textsuperscript{2} Today, the Chesapeake Bay watershed is an ecosystem in crisis suffering from historic declines in water quality and living resources resulting from over four centuries of unchecked agricultural, industrial and residential development. Consequently, the Chesapeake Bay became the first estuary in the United States for which an intensive government-sponsored environmental restoration effort was created.\textsuperscript{3} The Chesapeake Bay Program,

\textsuperscript{2} See Chesapeake Bay Found., \textit{General Information About Chesapeake Bay}, at http://www.cbf.org/site/PageServer?page=general (last modified May 2003) [hereinafter \textit{General Information About Chesapeake Bay}].

a multi-governmental, cooperative partnership, manages and coordinates these efforts.\textsuperscript{4}

Motivated by a Congressional desire to both expand and strengthen federal agencies’ cooperative efforts to restore and protect the Chesapeake Bay, the Chesapeake Bay Restoration Act of 2000 ("CBRA") amended the Clean Water Act’s federal Chesapeake Bay Program.\textsuperscript{5} In addition to increasing the United States Environmental Protection Agency’s funding and oversight, it added three new and potentially significant requirements for federal agency facilities located within the Bay watershed.\textsuperscript{6}

In this Article, the author offers a comprehensive analysis of the new CBRA federal agency requirements. Beginning with a background overview of the Chesapeake Bay and ecosystem pollutant threats, this Article traces the evolution of the Chesapeake Bay Program and the inter-governmental, co-

\begin{footnotesize}
\begin{enumerate}
\item Id.
\item CWA § 117(f), 33 U.S.C. § 1267(f) (2000), as amended, states in relevant part:
\begin{enumerate}
\item Subwatershed planning and restoration
A Federal agency that owns or operates a facility (as defined by the Administrator) within the Chesapeake Bay watershed shall participate in regional and subwatershed planning and restoration programs.
\item Compliance with agreement
The head of each Federal agency that owns or occupies real property in the Chesapeake Bay watershed shall ensure that the property, and actions taken by the agency with respect to the property, comply with the Chesapeake Bay Agreement, the Federal Agencies Chesapeake Ecosystem Unified Plan, and any subsequent agreements and plans.
\item Budget coordination
\begin{enumerate}
\item In general
As part of the annual budget submission of each Federal agency with projects or grants related to restoration, planning, monitoring, or scientific investigation of the Chesapeake Bay ecosystem, the head of the agency shall submit to the President a report that describes plans for the expenditure of the funds under this section.
\item Disclosure to the Council
The head of each agency referred to in subparagraph (A) shall disclose the report under that subparagraph with the Chesapeake Executive Council as appropriate.
\end{enumerate}
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\end{footnotesize}
operative agreements known as the "Chesapeake Bay Agreements." The Article then provides a detailed analysis of CBRA’s federal agency facility planning and restoration, budget reporting, and agreement compliance requirements, focusing on the administrative and legal challenges faced by implementing agency facilities. The author concludes by addressing the anticipated effectiveness of the new CBRA requirements and their long-term viability.

I. INTRODUCTION

On November 7, 2000, the President signed CBRA. Enacted as Title II of the Estuaries and Clean Waters Act of 2000, the CBRA amended section 117 of the Federal Water Pollution Control Act—the federal legislation for the protection and restoration of the Chesapeake Bay. In addition to increasing United States Environmental Protection Agency’s ("EPA") Chesapeake Bay Program funding, oversight, technical assistance and grants, the CBRA amendments added new requirements to almost all federal agency facilities located within the Bay’s 64,000 square mile watershed.

The Chesapeake Bay is the largest and most biologically diverse estuary in North America. An important regional economic, aesthetic, and

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10 Id. Specific CBRA provisions include: continuation of the EPA’s Chesapeake Bay Program (CWA § 117(b), 33 U.S.C. § 1267(b)); an additional $180 million in Chesapeake Bay Program funding (CWA § 117(j), 33 U.S.C. § 1267(j); $40,000,000 for each fiscal year, 2001-05); new definitions (CWA § 117(a), 33 U.S.C. § 1267(a)); grant implementation and monitoring requirements (CWA § 117(e), 33 U.S.C. § 1267(e)); authorization for EPA to enter into interagency agreements with other federal agencies (CWA § 117(c), 33 U.S.C. § 1267(c)); and to provide technical assistance and assistance grants (CWA § 117(d), 33 U.S.C. § 1267(d)). CBRA also requires studies of both the current state of the Chesapeake Bay Program and the Chesapeake Bay Program’s effect on the Chesapeake Bay ecosystem (CWA §§ 117(h), (i), 33 U.S.C. §§ 1267(h), (i)).
12 "The name Chesapeake is derived from the Native American word 'Tschiswapeki' meaning 'great shell fish bay.'" General Information About Chesapeake Bay, supra note 2.
13 "An estuary is a body of water, open at one end to the ocean, in which salt water from the
recreational resource, its watershed is home to "more [than] 3,600 species of plant[s] and animal[s]" and more than fifteen million people. Federal agencies control nearly 2.2 million acres," or almost five percent of the Bay watershed."

Today, the Chesapeake Bay region is an ecosystem in crisis suffering from an historic decline in water quality and natural resources. Comprehensive scientific studies in the early 1970s confirmed that the Bay's degraded ecosystem was directly related to urban sprawl and the associated increases in agricultural development, population growth, and sewage treatment plant discharges. Consequently, the Bay became the first estuary in the United States targeted for intensive government-sponsored restoration efforts.

In 1980, recognizing the need for a regional watershed approach to both protect and restore the Chesapeake Bay, the General Assemblies of Maryland and Virginia created the Chesapeake Bay Commission, a multi-state legislative body, to assist in the cooperative management of the Chesapeake Bay. In 1983, the states of Virginia, Maryland, Pennsylvania, the District of Columbia, the Chesapeake Bay Commission, and EPA signed the first Chesapeake Bay Agreement establishing the Chesapeake Bay Program. A voluntary, cooperative inter-governmental partnership, the Chesapeake Bay Program implements and coordinates a comprehensive regional Bay eco-

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ocean mixes with freshwater draining from surrounding land." Chesapeake Bay Program, About the Chesapeake Bay—Bay FAQ, at http://www.chesapeakebay.net/info/bayfaq.cfm (last modified Aug. 19, 2003) [hereinafter Bay FAQ].

14 General Information About Chesapeake Bay, supra note 2.

15 Id.

16 Id.; Chesapeake Bay Program, Chesapeake Bay: An Introduction to an Ecosystem, at 1, Apr. 2000, available at http://www.chesapeakebay.net/info/ecointr.cfm (last visited Sept. 30, 2003) [hereinafter Introduction to an Ecosystem].


18 ENVTL. PROT. AGENCY, CHESAPEAKE BAY PROGRAM: PROGRESS REPORT OF THE BAYWIDE NUTRIENT REDUCTION REEVALUATION 1 (1992) [hereinafter PROGRESS REPORT].

19 Overview of the Bay Program, supra note 3.

20 Chesapeake Bay Comm'n, About the Commission: History, at http://www.chesbay.state.va.us/history.htm (last visited Sept. 9, 2003) [hereinafter About the Commission]. For more information about the Chesapeake Bay Commission ("CBC"), visit the CBC website at http://www.chesbay.state.va.us/home.htm.

21 See also 1983 Chesapeake Bay Agreement, at http://www.chesapeakebay.net/publications/1983agree.html [hereinafter 1983 Chesapeake Bay Agreement].
system restoration and protection strategy. Since 1983, the Chesapeake Executive Council has implemented a series of Chesapeake Bay Agreements designed to achieve the goals established by the Chesapeake Bay Program. These agreements include the original 1983 Agreement, the 1987 Agreement, the 1992 Amendments, and Chesapeake 2000.

While not directly involved in the Chesapeake Bay Agreement process, federal agencies other than EPA have also played an increasingly important role in Bay restoration efforts by participating in a series of inter-agency partnership agreements and plans. Specifically addressed in the CBRA amendments is the Federal Agencies' Chesapeake Ecosystem Unified Plan ("FACEUP"), signed by twenty federal agencies, departments, and services on November 5, 1998. Designed to expand current federal agency facility restoration efforts, FACEUP added fifty new commitments and initiatives aimed at protecting the Chesapeake Bay watershed.

Motivated by Congressional desire to bolster federal agency cooperation in efforts "to restore and protect the Chesapeake Bay; and...to achieve the goals established [by] the Chesapeake Bay Agreement," the CBRA amendments impose new requirements on federal agency facilities located within the Bay watershed. These requirements include agency participation

22 See also Va. Dep't of Envtl. Quality, Chesapeake Bay Program, available at http://www.deq.state.va.us/bay/ (last modified Aug. 22, 2003) [hereinafter Chesapeake Bay Program].
23 Established by the 1983 Chesapeake Bay Agreement, the Chesapeake Executive Council is comprised of the top executives of the Chesapeake Bay Program participants, including the governors of the Commonwealths of Virginia and Pennsylvania, and the State of Maryland, the mayor of the District of Columbia, the Chairman of the Chesapeake Bay Commission, and the Administrator of EPA. Envtl. Prot. Agency, Chesapeake Bay Program Office, About the Bay Program—Chesapeake Executive Council, at http://www.chesapeake.net/info/exec.cfm (last modified Sept. 21, 1999) [hereinafter Chesapeake Executive Council].
in regional and subwatershed planning and restoration programs, annual Bay program grant and project budget reporting, and mandatory compliance with existing Chesapeake Bay agreements and FACEUP. Additionally, the CBRA amendments require federal agencies to comply with "any subsequent agreements and plans." This Article provides a comprehensive analysis of CBRA federal agency requirements. Part II introduces the Chesapeake Bay, including Bay facts, history, and ecosystem pollutant threats. Part III puts the CBRA amendments in context by providing a brief overview of the Chesapeake Bay Program and the formal, inter-governmental and inter-agency voluntary cooperative agreements known as the Chesapeake Bay Agreements and the 1998 Federal Agencies' Chesapeake Ecosystem Unified Plan. Part IV examines the administrative and legal challenges faced by affected federal agencies attempting implementation of CBRA requirements. This section focuses on the difficulty implementing agencies face in discerning requirements from both current Chesapeake Bay Agreements and FACEUP as well as future "agreements and plans." Finally, the Article concludes with an analysis of the CBRA amendments' effectiveness to both expand and strengthen federal agency efforts to restore and protect the Chesapeake Bay.

II. THE CHESAPEAKE BAY

A. About the Bay

The Chesapeake Bay was formed approximately twelve thousand years ago when melting glaciers and polar ice caps raised sea levels and flooded the ancient Susquehanna River basin. It is now the world's third largest estuary.
“about 200 miles long, stretching from Havre de Grace, [Maryland], to Norfolk, [Virginia],” covering seven thousand square miles. The Bay’s 64,900 square mile watershed encompasses a drainage area that “equals the geography of six New England States.”

Receiving half of its water volume from the Atlantic Ocean and the other half from both ground water and 150 major tributary rivers and streams, with a volume of over eighteen trillion gallons of water, the Chesapeake Bay has an average depth of twenty-one feet. Its approximately 11,600-mile shoreline is longer than the entire West Coast of the United States. Approximately ninety-three percent of the Bay’s fresh water comes from the watershed’s nine largest tributaries. “The Susquehanna River [alone] provides [nearly] 50% of the freshwater [flow to] the Bay, [at] an average of 19 million gallons of water per minute.”

As a natural habitat for living resources, the Bay and its surrounding watershed support more than 2,700 species of plants, twenty-nine species of waterfowl and 348 species of finfish. Important Bay natural resources include birds, finfish, blue crabs, clams, oysters and bay grasses.

Fact Sheet; Chesapeake Bay Found., General Information and Facts About the Chesapeake Bay, at http://www.cbf.org/site/PageServer?pagename=resources_facts_general (last visited Sept. 11, 2003); Chesapeake Bay Program, Geologic History, at http://www.chesapeakebay.net/info/ecoint2sf.cfm (last modified May 4, 2000) [hereinafter Geologic History]; Chesapeake Regional Information Service, Geological History of the Chesapeake Bay, at http://www.globalclassroom.org/bayhist.html (last visited Dec. 12, 2002) [hereinafter Geological History of the Chesapeake Bay].

Bay FAQ, supra note 13; Chesapeake Bay Program, About the Bay--Bay Factoids: Did You Know, at http://www.chesapeakebay.net/info/factoids.cfm [hereinafter Bay Factoids]; General Information About Chesapeake Bay, supra note 2. The term watershed refers to a region of land “that is crisscrossed by smaller waterways that drain into a larger body of water.” Bay FAQ, supra note 13.

Bay Factoids, supra note 33; Bay FAQ, supra note 13.

Bay Factoids, supra note 33.


Bay Factoids, supra note 33.

Id.

The Chesapeake Bay is the largest producer of blue crab, or callinectes sapidus, in the country, yielding an average of eighty million pounds of crab each year from 1993 to 1998.
A valuable commercial and recreational resource, the Chesapeake Bay produces over five hundred million pounds of seafood per year,\textsuperscript{43} functions as a major shipping and commercial waterway,\textsuperscript{44} and offers a variety of esthetic values and recreational opportunities, including boating, fishing, crabbing, swimming, hunting and camping.\textsuperscript{45}

Chesapeake Bay Program, \textit{Chesapeake Bay: An Important Resource}, at http://www.chesapeakebay.net/info/ecointtb.cfm [hereinafter \textit{Chesapeake Bay: An Important Resource}]. From 1988 to 1992, the Chesapeake Bay's estimated crab population declined fifty percent from about 1.7 billion to 440 million. \textsc{Wennersten}, supra note 34, at 207. For more about blue crabs in the Bay, visit the EPA Chesapeake Bay Program website at http://www.chesapeakebay.net/info/crabshell.cfm (last modified Oct. 1, 2001).

\textsuperscript{41}A significant contributor to the region's economic development, the eastern, American or Atlantic oyster, or \textit{crassostrea virginica}, was once considered the Chesapeake Bay's defining and most abundant natural resource. \textsc{Wennersten}, supra note 34, at 111. At the beginning of the nineteenth century, Maryland alone was producing about 500,000 bushels of oysters annually; by 1850, its annual catch was 1,350,000 bushels. \textit{Id.} at 111-12. Due to a combination of water pollution, loss or degradation of habitat, over-harvesting, disease, and poor resource management practices, average Bay annual oyster catches have dramatically declined. See generally \textit{id}. Bay oyster meat production fell from approximately 125 million pounds in 1880 to twenty-five million pounds in 1978. \textit{Id.} at 206-07. In 1979, the Chesapeake Bay provided one-fourth of the total United States oyster production. \textit{Id.} at 207.

For more information about the American oyster, visit the EPA Chesapeake Bay Program website at http://www.chesapeakebay.net/info/american_oyster.cfm (last modified Feb. 4, 2002).

\textsuperscript{42}Sixteen common species of bay grasses, also known as submerged aquatic vegetation ("SAV"), grow in the shallow waters of the Chesapeake Bay and its tributaries. \textsc{Bay FAQ}, supra note 13. "SAV plays an important ecological role [in the Bay's] aquatic environment by: . . . filtering and trapping sediment . . . providing food and habitat for waterfowl, fish, shellfish . . . serving as nursery habitat . . . producing oxygen in the water column . . . protecting shorelines from erosion by slowing down wave action . . . [and] [r]emoving excess nutrients." Chesapeake Bay Program, \textit{Bay Grasses}, at http://www.chesapeakebay.net/info/baygras.cfm [hereinafter \textit{Bay Grasses}]. Chesapeake Bay grasses have declined from more than 600,000 acres when European explorers first arrived in the Bay to just over 63,000 acres in 1999 due to decreased water quality. Chesapeake Bay Found., \textit{Under Water Bay Grasses, available at http://www.cbf.org/site/PageServer?pagename=resources_facts_sav} (last modified Nov. 2002).

\textsuperscript{43}"In 1997, the dockside value of [the Bay's] commercial shellfish and finfish harvests was close to $196 million." Chesapeake Bay Program, \textit{Chesapeake Bay: An Important Resource}, supra note 40.

\textsuperscript{44}In 1997, the Hampton Roads Complex (Portsmouth, Norfolk, Hampton and Newport News) and the Port of Baltimore "handled more than 70 million metric tons of both imports and exports. . . ." \textit{Id}

\textsuperscript{45}\textit{Id}. In 1998, Maryland and Virginia registered "more than 428,000 pleasure boats and other personal [water] craft . . . ." "The National Marine Fisheries Service estimates that close to
Today, more than fifteen million people live, work and play within the watershed. With about three hundred people moving into the region each day, the Bay watershed’s population is expected to increase by an additional three million persons by the year 2020.

B. Chesapeake Bay History

Archeological records demonstrate that “humans have inhabited the [Bay’s] watershed since [approximately] 8,000 B.C.” European explorers and settlers arriving in the Chesapeake Bay region in the early Seventeenth Century found a number of indigenous Native Americans in “small, seminomadic tribes,” tending crops in cleared fields, managing woodlands for hunting, and harvesting the Bay water’s abundant shellfish and finfish resources.

From the English colonial period until the mid-1800’s, “[a]griculture and commerce . . . dominate[d] the [Chesapeake Bay] regional economy” with attendant adverse ecological results. Growing settlements and insatiable European markets for lumber and tobacco, resulted in indiscriminate deforestation and non-stop land clearing for farms and plantations. This loss of forest cover and other landscape changes resulted in increased soil erosion, floods and water pollution from debris and sediment loadings.

The Industrial Revolution and its concomitant population and economic growth brought additional ecological stresses to the Bay. “[C]onstruction of mill dams and other obstructions on [tributary] rivers” prevented spawning and helped to deplete the Bay’s migratory fish populations. Unchecked urban development in cities like Norfolk, Baltimore, Annapolis, and Wash-
ingston, D.C., resulted in the release of untreated human wastes and other sewage into the Bay. Increased mining in the Potomac and Susquehanna Valley coalfields sent iron hydroxide acid mine pollution into the Bay. Factories, tanneries, and other industrial activities released toxic chemicals into the Bay and residential real estate development contributed to sediment loadings and shoreline erosion.

Post-World War II regional land use practices, including proliferating highway systems, increased automobile use, rampant suburban sprawl, and increased destruction of wetlands, accelerated the ecosystem problems of the Bay. These problems, and a host of modern sources of water quality degrading pollutants, like wastewater treatment plants and septic tank discharges, vehicle emissions, storm water and non-point source run-off from impervious surfaces, and thermal pollution from nuclear power plants continue to plague the Bay.

54 "By 1916... Baltimore's population produced 37,915 tons of collected garbage [and] Washington, D.C., produced... 46,293 tons." Id. at 147.
55 Approximately seven billion tons of anthracite coal have been removed from Susquehanna Valley coal veins since approximately 1700. Id. at 92.
56 Id. at 149-52.
57 WENNERSTEN, supra note 34, at 212-15; see also Chesapeake Bay Found., Land and the Chesapeake: Land Use Sprawl, at http://www.cbf.org/site/PageServer?pagename=about_whatwedo_epr_land_landuse_sprawl_index (last visited Nov. 16, 2003) [hereinafter Land Use Sprawl]; Bay FAQ, supra note 13. For major sources of Bay water pollution, see Chesapeake Bay Found., Save the Bay: Water Pollution in the Chesapeake Bay, at http://www.cbf.org/site/PageServer?pagename=resources_facts_water_pollution (last modified July 2003).
58 As one historian noted, even as late as 1955, "more than sixty sizable Maryland towns on bay tributaries had either inadequate plants for sewage disposal and treatment or no facilities at all." WENNERSTEN, supra note 34, at 149.
59 In 1991, Maryland reported 250,000 homes with septic tanks, Virginia reported 656,000 homes, and Pennsylvania reported over one million. Id. at 199.
60 Id. at 192-93, 203.
C. **Chesapeake Bay Pollutants**

A number of man-made pollution threats affect the Chesapeake Bay's water quality, including excess nutrients, toxic chemical contamination, air pollution, sedimentation, and erosion.

1. **Excess Nutrients**

Excess nitrogen and phosphorus nutrient loadings are the Bay's most serious pollution problems. Used primarily by plants and animals to synthesize protein, nitrogen enters the Bay in several chemical forms, such as oxidized forms of nitrate, nitrite, and ammonia. Phosphorus occurs in dissolved organic and inorganic forms, often combining with suspended sediment particles and settling to the bottom of the Bay. While some nutrients come from natural sources such as decaying organic matter in forests and wetlands, the majority of the Bay's excessive nutrient concentrations come

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61 "Water clarity is a measure of the amount of sunlight that penetrates into the water and reaches the leaves of underwater Bay grasses." Chesapeake Bay Program, *Chesapeake Bay Water Clarity Criteria*, at http://www.chesapeakebay.net/info/wqcriteria/tech/quality.cfm (last modified May 12, 2003) [hereinafter *Water Clarity Criteria*]. Factors that determine water quality include sediments and other particles suspended in the water column, the amount of algae in the water and on the leaves of underwater plants, as well as water salinity (the number of grams of dissolved salts in one thousand grams of water, usually expressed in parts per thousand ("ppt")—average sea water is thirty-five ppt). Chesapeake Bay Program, *Water: Salinity, Temperature, and Circulation*, at http://www.chesapeakebay.net/info/ecoint3a.cfm (last modified May 4, 2000) [hereinafter *Water: Salinity, Temperature, and Circulation*]; Chesapeake Bay Found., *Bay Glossary*, at http://www.cbf.org/site/PageServer?pagename=resources_glossary (last visited Sept. 10, 2003) [hereinafter *Bay Glossary*].


63 Each year, approximately 330 million pounds of nitrogen and twenty million pounds of phosphorus reach the Chesapeake Bay. Chesapeake Bay Found., *Water Pollution in the Chesapeake Bay*, at http://www.cbf.org/site/PageServer?pagename=resources_facts_water_pollution (last modified July 2003) [hereinafter *Water Pollution in the Chesapeake Bay*].

64 Chesapeake Bay Program, *Food Production & Consumption*, at http://chesapeakebay.net/info/ecoint6c.cfm (last modified May 4, 2000) [hereinafter *Food Production and Consumption*].

65 Chesapeake Bay Program, *Chemical Make-Up*, at http://chesapeakebay.net/info/ecoint3c.cfm (last modified May 4, 2000) [hereinafter *Chemical Make-up*].
from human activities. These activities include agriculture, sewage treatment plants, large-scale animal operations, vehicle exhaust, septic systems, runoff from roadways, housing development, residential and commercial lawn fertilizers, power plants and factory air deposition.

While nutrients occur naturally in water, soil and air, excessive concentrations can be detrimental to water quality and clarity. In a process known as eutrophication, excessive nutrients entering the Bay's water column cause the rapid growth of naturally occurring phytoplankton, creating "algal blooms" or dense plankton populations. These algal blooms eventually become so thick they block the sunlight required by the Bay's submerged aquatic vegetation to produce food. Additionally, the bacterial decomposition process of unconsumed, sunken algae results in the depletion of dissolved oxygen with obvious negative effects on vegetation, fish, and other aquatic living resources. Finally, excessive nutrient levels in the Bay encourage the growth of the toxic organism _pfiesteria piscicida_ — a micro-

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66 Id.
67 "The number one source of nitrogen pollution to the Bay comes from agriculture... which contributes 40 percent of the nitrogen and 50 percent of the phosphorous entering the Chesapeake Bay." _Water Pollution in the Chesapeake Bay, supra_ note 63. Susquehanna River Valley farmers and residents alone annually contribute fifty-eight million pounds of nitrogen and three million pounds of phosphorus to the Bay's nutrient load. _WENNERSTEN, supra_ note 34, at 198 (citing John Hartigan of the Northern Virginia Planning District Commission).

68 "The Bay watershed has 288 major wastewater treatment plants (above 500,000 gallons/day) contributing 61 million pounds of nitrogen per year to the Bay." Chesapeake Bay Found., _Reducing Nitrogen and Phosphorous Pollution from Wastewater Treatment Facilities_, at http://www.cbf.org/site/PageServer?pagename=resources_facts_nutrient_red_ww (last modified July, 2002) [hereinafter _Reducing Nitrogen and Phosphorous Pollution from Wastewater Treatment Facilities_].

69 _Bay Glossary, supra_ note 61; _Chemical Make-up, supra_ note 65.

70 _Id._

71 _Bay FAQ, supra_ note 13; see also _Water Pollution in the Chesapeake Bay, supra_ note 63.

72 Algae are defined as a "group of primitive, non-flowering plants which include certain seaweeds and microscopic phytoplankton." _Bay Glossary, supra_ note 61.

73 Chesapeake Bay Program, _Nutrient Pollution_, at http://www.chesapeakebay.net/info/nutrients.cfm (last modified Sept. 17, 2001) [hereinafter _Nutrient Pollution_].

74 Dissolved oxygen is free oxygen released into the water by photosynthesis (the process by which plants convert sunlight into living tissue using carbon dioxide, water, and nutrients) and by air-water interactions. It is essential for the respiration of aquatic life. _Chemical Make-up, supra_ note 65.

75 _Id._
scopic organism that may cause "significant, but temporary, [human] health impacts, including short-term memory [impairment], respiratory difficulties," and other neuropsychological symptoms.  

2. Toxics

Toxic chemical contamination is another source of Bay water pollution. Toxic chemicals are water contaminants, other than nutrients, that adversely effect plant and animal "reproduction, development, and ultimately, the survival of living resources." A contaminant's toxicity to an exposed living resource is dependent on several factors, including "concentration, chemical and physical form, persistence, . . . chemical and physical properties of the water body and the type and life stage of the living resource[s] . . ." Chemicals can reach harmful levels through bioaccumulation in animal tissue, when they accumulate in bottom sediments and in the water column. Human sources of excessive chemical contamination include point source discharges from manufacturing processes, wastewater treatment plants, and urban storm water runoff (oil and grease), non-point source residential and agricultural runoff (pesticides), and atmospheric deposition from automobile exhausts and fossil fuel power plant emissions.

The full impact of toxic contaminates on the Chesapeake ecosystem is complex and not yet fully understood. While there is no evidence of severe, widespread toxic problems in the Bay or its tributaries, the nature, extent, and severity of toxic effects varies widely throughout the Chesapeake Bay system.

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76 Bay FAQ, supra note 13.
77 Chesapeake Bay Program, Toxics Pollution, at http://www.chesapeakebay.net/info/toxics1.cfm (last modified Feb. 15, 2002) [hereinafter Toxics Pollution].
78 Id.
79 Id.
80 Id.
81 See WENNERSTEN, supra note 34, at 149-52, 214-15.
82 Id. Studies have identified toxic effects in three "hot spots:" the Elizabeth River in Virginia; the Baltimore Harbor/Patapsco River in Maryland, and the Anacostia River in the District of Columbia. In 1999, an additional ten other areas were designated as "Areas of Emphasis." Bay FAQ, supra note 13.
3. Air Pollution

Air pollution deposition is another significant contributing source of nitrogen (as nitrogen oxide (NOx)) and toxic chemical contaminants into the Chesapeake Bay ecosystem.\textsuperscript{84} Pollutants released into the air eventually fall to the earth’s surface depositing themselves, by the processes of either wet deposition or dry deposition,\textsuperscript{85} directly into the Bay’s waters or indirectly on the landscape to be later “transported to the Bay water via runoff or groundwater flow.”\textsuperscript{86} While some air pollution is naturally occurring (for example, forest fires), the main sources of air pollutants are man-made: stationary and area sources (utilities, chemical and manufacturing industries); mobile sources (vehicles, boats, planes, and trains); and agricultural sources (ammonia from manure, aerial drift of fertilizers, herbicides, and pesticides).\textsuperscript{87} Nitrogen oxide emissions within the Chesapeake Bay’s 418,000 square-mile airshed (an area six and one-half times larger than the Bay’s watershed) contribute approximately twenty-five percent of the Bay’s nitrogen load.\textsuperscript{88}

4. Sedimentation and Erosion

“Sediments are loose particles of clay, silt, sand and other substances . . . suspended in the water [column] . . . .”\textsuperscript{89} Sedimentation occurs when these soils and other solids are washed or carried off the land into waterways and transported by tidal rivers to the Bay where they settle to the bottom.\textsuperscript{90} The

\textsuperscript{84} Chesapeake Bay Program, \textit{Air Pollution}, at http://www.chesapeakebay.net/info/air_pollution.cfm (last modified Sept. 14, 2001) [hereinafter Air Pollution].
\textsuperscript{85} Wet deposition is “[a]tmospheric deposition that occurs when precipitation (rain and snow) carries gases and particles to the earth’s surface.” \textit{Id}. Dry deposition “occurs when particles settle to a surface, collide with and attach to a surface (adsorption) or are absorbed.” \textit{Id}.
\textsuperscript{86} \textit{Id}.
\textsuperscript{87} \textit{Id}. Determining factors of how far air pollutants can travel include “makeup of the pollutant, weather conditions (wind, temperature, humidity), type and height of emission source (smokestack, automobile tailpipe), and the presence of other chemicals in the air.” \textit{Id}. Through long-range transport, air pollutants can travel for hundreds of miles from their emission source before returning to earth.
\textsuperscript{88} \textit{Id}.
\textsuperscript{89} Chesapeake Bay Program, \textit{Sediment Pollution}, at http://www.chesapeakebay.net/info/sediment.cfm (last modified Nov. 15, 2001) [hereinafter Sediment Pollution]. Sediment is “matter that settles and accumulates on the bottom of a body of water or waterway.” \textit{Bay Glossary}, supra note 61.
\textsuperscript{90} \textit{Sediment Pollution}, supra note 89.
James River "at flood crest can carry almost 300,000 cubic yards of soil during a single span of twenty-four hours." 91 Human activities in the Bay's watershed, including deforestation, 92 residential and agricultural land-clearing practices, wetlands destruction, storm water channeling, increasing impervious surface cover, and dredging operations 93 have significantly accelerated watershed soil erosion and concomitantly, Bay sediment loadings. 94

The accumulation of excessive suspended sediments in the Bay's water column is detrimental to water quality. 95 Sediments cloud the water, reducing light available to Bay underwater grasses, "smother [habitats and] bottom-dwelling plants and animals, such as oysters and clams," and fill ports and waterways. 96 Additionally, sediments can carry nutrients, especially phosphorus, and act as a "chemical sink[]" by absorbing high concentrations of certain toxic materials, such as oil, pesticides and other persistent chemicals and contaminants. 97 Sedimentation's secondary effects include "reduce[d] filtration... [and] lower[ed] water tables [resulting in] dr[ied] up springs and streams." 98

D. Land Use Impacts

Modern regional development patterns, fueled by accelerated population growth, 99 have resulted in significant land use changes that adversely impact the Bay watershed. 100

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91 Wennersten, supra note 34, at 54.
92 From 1978 to 1992, forest-covered land in the Chesapeake Bay watershed was reduced by 1.5 million acres and "tree-cover in the area closest to the Bay declined from 51 percent in 1973 to 39 percent in 1997." Id. at 213.
93 "In 1957 the Army Corps of Engineers estimated that since 1900 it had deposited as much as 40 million cubic yards of dredge spoil on the bottom [of the Chesapeake Bay]." Id. at 183.
94 Bay FAQ, supra note 13; Land Use Sprawl, supra note 57; Chesapeake Bay Program, Urban Storm Water, at http://www.chesapeakebay.net/info/stormwater.cfm (last modified July 22, 2003) [hereinafter Urban Storm Water].
95 Chesapeake Bay Program, Suspended Sediments: Composition and Effects, at http://www.chesapeakebay.net/info/ecoint3b.cfm (last modified Sep. 21, 1999) [hereinafter Suspended Sediments].
96 Id.
97 Id.
98 Wennersten, supra note 34, at 55 (quoting L.G. Gottschalk).
99 The regional Bay watershed population increased from about 8.4 million in 1950 to 14.7 million in 1990 and demographers predict at least 2.6 million residents by 2020. Wennersten, supra note 34, at 205-06.
100 Id.
In the early nineteenth and twentieth centuries, the most common development pattern of the Bay region was high-density "compact towns and cities surrounded by farms and forests dot[ting] the watershed." Following World War II, increased automobile use fueled by the Federal government's extensive highway expansion projects, caused a shift towards increasingly low-density or single-use development patterns. Low-density or single-use development, also known as "suburban sprawl," is the development of land away from populated areas and other community needs, such as business and retail centers, schools, and other services. This development pattern typifies the construction of new housing developments along with the infrastructure needed to support these developments, such as roads and parking lots in more rural areas. Adverse impacts include increased community economic costs for government services, decreased quality of life due to road congestion, loss of open space, and wildlife habitat displacement.

Low-density land use development practices increase storm water runoff, adding nutrient, chemical, and sediment pollution to the Bay. These land use practices consume open-space lands, such as farms, forests, and wetlands, and increase impervious surfaces such as roads, parking lots, and rooftops. The result is increased storm water run-off and nutrient, sediment, and other pollutant loadings to adjacent receiving water bodies. On a per acre basis, cities contribute about twice the nutrient loadings to the Chesapeake Bay and

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1 Chesapeake Bay Program, Landscape Changes, available at http://www.chesapeakebay.net/info/landscape.cfm (last modified Sept. 27, 1999) [hereinafter Landscape Changes]; Chesapeake Bay Program, Land Use and Its Impacts on the Chesapeake Bay, at http://www.chesapeakebay.net/info/landuse.html (last visited Dec. 12, 2002) [hereinafter Land Use and Its Impacts].

2 Landscape Changes, supra note 101; Land Use and Its Impacts, supra note 101.

3 Bay FAQ, supra note 13.

4 Landscape Changes, supra note 101; Land Use and Its Impacts, supra note 101.

5 Id.

6 Id.

7 Urban Storm Water, supra note 94.

8 Id. Forests and other riparian areas play a critical role in protecting the Chesapeake Bay's water quality. "They protect streams and rivers... capture rainfall... reduce storm water runoff... and erosion" and trap nutrients. Bay FAQ, supra note 13.

9 Landscape Changes, supra note 101; Land Use and Its Impacts, supra note 101. Urban storm water runoff from the Chesapeake Bay watershed annually contributes "about 16% of phosphorus, 11% of nitrogen, and 9% of sediment loads to the Bay." Urban Storm Water, supra note 94.
its tributaries than do agricultural lands. Population increases also result in increased wastewater treatment plants and septic tanks contributing to Bay excess nutrient and toxic loadings. It also results in an increased number of vehicle miles traveled in the Bay’s watershed, with exhaust emissions adding nitrogen oxide nutrient pollution to the Bay and its tributaries.

"[C]oncentrated along sensitive waterfront areas . . . , [d]evelopment of the shore lands is rapidly increasing." Today, "[less] than 1% of the Chesapeake [Bay’s] . . . shoreline today is in public ownership." Reflecting a growing demand for access to the Bay’s shores and waters, shore land development in some waterfront areas has increased from ten to fifteen percent ten years ago, to fifty to sixty percent today. In 1950, each new [Chesapeake Bay watershed] resident accounted for .18 acres of [development];" by 1980 that number was up to .65 acres. As an example of this trend, from 1970 to 1980, Maryland’s population grew seventy-five percent; the state added about 1.4 million new residents between 1955 and 1980. Between 1970 and 1980, "the amount of developed land [in Maryland] grew by 16.5 percent."

Directly proportional to the increase in shore land development is the loss of tidal and nontidal wetlands. Wetlands help restore and protect water quality and reduce flooding and erosion as well as provide recreation, habitats for animals and plants, and natural resources such as fish, shellfish, waterfowl, and timber. From 1870 to 1970 Virginia lost 42 percent of its nontidal and tidal wetlands and Maryland lost 73 percent. From 1970 to 1974, "the amount of vehicle miles traveled in the [Chesapeake Bay] watershed increased by 105 percent." Land Use and Its Impacts, supra note 101.

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110 Urban Storm Water, supra note 94.
111 WENNERSTEN, supra note 34, at 211.
112 From 1970 to 1974, “the amount of vehicle miles traveled in the [Chesapeake Bay] watershed increased by 105 percent.” Land Use and Its Impacts, supra note 101.
113 Id.
114 Id.
115 Id.
116 WENNERSTEN, supra note 34, at 206.
117 Id. at 211, 229.
118 Id. at 211.
119 “Wetlands’ is the collective term for marshes, swamps, bogs and similar areas found between dry land and water along the edges of streams, rivers, lakes, ponds, and coastlines.” Chesapeake Bay Program, Wetlands, at http://www.chesapeakebay.net/info/wetlds1.cfm (last modified Jan. 10, 2002) [hereinafter Wetlands].
120 Id.
121 WENNERSTEN, supra note 34, at 209.
2,800 acres annually.\textsuperscript{122} In the last decade of the twentieth century, however, the Chesapeake Bay watershed region began to lose wetlands at the rate of about 4,500 acres per year.\textsuperscript{123}

III. THE CHESAPEAKE BAY PROGRAM, THE CHESAPEAKE BAY AGREEMENTS, AND THE FEDERAL AGENCIES’ CHESAPEAKE ECOSYSTEM UNIFIED PLAN

Beginning in the late 1950s, scientists, local governments, and concerned “citizens began to notice serious declines in the [Chesapeake] Bay’s health and living resources.”\textsuperscript{124} Citing the need for conclusive scientific study that evaluated human impacts on the Bay as an ecosystem, Congress directed the United States Army Corps of Engineers to study the physical characteristics and hydrodynamics of the Bay basin.\textsuperscript{125} The results of those studies are summarized in three reports: the Chesapeake Bay Existing Conditions Report (1973); the Chesapeake Bay Future Conditions Report (1978); and the Chesapeake Bay Low Freshwater Inflow and Tidal Flooding Study Reports (1984).\textsuperscript{126}

Concurrently in 1976, Congress directed EPA to conduct a comprehensive evaluation “of the Bay’s water quality and living resources.”\textsuperscript{127} EPA’s resulting September 1983 report, entitled State of the Chesapeake Bay, substantiated the historic decline of the Bay’s natural resources and water quality and directly related it to urban sprawl and the related increases in “agricultural development, population growth and sewerage treatment plant” discharges.\textsuperscript{128} In addition, the EPA “study identified 10 areas of environmental concern in the Bay: excess nutrients, toxic contamination, declines in [sub-aquatic vegetation], wetlands alteration, shoreline erosion, hydrologic modification, fisheries modification, shellfish bed closures, dredging and dredged material disposal, and the effects of boating and shipping.”\textsuperscript{129}

\textsuperscript{122} Wetlands, supra note 119.
\textsuperscript{123} WENNERSTEN, supra note 34, at 211.
\textsuperscript{125} Id.
\textsuperscript{126} Id.
\textsuperscript{127} Id.
\textsuperscript{128} Progress Report, supra note 18, at 1.
\textsuperscript{129} DoD Initiative, supra note 124.
Recognizing the need for a regional watershed approach to both protect and restore the Chesapeake Bay's ecosystem, the affected Bay watershed jurisdictions—Virginia, Pennsylvania, Maryland, and the District of Columbia—along with EPA and other Federal agencies, agreed to develop a cooperative strategy to implement and coordinate a comprehensive Bay ecosystem restoration and protection program. Fundamental elements of this cooperative strategy included formation of the inter-state Chesapeake Bay Commission, implementation of EPA's Chesapeake Bay Program and the execution of a series of formal inter-governmental and inter-agency cooperative agreements.

A. The Chesapeake Bay Program

Established by the signing of the 1983 Chesapeake Bay Agreement, the Chesapeake Bay Program is a unique regional inter-governmental partnership designed to help restore and protect the waters and natural resources of the Chesapeake Bay. The Chesapeake Bay Program partners include the Commonwealths of Virginia and Pennsylvania, the State of Maryland, the District of Columbia, the Chesapeake Bay Commission, EPA, and a number of citizen advisory groups.

Enacting the Water Quality Act of 1987, Congress formally authorized EPA's participation in the Bay Program by adding section 117 to the Clean Water Act. In addition to formally authorizing EPA's continuing participation in the Chesapeake Bay Program, section 117 of the Clean Water Act:

131 1983 Chesapeake Bay Agreement, supra note 21.
132 Overview of the Bay Program, supra note 3.
133 1983 Chesapeake Bay Agreement, supra note 21.
134 Id.
136 33 U.S.C. § 1267(a) (2000). In the 1987 CWA amendments, Congress authorized three million dollars a year for fiscal years 1987 through 1990 to support the activities of the EPA's Chesapeake Bay Program Office and ten million dollars a year for fiscal years 1987 through 1990 for matching interstate development grants. Id. In 2000, the CBRA amendments increased federal Chesapeake Bay Program funding an additional $180 million—"$40,000,000 for each of fiscal years 2001 through 2005." CWA § 117(j), 33 U.S.C. § 1267(j).
Act also directed EPA to create a Chesapeake Bay Program Office within EPA.\textsuperscript{137}

\textbf{B. The Chesapeake Executive Council}

Established by the 1983 Chesapeake Bay Agreement, the Chesapeake Executive Council is comprised of the "top executives" of the Chesapeake Bay Program participants, including the governors of the Commonwealths of Virginia and Pennsylvania, and the State of Maryland, the mayor of the District of Columbia, the Chairman of the Chesapeake Bay Commission, and the Administrator of EPA.\textsuperscript{138} Their efforts include the drafting and implementation of the formal, cooperative inter-governmental Chesapeake Bay Agreements.\textsuperscript{139}

\textbf{C. The Chesapeake Bay Commission}

In 1980, the General Assemblies of Maryland and Virginia (joined by Pennsylvania in 1985) responded to "a 1978 study by the joint Maryland-Virginia Chesapeake Bay Legislative Advisory Commission" by creating the Chesapeake Bay Commission ("Commission") to cooperatively manage the Bay.\textsuperscript{140} "The Commission is composed of seven-member delegations from each of the three states—five state legislators (three from each House and two from each Senate), the Governor or his designee, and a citizen representative." The state legislatures decide legislative and citizen Commission membership.\textsuperscript{141} "Serving as the legislative arm of the Chesapeake Bay Program," Commission responsibilities include advising the legislatures in

\begin{footnotesize}
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\item[137]33 U.S.C. § 1267(b)(2)(A). The EPA Region III Chesapeake Bay Program Office is located in Annapolis. This office is directed to make information available to the public, coordinate federal and state efforts to improve Bay water quality, and conduct scientific research on the Bay. 33 U.S.C. § 1267(b)(2)(B). For more information, visit the EPA Chesapeake Bay Program website at http://www.epa.gov/r3chespk/index.htm (last modified Aug. 22, 2003).
\item[138]See also 1983 Chesapeake Bay Agreement, supra note 21; Chesapeake Bay Program, supra note 22.
\item[139]Chesapeake Executive Council, supra note 23.
\item[140]About the Commission, supra note 20; Chesapeake Bay Comm'n, Structure and Membership, at http://www.chesbay.state.va.us/strucmem.htm (last visited Sept. 9, 2003) [hereinafter Structure and Membership].
\item[141]Structure and Membership, supra note 140.
\item[142]Id.
\end{enumerate}
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responding to mutual Chesapeake Bay concerns, promoting "interjurisdictional coordination and cooperation" for resource planning, and "collecting, analyzing, and disseminating information pertaining to the region and its resources."\(^{143}\)

D. The 1983 and 1987 Chesapeake Bay Agreements

In December 1983, the members of the Chesapeake Executive Council entered into the first Chesapeake Bay Agreement ("1983 Agreement").\(^{144}\) Instead of committing to specific objectives, the agreement established four general goals: improvement of water quality and living resources, accommodation of environmentally sound growth, promotion of public input, and promotion of cooperation among the council members.\(^{145}\) The 1983 Agreement also established the major elements of a cooperative structure to develop and coordinate a comprehensive Bay restoration and protection program.\(^{146}\) These elements included the creation of the Chesapeake Bay Program and the Chesapeake Executive Council.\(^{147}\)

On December 15, 1987, the 1983 Chesapeake Bay Agreement signatories signed a second agreement, the 1987 Chesapeake Bay Agreement ("1987 Agreement").\(^{148}\) Reaffirming and expanding the scope of their original commitments, the 1987 Agreement identified the condition of the Bay's living resources as the ultimate indicators of the Bay's health and established twenty-eight specific commitments for promotion of the Bay's health.\(^{149}\) These commitments focused on the topics of living resources, water quality, population growth and development; public information, education, and participation; public access; and governance.\(^{150}\) In addition, the 1987 Agreement established goal to reduce phosphorus and nitrogen loads entering the Bay by forty percent before the year 2000.\(^{151}\)

\(^{143}\) Chesapeake Bay Comm'n, Purpose, available at http://www.chesbay.state.va.us/purpose.htm [hereinafter Purpose].
\(^{144}\) 1983 Chesapeake Bay Agreement, supra note 21.
\(^{145}\) Id.
\(^{146}\) Id.
\(^{147}\) Id.
\(^{148}\) 1987 Chesapeake Bay Agreement, supra note 24.
\(^{149}\) Id.
\(^{150}\) Id.
\(^{151}\) Id.
E. The 1992 Chesapeake Bay Amendments

In 1992, the Bay Program partners agreed to amend the 1983 and 1987 Agreements after identifying a need to expand program efforts to include the Chesapeake Bay's tributaries, implement the Clean Air Act, and reduce nitrogen and phosphorus loadings. They also reaffirmed their commitments made in the 1987 Chesapeake Bay Agreement to seek to achieve an overall forty percent mainstream nutrient reduction goal. To do this, the signatories agreed to expand the program to include development and implementation of tributary-specific and air deposition nutrient reduction strategies. They also agreed to use submerged aquatic vegetation “distribution as an initial measure of progress in the restoration of living resources and water quality,” to explore cooperative inter-state working relationships with New York, West Virginia and Delaware (also in the Chesapeake Bay basin), and to explore the use of improved, cost-effective nutrient reduction technologies.

F. Chesapeake 2000

On June 28, 2000, the Chesapeake Executive Council again reaffirmed their commitment to protect and restore the Chesapeake Bay watershed by signing Chesapeake 2000: A Watershed Partnership (“Chesapeake 2000”). This latest Chesapeake Bay Agreement was designed to build upon the accomplishments and commitments of the prior Bay Agreements and to guide the Bay Program partnership efforts through the year 2010.

Chesapeake 2000 sets forth the following five restoration goals: living resource protection and restoration; vital habitat protection and restoration; water quality protection and restoration; sound land use; and

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154 Id.
155 Id.
156 Chesapeake 2000, supra note 24; Chesapeake Bay Program, Overview of the Bay Program, at http://www.chesapeakebay.net/info/overview.cfm (last modified Mar. 14, 2001) [hereinafter Overview of the Bay Program].
157 Chesapeake 2000, supra note 24.
158 Id. at 2 (“Restore, enhance and protect fnfish, shellfish and other living resources, their habitats and ecological relationships to sustain fisheries and provide for a balanced ecosystem.”).
159 Id. at 4 (“Preserve, protect and restore those habitats and natural areas that are vital to the
stewardship and community engagement. To meet these ambitious goals, Chesapeake 2000 outlines over 110 commitments including, but not limited to: a tenfold increase in oysters from 1994 levels by 2010; goals for wetlands restoration and protection; thirty percent more public access points by 2010; a recommitment to increase SAV to 114,000 acres; enhanced protection for streams and rivers; redevelopment of 1,050 brownfield sites by 2010; expansion and linkage of contiguous forests through conservation easements; improve water quality sufficiently so that the Bay and its tributaries will be removed from EPA’s list of “impaired waters” by 2010; review of current tax policies to create tax incentives that encourage sound land use and eliminate elements that discourage sustainable development; continued reduction of the nutrient load of the Chesapeake Bay and the tidal portions of its tributaries; establishment of selected “no discharge zones” for boat waste; and a thirty percent reduction in the rate of conversion of forest and agricultural lands to development by 2012.

G. The 1998 Federal Agencies’ Chesapeake Ecosystem Unified Plan

In 1998, high-level federal officials from twenty federal agencies, departments, and services signed the Federal Agencies’ Chesapeake Ecosystem Unified Plan, outlining the specific goals and commitments of federal agencies on federal lands throughout the Chesapeake Bay watershed.

survival and diversity of the living resources of the Bay and its rivers.”).

160 Id. at 6 (“Achieve and maintain the water quality necessary to support the aquatic living resources of the Bay and its tributaries and to protect human health.”).

161 Id. at 8 (“Develop, promote and achieve sound land use practices which protect and restore watershed resources and water quality, maintain reduced pollutant loadings for the Bay and its tributaries, and restore and preserve aquatic living resources.”).

162 Id. at 11 (“Promote individual stewardship and assist individuals, community-based organizations, businesses, local governments and schools to undertake initiatives to achieve the goals and commitments of this agreement.”).

163 Chesapeake 2000, supra note 24.

164 Id.

165 Federal Agencies’ Chesapeake Ecosystem Unified Plan, supra note 25. The signatories to the FACEUP were EPA, United States Fish and Wildlife Service, United States Geological Survey, National Park Service, Defense Logistics Agency, United States Coast Guard, National Oceanic and Atmospheric Administration, Farm Service Agency, United States Forest Service, Natural Resources Conservation Service, General Services Administration, National Aeronautics and Space Administration, United States Postal Service, National Capital Planning Commission, Smithsonian Institution, and United States Departments of
FACEUP established a unified policy plan for federal agencies within the Chesapeake Bay watershed to implement the Clinton Administration's Clean Water Action Plan, to build upon the 1994 Agreement of Federal Agencies on Ecosystem Management in the Chesapeake Bay, and to meet the goals of the 1987 Chesapeake Bay Agreement, including its subsequent amendments and directives.

Designed to expand current federal facility restoration efforts, FACEUP "add[ed] 50 new commitments aimed at protecting the Chesapeake Bay watershed." These new commitments and initiatives address environmental issues such as monitoring and research, the reduction of harmful nutrients and pollution prevention, as well as creating renewed federal emphasis on land use, suburban growth and development, storm water management, wetlands restoration and human health protection.

Interior, Agriculture, Transportation, Defense, Navy, Army, and Air Force. Id.


167 On July 14, 1994, twenty-three federal agencies signed the Agreement of Federal Agencies on Ecosystem Management in the Chesapeake Bay, July 14, 1994, at http://www.chesapeakebay.net/pubs/subcommittee/fac/1994Agreement.pdf [hereinafter 1994 Agreement]. Formally increasing the role of federal agencies in the Chesapeake Bay Program, the 1994 Agreement provided a coordinated and cooperative framework for action with specific commitments to research and data coordination, protection and restoration of the Anacostia River, habitat restoration, nutrient and toxic pollution reduction, and the use for national service opportunities for work on federal lands. Additionally, the federal agency signatories adopted "a policy [to favor] the creation of forested buffers along streams, in order to help achieve both nutrient reduction and habitat restoration goals of the Chesapeake Bay Program... ."

Id.

168 Federal Agencies' Chesapeake Ecosystem Unified Plan, supra note 25.

169 THIRD BIENNIAL PROGRESS REPORT, supra note 26, at 3.

170 Federal agency FACEUP commitments include, but are not limited to, the following actions:

Support the restoration of the Bay's living resources and their habitats; . . . [i]dentify and implement new mechanisms to avoid land development
IV. CBRA FEDERAL AGENCY REQUIREMENTS

The CBRA amendments to CWA section 117(f) enacted new federal agency facility planning and restoration program participation, annual budget reporting, and agreement compliance requirements that present potentially significant administrative and legal implementation challenges. These challenges are determining the scope of required federal facility participation in regional and subwatershed planning and restoration programs, implementing budget reporting processes and the practical difficulties of discerning mandatory compliance requirements from existing “voluntary” cooperative agreements and plans. Other implementing challenges include CBRA’s unconstitutional delegation of Congressional federal legislative authority concerning agency compliance with future “agreements or plans” and the lack of EPA or state enforcement authority under CWA.

A. Regional and Subwatershed Planning and Restoration Participation

CWA section 117(f)(1), as amended, states that: “A Federal agency that owns or operates a facility (as defined by the Administrator) within the Chesapeake Bay watershed shall participate in regional and subwatershed planning and restoration programs.”

patterns that increase pollution . . .; [i]ntegrate smart growth principles into the development of Federal lands and facilities in the Bay region; [r]estore a net gain of 100 acres of wetlands annually on Federal lands beginning in 2000; [i]dentify additional blockages to migratory fish on Federal land by December 31, 1999, and open priority blockages to 50 miles of stream by December 31, 2003; [d]evelop by June 30, 1999, a mechanism to implement wet weather pollution prevention on Federal facilities in the Anacostia and Rock Creek watersheds; [i]mplement pollution prevention and related technologies to achieve a 75% voluntary reduction from a 1994 baseline in releases of Chesapeake Bay Toxics of Concern; [t]arget priority areas for exotic species control and specifically for nutria impacts on wetlands; [s]upport stream corridor protection and restoration, with a specific goal of restoring 200 miles of riparian forest buffers on Federal land by January 1, 2010; and [o]pen or enhance public access to 200 additional shoreline miles of the Bay by January 1, 2005.

Federal Agencies’ Chesapeake Ecosystem Unified Plan, supra note 25.

172 Id.
While this subsection mandates federal agency participation in both regional and subwatershed planning and restoration programs, the unresolved issue is the level of participation required.174 Neither CWA nor the CBRA amendments define the terms “participate” or “planning and restoration programs.”175 Absent statutory or regulatory guidance, the implementing agencies are left to their own discretion in determining the extent of their participation.

The mandatory participation requirement raises many concerns. First, inconsistent agency participation causes uncertainty and potential litigative exposure from non-governmental organizations (“NGOs”). Current federal facility planning and restoration options include participation in the Federal Agencies Committee176 and over 550 other regional and subwatershed conservation and restoration organizations.177 Excellent examples include the Anacostia Watershed Toxics Alliance178 and the Elizabeth River Project.179

Second, it is not clear whether “participation” in a planning or restoration program means that the agency meets minimal compliance requirements by having a representative simply attend one regional or subwatershed program meeting or whether it implies substantive or significant involvement. Mere participation in Bay watershed programs does not automatically translate into beneficial federal agency protection or restoration efforts or expenditures.

Third, the CBRA amendments do not remove other fiscal and legal impediments to agency protection and restoration efforts.180 Federal legal, fiscal, and policy constraints often restrict or prohibit the expenditure of federal agency-appropriated funds for Bay planning and restoration initia-

174 Id.
175 Id.
176 Responsible for representing federal policies in the Chesapeake Bay Program, the Federal Agencies Committee was established by the Chesapeake Bay Program in 1984 and is chaired by the Director of EPA’s Chesapeake Bay Program Office. For more information, visit Envtl. Prot. Agency, Chesapeake Bay Program Office, Federal Agencies Committee, at http://www.chesapeakebay.net/fac.htm (last visited Jan. 13, 2004).
177 A complete list of these 553 “watershed organizations” is available at Envtl. Prot. Agency, Chesapeake Bay Program Office, Chesapeake Bay Watershed Organizations, at http://www.chesapeakebay.net/wshed_directory.htm (last visited Jan. 13, 2004).
178 For more information, visit the Anacostia Watershed Toxics Alliance website, at http://www.chesapeakebay.net/awta/guide/home/awta.html (last visited Oct. 6, 2003).
179 For more information, visit the Elizabeth River Project website, at http://www.elizabethriver.org/ (last visited Sept. 1, 2003).
Bay grass or oyster bed restoration projects that improve state-owned subaqueous lands and resources are illustrative of programs with slight, if any, federal installation benefit. Given these restraints, federal agency representatives participating in regional and subwatershed planning and restoration programs have limited authority to institute, fund or otherwise support meaningful Bay programs. This will likely result in frustrated agency representatives and program stakeholders who interpret agencies' unwillingness to fully participate as federal indifference, or even worse, federal obstructionism.

Fourth, an equally important policy concern is the potential misuse of the mandatory participation requirement as separate statutory authority for EPA or the states to direct agency remediation actions independent of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") and the Resource Conservation Recovery Act ("RCRA") programs. To illustrate, EPA could arguably use CWA section 117(f)(1) authority to require participation in a local subwatershed restoration project. This participation requirement could, in turn, be used to "bootstrap" additional agency requirements for funding scientific studies, provision of personnel and resources, and ultimately, remediation of contaminated, off-installation toxic river settlement—all outside the CERCLA process.

Finally, in addition to assessing current or future program participation, agencies must reconsider the effect of the mandatory participation requirement section on agency funding priorities. This is especially true in measuring the risks of Bay Program Partner and NGO litigation.

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184 42 U.S.C. §§ 6901-6992. RCRA is also commonly known as the Solid Waste Act.
186 See id.
B. *Annual Budget Reporting*

CWA section 117(f)(3) provides, in relevant part, that:

As part of the annual budget submission of each Federal agency with projects or grants related to restoration, planning, monitoring, or scientific investigation of the Chesapeake Bay ecosystem, the head of the agency shall submit to the President a report that describes plans for the expenditure of the funds under this section.\(^{188}\)

A relatively non-controversial provision, CWA section 117(f)(3) sets an annual budget-reporting requirement on affected federal agencies.\(^{189}\) It is significant, however, that it does not require any additional expenditure of federal agency funds for beneficial Bay Program protection or restoration efforts.\(^{190}\) Instead, the provision merely requires an annual accounting of federal agency funds already being spent related to the Bay Program.\(^{191}\)

This annual budget-reporting requirement presents some federal agency implementation issues. On its face, the requirement only applies to those federal agencies with "projects or grants related to [Bay program] restoration, planning, monitoring, or scientific investigation . . . ."\(^{192}\) Because neither CWA nor CBRA offer a definition of these terms, it is within agency discretion to determine whether the agency funds Bay Program "projects or grants." While the word "grants" is straightforward, "projects" is problematic. One possible interpretation is that the affected agency's mere participation in Bay Program planning and restoration programs discussed above constitutes the requisite "project . . . related to restoration, planning, monitoring, or scientific investigation of the Chesapeake Bay ecosystem,"\(^{193}\) thereby triggering the provision's budget reporting requirement. Another reasonable agency interpretation would be to assume an intentional Congressional use of the word "project" to require agency projects to be defined as more than mere Bay protection or restoration program partic-

\(^{189}\) *Id.*
\(^{190}\) *Id.*
\(^{191}\) *Id.*
\(^{193}\) *Id.*
ipation. Some federal agencies may decide to limit the annual budget-reporting requirement solely to those federal agencies with separate line item Chesapeake Bay funding authorization and appropriations, such as EPA.

Additionally, federal agencies must determine how they will consistently and accurately account for all program environmental and facilities expenditures that indirectly constitute Chesapeake Bay "restoration, planning, monitoring, or scientific investigation" programs or efforts. Examples include Smart Growth development projects, storm water management programs, and institution of construction site best management practices, CWA section 402 National Pollutant Discharge Elimination System ("NPDES") permit issuing, Clean Air Act New Source Review, and introduction of alternatively fueled vehicle fleets. Absent consistent agency budget reporting procedures, the affected federal agencies may provide inaccurate annual budget reports, preventing Congress, EPA, the Bay Program Partners, NGOs, and the general public from accurately assessing federal agency efforts to protect and restore the Chesapeake Bay.

194 Id.

195 Smart Growth is community land use planning that encourages the balancing of development and environmental protection. For more information, visit EPA's Smart Growth website, at http://www.epa.gov/ebtpages/envismartgrowth.html (last modified Nov. 15, 2003).

196 Often containing pollutants in quantities that could adversely affect water quality, storm water is a discharge "generated by runoff from land and impervious areas such as paved streets, parking lots, and building rooftops during rainfall and snow events . . . ." For more information, visit the EPA Storm Water Program website, at http://cfpub2.epa.gov/npdes/home.cfm?program_id=6, (last modified June 26, 2002).

197 Best Management Practices ("BMPS") are practices "determined to be the most effective and practical [at] preventing or reducing pollution." For more information concerning BMPS, visit the EPA website, at http://www.epa.gov/ebtpages/pollbestmanagementpractices.html, (last modified Nov. 15, 2003).

198 The National Pollutant Discharge Elimination System ("NPDES") issues Clean Water Act permits to all wastewater dischargers and treatment facilities. For more information concerning EPA NPDES Program visit its website, at http://www.epa.gov/ebtpages/watewastenationalpollutantdischargeelim.html (last modified Nov. 16, 2003).

199 For more information concerning EPA's Clean Air Act New Source Review Program, visit its website, at http://www.epa.gov/ebtpages/airairpolnewsourcecureview.html (last modified Nov. 15, 2003).

200 Alternative fuels are fuels that "have particularly desirable energy efficiency and pollution reduction features. [They] include compressed natural gas, alcohols, liquefied petroleum gas (LPG), and electricity." For more information, visit EPA's Office of Transportation and Air Quality website, at http://www.epa.gov/otaq/oms-def.htm, (last modified Oct. 24, 2003).
C. *Agreement Compliance*

CWA Section 117(f)(2), as amended, provides:

The head of each Federal agency that owns or occupies real property in the Chesapeake Bay watershed shall ensure that the property, and actions taken by the agency with respect to the property, comply with the Chesapeake Bay Agreement, the Federal Agencies Chesapeake Ecosystem Unified Plan, and any subsequent agreements and plans.²⁰¹

By its terms, CWA section 117(f)(2), as amended, creates two separate requirements for affected federal agencies. They must comply with the existing Chesapeake Bay Agreement and Federal Agencies’ Chesapeake Ecosystem Unified Plan. They also must comply with all future agreements and plans.²⁰² Each of these requirements presents unique administrative and legal challenges for federal agencies. First, agencies have the practical difficulty of identifying and implementing retroactive mandatory compliance requirements from the existing agreements and plans originally negotiated as purely voluntary goals and initiatives. Second, the CWA section 117(f)(3) future agreement and plan compliance requirement creates an open-ended obligation and is constitutionally suspect as an improper Congressional delegation of federal legislative authority.²⁰³ Finally, federal facility compliance with CWA section 117(f) is unenforceable under either CWA’s enforcement or citizen suit provisions.²⁰⁴

1. Federal Agency Compliance with Existing Agreements and Plans

The first difficulty is discerning federal agency mandatory compliance requirements under the exiting Chesapeake Bay Agreement and the Federal Agencies’ Chesapeake Ecosystem Unified Plan.

a. Chesapeake Bay Agreement Compliance

The CBRA amendments define the term "Chesapeake Bay Agreement" as "the formal, voluntary agreements executed to achieve the goal of restoring and protecting the Chesapeake Bay ecosystem and the living resources of the Chesapeake Bay ecosystem and signed by the Chesapeake Executive Council." circularly, CBRA defines the "Chesapeake Executive Council" as "the signatories to the Chesapeake Bay Agreement." Assuming that Congress meant the signatories to the original 1983 Chesapeake Bay Agreement to comprise the Chesapeake Executive Council, the Council is comprised of the Governors of Virginia, Maryland, and Pennsylvania, the Mayor of the District of Columbia, the Administrator of EPA, and Chairman of the Chesapeake Bay Commission. Accordingly, the term "Chesapeake Bay Agreement," as used in CWA section 117(f)(2), as amended, should be read to encompass the entire Chesapeake Bay Agreement series (Chesapeake Bay Agreements and amendments) executed and implemented by the Chesapeake Executive Council. The extent of compliance by federal agencies with these Agreements, however, can only be defined by applying the rules of traditional contract construction.

The cardinal rule of construction as applied to contracts or other agreements is to ascertain the intention of the parties as expressed in the language used in the instrument itself. "If a contract is clear and unambiguous, [the court] must determine the intention of the parties 'solely from the plain language of the contract' and may not consider extrinsic evidence outside the 'four corners' of the document itself." Extrinsic or parole evidence is only admissible to clarify an ambiguity in a written contract. Accordingly, the

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205 CBRA, § 203, 114 Stat. at 1967 (codified at 33 U.S.C. § 1267(a)(2)).
207 1983 Chesapeake Bay Agreement, supra note 24.
209 Id.; Chesapeake 2000, supra note 24; 1992 Amendments, supra note 24; Chesapeake Bay Agreement, supra note 24.
212 Professor Wigmore explains the parole evidence rule: "When a jural act is embodied in a single memorial all other utterances of the parties on that topic are legally immaterial for the purpose of determining what are the terms of their act." 9 JOHN HENRY WIGMORE,
federal agencies’ specific mandatory obligations imposed under CWA section 117(f)(2), as amended, are expressed in the terms and conditions used within the “four corners” of the Chesapeake Bay Agreements.

A cursory review of the Chesapeake Bay Agreements immediately reveals two pragmatic challenges facing federal agencies. First, the agreements do not clearly and unambiguously define specific federal agency [other than EPA] Bay Program compliance requirements. This makes sense, because at the time of drafting, the signatory parties neither intended nor required non-signatory agency mandatory compliance. Drafted to memorialize cooperative, voluntary inter-governmental initiatives, the agreements address broad goals and voluntary commitments, making it difficult, if not impossible for agencies to accurately discern mandatory compliance terms and conditions.

Federal agencies attempting to comply with the Chesapeake Bay Agreements have two options. Applying a strict constructionist approach, affected federal agencies can acknowledge the mandatory nature of the agreements but argue that neither the original intent of the drafters nor the express terms and conditions of the documents themselves impose any affirmative compliance obligations on the agency or its affected watershed facilities.

The other option, one likely supported by EPA and other Bay Program partners, retroactively applies EPA’s broad federal government commitments as mandatory requirements for all federal agency watershed facilities. In an attempt to qualify, quantify and prioritize those requirements, EPA has recently promulgated its list of Chesapeake Bay Program Keystone Commitments. There are forty-five commitments listed, and among them are: “work[ing] with local governments, community groups and watershed

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6 ARTHUR LINTON CORBIN, CORBIN ON CONTRACTS § 573 at 72 (1960).
214 See sources cited supra note 213.
organizations to develop and implement locally supported watershed management plans in two-thirds of the Bay watershed" by 2010, "correct[ion] of nutrient—and sediment—related problems . . . sufficiently to remove the [Chesapeake] Bay and the tidal portions of its tributaries from list of impaired waters under the Clean Water Act" by 2010, "develop[ing] ecosystem-based multi-species management plans for targeted species" by 2005, and "[p]ermanently preserv[ing] from development 20 percent of the [watershed] land areas" by 2010.217

b. FACEUP Compliance

Similar problems exist in discerning agency compliance requirements regarding implementation of the 1998 Federal Agencies' Chesapeake Ecosystem Unified Plan.218 While drafted in voluntary and cooperative terms, the 1998 FACEUP assigns the participating federal agencies broad compliance "directives on [n]utrient [r]eduction, [h]abitat [r]estoration, [w]etlands, and [r]iparian [f]orest [b]uffers . . . ."219 In some cases, it assigns a specific federal agency with a lead role in developing or implementing its objectives.220 FACEUP, however, provides an important "escape hatch" by expressly conditioning agency compliance on "missions and our success in securing the necessary resources," a term undefined in the plan.221

For the original twenty signatory agencies, compliance implementation is less problematic since these agencies participated in the document drafting process and voluntarily assumed the plan's compliance obligations.222 More problematic is the application of FACEUP's mandatory terms and conditions to the remaining non-signatory agencies with Chesapeake Bay watershed facilities. As discussed above in the Chesapeake Bay Agreement context, these agencies must determine whether the lack of express agency compliance requirements within the language of FACEUP relieves them of compliance obligations.

217 Id. See also, Chesapeake Bay Agreements, supra notes 21, 24.
218 Federal Agencies' Chesapeake Ecosystem Unified Plan, supra note 25. Although undefined by either the CBRA amendments or the CWA, the term "Federal Agencies' Chesapeake Ecosystem Unified Plan" reasonably means the 1998 FACEUP.
219 Id. at 1.
220 Id.
221 Id.
222 Id.
It is therefore difficult to see how CWA section 117(f)(2) agreement compliance requirement fundamentally changes the federal agencies’ Bay Program landscape. While CBRA mandates agency compliance with both the Chesapeake Bay Agreements and FACEUP, express terms and conditions of both the agreements and the plan create no additional affirmative agency compliance obligations. Instead, by their express terms the agreements and the plans remain vague and overbroad and require, at most, only reasonable, good faith agency compliance efforts.

2. Compliance with Subsequent Agreements and Plans

Apart from creating an open-ended obligation for federal agencies, CWA section 117(f)(2) requirement of agency compliance with “any subsequent agreements and plans”\(^223\) raises some significant constitutional concerns.

Neither CBRA nor CWA define the phrase “subsequent agreements or plans.”\(^224\) While future agency compliance is limited to only “agreements” or “plans,” it is unclear whether Congress intended agency compliance with only future Chesapeake Bay Agreements and FACEUPs or with any generic Chesapeake Bay Program-related “agreements” or “plans.” Moreover, whether “subsequent” means those plans implemented subsequent to implementation of the Chesapeake Bay Agreements and FACEUP, or only those agreements and plans implemented subsequent to CBRA amendment enactment on November 7, 2000, remains ambiguous.

One interpretation, likely initially favored by the affected agencies, is that CWA section 117 compliance requirements only apply to those “agreements and plans” executed subsequent to the Chesapeake Bay Agreements and FACEUP but prior to enactment of the CBRA amendments on November 7, 2000, of which there were none.\(^225\) The other interpretation, likely to be advocated by the Chesapeake Bay Program partners and NGOs, is that CWA section 117 agreement compliance requirements apply to any “agreements or plans” executed and implemented subsequent to the enactment of CBRA. Assuming Congress intended agency facility compliance with all Chesapeake Bay Agreements enacted subsequently to CBRA’s enactment on November


\(^{225}\) See Chesapeake Bay Agreements cited supra notes 22, 24; Federal Agencies’ Chesapeake Ecosystem Unified Plan, supra note 25.
7, 2000, this provision may be invalid and unenforceable as an unconstitutional delegation of Federal Congressional legislative authority.\(^{226}\)

3. The Nondelegation Doctrine

Article I, Section 1 of the United States Constitution provides, in relevant part, that "[a]ll legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives."\(^{227}\) The Congress, in turn, is empowered "[t]o make all Laws which shall be necessary and proper for carrying into Execution" its general powers.\(^{228}\) From this language, the Supreme Court has derived the "nondelegation doctrine;" Congress is prohibited from abdicating, delegating, or transferring its essential legislative functions and powers to any person or entity outside the Legislative branch.\(^{229}\) Serving primarily as a judicial check on Congress' legislative authority, "[t]he nondelegation doctrine is rooted in the principle of separation of powers that underlies our tripartite system of Government."\(^{230}\)

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\(^{226}\) The separate issue of federal agency compliance with subsequent "plans" is even more problematic. Because neither the CBRA nor the CWA define the term "plans," Congressional intent is unclear. If Congress intended the term to include future Federal Agencies' Chesapeake Ecosystem Unified Plans or similar "plans," then only future FACEUPs would fall within the scope of CWA section 117(f)(2). Similar to the 1998 FACEUP analysis, there is no significant impact to the signatory federal agencies, departments and services—what they voluntarily assumed may be mandatory and enforceable. The unresolved issues are the chilling effect that CWA section 117(f)(2) may have on federal agencies participating, signing, and implementing future FACEUPs or similar agreements and—perhaps more importantly—the ability of future "plan" signatories and others to obligate non-signatory agencies under the provisions of CWA section 117(f)(2).

\(^{227}\) U.S. CONST. art. I, § 1.

\(^{228}\) U.S. CONST. art I, § 8, cl. 18.


The Supreme Court first recognized the non-delegation doctrine in 1813 in *The Cargo of the Brig Aurora v. United States.* In Aurora, the Supreme Court considered, and ultimately rejected, a challenge to a congressional act renewing trade with France or Great Britain that took effect upon the President’s declaration that either country had “cease[d] to violate the neutral commerce of the United States.” Distinguishing between a full delegation and a conditional grant of legislative authority, the Aurora court upheld the act because Congress provided sufficiently clear, restrictive standards limiting the scope of the President’s granted authority.

Following Aurora, the Supreme Court consistently rejected non-delegation doctrine challenges to Congressional legislation by asserting that legislative authority often sufficiently restricted the scope of Presidential authority or Congress had not delegated its legislative power. Two excellent examples are *Field v. Clark* and *United States v. Grimaud.* In Field, the Supreme Court upheld a congressional delegation allowing the imposition of a retaliatory tax upon a Presidential determination that other nations had imposed “reciprocally unequal and unreasonable” taxes on American products sold abroad. In Grimaud, the Supreme Court found that Congress did not delegate its legislative authority, but merely the “power to fill up the details,” in its grant to the Secretary of Agriculture to “make provision for the protection against destruction and deprivations upon the public forests.”

4. The Intelligible Principle Requirement

Despite the Nondelegation Doctrine, the Supreme Court has long recognized that “Congress does not violate the Constitution merely because it legislates in broad terms, leaving a certain degree of discretion to executive

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231 11 U.S. (7 Cranch) 382 (1813).
233 *The Brig Aurora*, 11 U.S. (7 Cranch) at 387.
235 *Field*, 143 U.S. at 680; see Bergin, supra note 232, at 367.
237 Bergin, supra note 232, at 367.
or judicial actors." As Chief Justice Hughes stated, writing for the majority, in *Panama Refining Co. v. Ryan*:

Undoubtedly legislation must often be adapted to complex conditions involving a host of details with which the national legislature cannot deal directly. The Constitution has never been regarded as denying to the Congress the necessary resources of flexibility and practicality, which will enable it to perform its function in laying down policies and establishing standards, while leaving to selected instrumentalities the making of subordinate rules within prescribed limits and the determination of facts to which the policy as declared by the legislature is to apply.  

As the Court notes in *Mistretta*, the nondelegation doctrine is "driven by a practical understanding that in our increasingly complex society, replete with ever changing and more technical problems, Congress simply cannot do its job absent an ability to delegate power under broad general directives."  

So long as Congress "lay[s] down by legislative act an intelligible principle to which the person or body authorized to [act] . . . is directed to conform, such legislative action is not a forbidden delegation of legislative power." The Supreme Court's intelligible principle rule seeks to enforce the understanding that Congress may not delegate the power to make laws and may delegate no more than the authority to make polices and rules that implement existing statutes. A Congressional delegation thus provides the necessary "intelligible principle" if "Congress clearly delineates the general policy, the public agency which is to apply it, and the boundaries of this delegated authority."

Only if we could say that there is an absence of standards for the guidance of the [agency's] action, so that it would be

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239 Panama Refining Co. v. Ryan, 293 U.S. 388, 421 (1934).  
242 Field v. Clark, 143 U.S. 649, 693 (1892).  
243 Mistretta, 488 U.S. at 372-73 (quoting American Power & Light Co. v. SEC, 329 U.S. 90, 105 (1946)).
impossible in a proper proceeding to ascertain whether the will of Congress has been obeyed, would we be justified in overriding its choice of means for effecting its declared purpose ....

Accordingly, when Congress confers decision-making authority upon agencies, Congress must "lay down by legislative act an intelligible principle to which the person or body authorized to [act] is directed to conform." While the Supreme Court has "almost never felt qualified to second-guess Congress regarding the permissible degree of policy judgment that can be left to those executing or applying the law," the degree of agency discretion that is acceptable varies according to the scope of the power congressionally conferred. The Supreme Court has found the requisite "intelligible principle" lacking in only two statutory delegations. Since 1935, the Supreme Court has not invalidated a statutory grant of authority to an executive agency on delegation grounds. Instead, the Supreme Court has consistently upheld Congressional delegations under standards that were often phrased in sweeping terms.

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244 Id. at 379 (quoting Yakus v. United States, 321 U.S. 414, 425-26 (1944)).
246 Id. at 474-75 (quoting Mistretta, 488 U.S. at 416 (Scalia, J., dissenting)).
247 Id. at 475 (citing Loving v. United States, 517 U.S. 748, 772-73 (1996); United States v. Mazurie, 419 U.S. 544, 556-57 (1975)) ("While Congress need not provide any direction to the EPA regarding the manner in which it is to define 'country elevators,' ... it must provide substantial guidance on setting air standards that affect the entire national economy.").
248 See generally A.L.A. Schechter Poultry Corp. v. United States, 295 U.S. 495, 495 (1935) (statute conferred congressional authority to regulate the entire economy on the basis of a standard no more precise than that the economy should be stimulated by assuring "fair competition"); Panama Refining Co. v. Ryan, 293 U.S. 388, 421 (1934) (ruling that statute provided literally no guidance for the exercise of discretion).
249 Whitman, 531 U.S. at 483 (citing A.L.A. Schechter Poultry Corp., 295 U.S. at 495; Panama Refining Co., 293 U.S. at 388).
250 Id. at 457 (upholding EPA air quality regulations at a level "requisite to protect the public health" with "an adequate margin of safety"); Touby v. United States, 500 U.S. 160, 163 (1991) (upholding authority of the Attorney General to designate a drug as a controlled substance for the purposes of drug enforcement "when doing so is necessary to avoid an imminent hazard to the public safety"); Lichter v. United States, 334 U.S. 742 (1948) (holding the War Department could recover "excessive profits" earned on military contracts); Am. Power & Light Co. v. SEC, 329 U.S. 90, 104 (1946) (upholding SEC authority to modify the structures of holding company systems so as to ensure they are not "unduly or
5. CWA Section 117(f)(3) Nondelegation Analysis

The starting point for Nondelegation Doctrine analysis of any statute is its language, purpose and context. The text of CBRA’s CWA section 117(f)(2) instructs the heads of Federal agencies owning or occupying facilities within the Chesapeake Bay watershed to “comply with . . . any subsequent agreements and plans.” To the extent that CWA section 117(f)(2), as amended, requires agency compliance with Chesapeake Bay Agreements executed and implemented subsequent to CBRA enactment on November 7, 2000, the provision violates the federal Nondelegation Doctrine on several grounds.

First, by defining “Chesapeake Bay Agreement” as any formal agreement executed by the signatories to the original 1983 Chesapeake Bay Agreement, CWA section 117(f)(3), as amended, purports to confer full congressional, federal legislative authority to a non-executive entity: the Chesapeake Executive Council. Taken to its logical conclusion, CWA section 117(f)(2) imposes a statutory obligation on federal agencies to comply with the obligations imposed by any future agreement implemented by the Chesapeake Executive Council. The Executive Council is a quasi-governmental, quasi-private entity comprised of the Governors of the Bay states, the Mayor of the District of Columbia, the Administrator of EPA, and Chairman

unnecessarily complicate[d]” and do not “unfairly or inequitably distribute voting power among security holders”); Fed. Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591, 600-01 (1944) (determination of “just and reasonable” rate”); Yakus v. United States, 321 U.S. 414, 420, 423-26 (1944) (upholding the wartime conferment of agency power to the Price Administrator to fix the prices of commodities at a level that “in his judgment will be generally fair and equitable and will effectuate the purposes of this Act”); National Broadcasting Co. v. United States, 319 U.S. 190, 194 (1943) (upholding delegation to the Federal Communications Commission to regulate radio broadcasting according to “public interest, convenience, or necessity”); New York Cent. Sec. Corp. v. United States, 287 U.S. 12, 25 (1932) (upholding Interstate Commerce Commission’s power to approve railroad consolidations according to “public interest”); see also Milk Indus. Found. v. Glickman, 132 F.3d 1467, 1475 (D.C. Cir. 1998) (sustaining delegation based on findings of “compelling public interest”); Humphrey v. Baker, 848 F.2d 211, 217 (D.C. Cir. 1988) (“Only the most extravagant delegations of authority, those providing no standards to constrain administrative discretion, have been condemned by the Supreme Court as unconstitutional.”).

253 See CWA § 117(f)(3); 33 U.S.C. § 1267(f)(3).
of the Chesapeake Bay Commission.\textsuperscript{254} The non-delegation doctrine prohibits Congress from abdicating, delegating, or transferring essential federal legislative functions and powers to any person or entity outside the legislative or executive branches.\textsuperscript{255} The Chesapeake Executive Council (despite EPA membership) is neither an executive nor a legislative agency of the federal government.\textsuperscript{256} Section 117(f)(2)’s purported delegation falls well outside the limits of Supreme Court precedent that allows authorizing sweeping delegations of Congressional authority, but only to federal executive branch, administrative agencies, or similar bodies.\textsuperscript{257}

Secondly, even assuming a proper delegation of Congressional legislative authority to the Chesapeake Executive Council, CWA section 117(f)(2), as amended, fails to provide the requisite “intelligible principle” to guide the proper exercise of that authority.\textsuperscript{258} In fact, CBRA and CWA provide no guidance to the Chesapeake Executive Council in the exercise of its discretion for implementing subsequent agreements.\textsuperscript{259} It is seemingly empowered to do anything, in its own judgment, which supports the Chesapeake Bay Program—including providing unchecked access to federal agency personnel, funds, and resources. Absent any clear statutory restrictive standards, the Chesapeake Executive Council appears to have received an unlimited delegation of Congressional legislative authority.

In times of reduced EPA and state budgets and increased Bay Program protection and restoration commitments,\textsuperscript{260} CWA section 117(f)(3) requirement for mandatory agency compliance with subsequent Chesapeake Bay Agreements makes it tempting for the Chesapeake Executive Council partners to turn to non-participatory Federal agencies for funding. This could be accomplished easily through drafting, executing, and implementing future Chesapeake Bay Agreements. Ideally, these would shift existing program requirements to, or create new, more aggressive obligations for federal agencies, which are not currently Congressionally obligated, funded or staffed

\textsuperscript{254} 1983 Chesapeake Bay Agreement, \textit{supra} note 21.
\textsuperscript{255} \textit{See supra} notes 234-36 and accompanying text.
\textsuperscript{256} \textit{Chesapeake Executive Council, supra} note 23.
\textsuperscript{257} \textit{See supra} note 229.
\textsuperscript{258} \textit{See supra} note 241 and accompanying text.
for these requirements. Accordingly, CBRA's CWA section 117(f)(3) require-
ment for agency compliance with any agreements executed by the
Chesapeake Executive Council after CBRA enactment on November 5, 2000,
may be unenforceable as a violation of the federal non-delegation doctrine. 261

D. Enforcement

Finally, and perhaps the most perplexing, is CBRA's failure to amend
the Clean Water Act's enforcement262 or citizen suit263 provisions to ensure
federal agency compliance. By their express terms, neither CWA section 309
nor CWA section 505 options are available for alleged agency violations of
CWA sections 117(f)(1)-(3). Absent CWA enforcement options, federal
agency non-compliance is only subject to judicial review under the
Administrative Procedure Act ("APA")—a remedy unavailable to EPA but
available to the Bay Program partners and various NGOs seeking federal
agency compliance enforcement.264 This removes several significant potential

261 For a discussion of the federal non-delegation doctrine, see Laura Suzanne Farris,
Comment, Private Jails in Oklahoma: An Unconstitutional Delegation of Legislative
262 Under CWA section 309 (33 U.S.C. § 1319), the enforcement provision, compliance
orders or notices of violation, administrative penalties, civil actions and criminal penalties
are expressly limited to violations of the following sections: CWA § 301 (33 U.S.C. § 1311)
("[e]ffluent limitations"); CWA § 302 (33 U.S.C. § 1312) ("[w]ater quality related effluent
§ 307 (33 U.S.C. § 1317) ("[t]oxic and pretreatment effluent standards"); CWA § 308 (33
("[a]quaculture"); or CWA § 405 (33 U.S.C. § 1345) ("[d]isposal or use of sewage sludge");
or any permit condition or limitation implementing these sections issued under CWA § 402
(33 U.S.C. § 1342) ("[n]ational pollution discharge elimination system"); or any requirement
imposed in an approved pretreatment program under CWA § 402(a)(3) (33 U.S.C. §
1342(a)(3)) or CWA § 402(b)(8) (33 U.S.C. § 1342(b)(8)) (pretreatment standards), or in
a permit issued under CWA § 404 (33 U.S.C. § 1344) ("[p]ermits for dredged or fill
material"). CWA § 309(a)-(d), (g) (33 U.S.C. § 1319(a)-(d),(g)).
263 While authorizing citizen suits in federal courts, by any citizen "having an interest which
is or may be adversely affected," CWA section 505 expressly limits these actions to enforce-
ment of permit conditions, effluent limitations, water quality standards or related compliance
orders, or against the EPA Administrator for an alleged failure to perform non-discretionary
264 Administrative Procedure Act, 5 U.S.C. §§ 551-559; 701-706 (2000). In performing such
a review, "[t]he reviewing court shall... hold unlawful and set aside agency action, findings,
and conclusions found to be... arbitrary, capricious, an abuse of discretion, or otherwise not
EPA and state enforcement tools granting federal agencies wider discretionary compliance options.

V. CONCLUSION

CBRA federal agency participation, budget reporting and agreement compliance requirements are unlikely to fulfill the stated Congressional purpose of both “expand[ing] and strengthen[ing] [agency] cooperative efforts to restore and protect the Bay” and “achiev[ing] the goals” of the Chesapeake Bay Program. The ultimate effectiveness of the amended CWA section 117(f) requirements will likely be limited in scope and impact for several reasons.

A. Regional and Subwatershed Planning and Restoration Programs

CBRA fails to provide agencies with sufficient guidance regarding the extent of required participation in Bay regional and subwatershed planning or restoration programs. Federal agency participation alone does not ensure agency implementation of beneficial Chesapeake Bay ecosystem protection


arbitrary, capricious, an abuse of discretion . . . if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.


or restoration projects. Federal agencies must independently discern the scope of current and expected participation in Bay program planning and restoration efforts and balance the extent of that participation against fiscal and other legal or policy restraints. This leaves agency facility representatives ensuring only minimal compliance by merely attending planning and restoration program meetings but not committing to viable Bay restoration and protection efforts.

B. Annual Budget Reporting

To implement the CBRA annual budget reporting requirement, federal agencies must determine requirement applicability and establish consistent reporting processes. Absent effective implementation guidance, inconsistent project and grant determination, accounting, and budget reporting procedures may be created. This will impede and complicate efforts by EPA, Bay Program partners, NGOs, and taxpayer efforts to accurately assess federal Bay Program protection and restoration efforts.

Even assuming an accurate, consistent, and comprehensive federal agency accounting and reporting process, the agency annual budget reporting requirement, in and of itself, will have no environmentally beneficial impact on the Chesapeake Bay ecosystem. As enacted, the requirement does not require the expenditure of additional agency funds on Bay restoration programs—only the separate reporting of funds spent on other environmental programs.

C. Agreement Compliance

The CBRA requirement for federal agency compliance with existing Chesapeake Bay Agreements and FACEUP adds no new Bay restoration or protection benefits. By its terms, the Chesapeake Bay Agreements impose no legally binding obligations on federal agencies other than EPA. To the extent that FACEUP places original and retroactive obligations on other federal agency facilities, these commitments are subject to nearly unlimited agency discretion to limit agency compliance requirements based on determinations of compatibility with other mission requirements and funding priorities.
The CBRA amendment’s federal agency requirement of mandatory compliance with “any subsequent agreements and plans”\textsuperscript{266} will also likely be ineffective for several reasons. One problem is the difficulty federal agencies will face in attempting to plan, budget, and manage unknown and open-ended future Bay program commitments. Another insurmountable problem is the constitutional implications of the CBRA’s attempted delegation of Congressional legislative authority to the non-federal members of the Chesapeake Executive Council.

D. \textit{Enforcement}

Congress’ failure to amend the Clean Water Act’s enforcement and citizen suit provisions denies EPA and NGOs authority to enforce the section 117(f) agency requirements and significantly undermines the CBRA amendment’s ultimate effectiveness.

E. \textit{Reducing Chesapeake Bay Program Effectiveness}

From a public policy perspective, not only will the CBRA amendments fail to expand and strengthen federal agency efforts to restore and protect the Chesapeake Bay, they will likely have the unintended effect of actually reducing the overall effectiveness of the Chesapeake Bay Program.

By mandating statutory agency compliance, Congress changed the fundamental nature of the Chesapeake Bay Program and created an inherent conflict between federal agencies and the non-federal Bay Program partners. No longer participating as equals in a voluntary cooperative effort, federal agencies must now deal with the Chesapeake Executive Council members and all other interested stakeholder non-governmental organizations as potential litigation adversaries. Faced with reduced budgets, increased mission requirements and the threat of state and NGO compliance enforcement litigation, affected agencies will likely drive themselves into conservative minimal compliance status. The injection of agency attorneys and fiscal managers into the process will result in delay and reduction in facility protection and restoration efforts. On a larger scale, federal agencies in the future will be hesitant or unwilling to fund or participate in future

environmentally beneficial initiatives or similar cooperative "partnering" for fear that those efforts will also become retroactively binding.

This inter-governmental conflict is best illustrated in current Bay Program discussions. Several important Bay Program issues are approaching critical mass. First, it is unclear whether the Bay Program will meet its Chesapeake 2000 goals for restoring the Chesapeake Bay by the year 2010. Second, the cost for attaining the 2010 goals is over $19 billion, which is nearly triple the original estimate. Third, all of the Chesapeake Executive Council member states are facing significant state budget deficits and resultant reductions in Bay program funding. For example, the Chairman of the Chesapeake Executive Council, Governor Mark Warner of Virginia, recently removed $2 million in state Chesapeake Bay program funding as part of an overall $858 million in budget cuts to address a projected $1.5 billion state budget deficit.

The decline in state Chesapeake Bay Program funding and the inability to meet projected 2010 deadline restoration goals will converge to increase political pressure for additional Federal Bay Program funding and restoration efforts. After announcing Virginia's Chesapeake Bay Program budget cuts, Governor Mark Warner replied that "I think, clearly, the national government is going to have to step up to the plate in a big way . . . [t]his has got to become a national priority, elevated to the same stature as saving the Everglades." Relying on CWA section 117(f)(3) authority, the Chesapeake Executive Council will be tempted to shift an increasing amount of Bay Program protection and restoration requirements onto affected federal agencies in future Chesapeake Bay Agreements. EPA will likely not oppose any attempt to shift its responsibility to other federal agencies because of its desire to protect its own budget. Any attempt by the Chesapeake Executive Council to use future Chesapeake Bay Agreements or similar agreements or plans to create additional federal agency Bay Program requirements that require the expenditure of agency funds, resources, or personnel is likely to

267 Harper, supra note 260.
268 Id.
269 Id.
270 Id.
be aggressively resisted or simply ignored by the affected agencies as an impermissible encroachment on discretionary executive branch functions. The Chesapeake Executive Council members—other than EPA—and relevant stakeholder NGOs will be left with only potential APA enforcement options.

Not only will CBRA section 117(f) requirements fail to both expand and strengthen agency efforts to restore and protect the Chesapeake Bay, the imposition of mandatory requirements will, in the long run, effectively undermine the original cooperative working relationship of the Bay Program partners. This will result in potential litigation, and ultimately reduce the overall effectiveness of the entire Chesapeake Bay Program.

F. Recommended Course for Federal Agencies

Absent implementing regulations or Chesapeake Bay Program policy guidance, affected federal agencies must re-assess their Bay Program efforts and implement effective, consistent compliance guidance. The following federal agency policy implementation guidance is recommended:

1. Continue or institute facility participation in, cooperation with, and funding for regional and subwatershed Chesapeake Bay planning and restoration programs, consistent with other agency policy, mission, and funding requirements. This participation can include, but should not be limited to, active membership on the CBP Federal Advisory Committee, DOD Quality Management Board, and Chesapeake Bay Commission meetings, as well as local workgroups, strategy teams and tributary restoration programs;

2. Comply to the maximum extent practicable, consistent with agency policy guidance, mission requirements, and funding success, with the express terms and conditions of the Chesapeake Bay Agreement series and 1998 FACEUP in existence on or before November 5, 2000. Agency or facility Bay program efforts and funding priorities should be guided by EPA’s list of Keystone Commitments;

3. Absent express agency direction to the contrary, facilities should not comply with Chesapeake Bay Agreements or any other “agreements” or “plans” executed and implemented without agency participation after November 5, 2000 purporting to obligate agency personnel, resources, or funding;

4. Submit all Chesapeake Bay Agreement, FACEUP, regional and subwatershed planning and restoration requirements as Level 1 environmental compliance funding priorities;
5. Implement agency definition of Chesapeake Bay Program "projects" and institute consistent annual budget reporting procedures and policies for Bay Program expenditures at all facilities;

6. Ensure adequate agency Bay program legal review and litigative risk analysis.