University of Richmond Law Review

Volume 42
Issue 2 *Annual Survey 2007*

Article 11

11-1-2007

Environmental Law

Brooks Meredith Smith
Hunton & Williams, L.L.P.

Andrea West Wortzel
Hunton & Williams, L.L.P.

ENVIRONMENTAL LAW

Brooks Meredith Smith *
Andrea West Wortzel **

I. INTRODUCTION

Virginia boasts a remarkable natural environment, cherished by its people, protected by its constitution, and championed by its government.[1] Environmental stewardship has become increasingly complicated over the past few years, as science and policy jockey for the lead position in our decision-making process.

This survey covers a particularly fecund period in environmental law, with bold new initiatives at the state level, surprising case law developments, and extensive regulatory action. It signals a trend that is not likely to let up any time soon.

The sections that follow are organized by environmental media and process. Within these sections, we have endeavored to explain the key developments in the law, highlighting both gaps and interrelationships.

---

* Hunton & Williams LLP; B.A., 1992, University of Richmond; J.D., 1996, Vermont Law School.

** Hunton & Williams LLP; B.A., 1991, College of William & Mary; J.D., 1996, University of Richmond School of Law.

1. *See* VA. CONST. art. XI, § 1 ("To the end that the people have clean air, pure water, and the use and enjoyment for recreation of adequate public lands, waters, and other natural resources, it shall be the policy of the Commonwealth to conserve, develop, and utilize its natural resources, its public lands, and its historical sites and buildings. Further, it shall be the Commonwealth's policy to protect its atmosphere, lands, and waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth.").

II. WATER QUALITY

A. *Chesapeake Bay*

Over the past two and a half decades, various reports on the decline of the Chesapeake Bay have galvanized public attention over the need for significant nutrient reductions.[2] Within the past three years, Virginia has implemented a suite of new laws, regulations, and permit programs to address this need.

Drawing from recommendations made by Region 3 of the United States Environmental Protection Agency ("EPA") in April 2003, the State Water Control Board ("SWCB") adopted new nutrient water quality standards for Virginia's portion of the Chesapeake Bay, including its tidal tributaries (the Potomac, Shenandoah, Rappahannock, York, and James Rivers).[3] These standards include revised dissolved oxygen criteria, as well as new water clarity and chlorophyll-a criteria.[4]

Applying these new nutrient water quality standards, the SWCB established discharge loading caps for approximately 125 "significant dischargers" within the watershed.[5] These loading

---

2. *See, e.g.*, 1983 Chesapeake Bay Agreement, http://www.chesapeakebay.net/pubs/1983ChesapeakeBayAgreement.pdf; 1987 Chesapeake Bay Agreement, http://www.chesapeakebay.net/pubs/1987ChesapeakeBayAgreement.pdf; 2000 Chesapeake Bay Agreement, http://www.chesapeakebay.net/agreement.htm.

3. EPA Region III's recommendations are set forth in U.S. ENVTL. PROT. AGENCY, REGION III, AMBIENT WATER QUALITY CRITERIA FOR DISSOLVED OXYGEN, WATER CLARITY AND CHLOROPHYLL *A* FOR THE CHESAPEAKE BAY AND ITS TIDAL TRIBUTARIES (2003), *available at* http://www.epa.gov/region03/chesapeake/baycriteria.htm. The SWCB's nutrient water quality standards for Virginia's portion of the Chesapeake Bay are codified at 9 VA. ADMIN. CODE § 25-260-185 (2007).

4. EPA Region 3 proposed narrative criteria for chlorophyll-a. However, the SWCB ultimately adopted special numeric criteria for chlorophyll-a in the James River in order to address localized water quality conditions. *See* 9 VA. ADMIN. CODE § 25-260-310(bb) (2007).

5. "Significant discharger" is defined to mean:

> (i) a sewage treatment works discharging to the Chesapeake Bay watershed upstream of the fall line with a design capacity of 0.5 million gallons per day or greater, or an equivalent load discharged from industrial facilities; (ii) a sewage treatment works discharging to the Chesapeake Bay watershed downstream of the fall line with a design capacity of 0.1 million gallons per day or greater, or an equivalent load discharged from industrial facilities; (iii) a planned or newly expanding sewage treatment works discharging to the Chesapeake Bay watershed upstream of the fall line that is expected to be in operation by December 31, 2010, with a permitted design of 0.5 million gallons per day or greater, or an equivalent load to be discharged from industrial facilities; or (iv) a planned or newly expanding sewage treatment works dis-

caps, or wasteload allocations, are codified in Virginia's Water Quality Management Planning Regulation.[6]

Recognizing the opportunity for innovative implementation of these loading caps, the General Assembly interceded in the regulatory process in 2005 and enacted the Nutrient Credit Exchange Law (the "Exchange Law").[7] The Exchange Law calls for the creation of a new watershed general permit program to serve as a vehicle for implementation of the loading caps.[8] It also creates a mechanism for the exchange of credits between permittees in order to achieve compliance or offset additional loading created by new or expanding facilities.[9]

At the General Assembly's instruction, the SWCB established this new watershed general permit, which took effect on January 1, 2007.[10] This permit imposes a default deadline of January 1, 2011 for compliance with each tributary's aggregate loading cap.[11]

Public funding is a key counterpart to these new restrictions on dischargers, particularly publicly owned treatment works. The Virginia Water Quality Improvement Fund ("WQIF") has remained the central repository for Bay-related funding since it was established in 1997. In 2006, the General Assembly amended the WQIF guidelines governing the distribution of grants for water quality improvement projects.[12] In 2007, the General Assembly again amended these guidelines.[13] Significant funds have been

---

> charging to the Chesapeake Bay watershed downstream of the fall line that is expected to be in operation by December 31, 2010, with a design capacity of 0.1 million gallons per day or greater, or an equivalent load to be discharged from industrial facilities.

9 VA. ADMIN. CODE § 25-820-10 (2007). The Virginia Department of Environmental Quality ("DEQ") initially identified approximately 125 facilities that met this definition. DEQ maintains current registration lists for each tributary, accessible at http://www.deq.state.va.us/vpdes/.

6. 9 VA. ADMIN. CODE §§ 25-720-40, -50(C), -60(C), -70(C), -110(C), -120(C) (2007).

7. Act of Mar. 24, 2005, ch. 710, 2005 Va. Acts 1037 (codified as amended at VA. CODE ANN. §§ 62.1-44.19:12 to :19 (Repl. Vol. 2006 & Supp. 2007)).

8. VA. CODE ANN. § 62.1-44.19:14 (Repl. Vol. 2006).

9. *Id.* § 62.1-44.19:18.

10. *See* 9 VA. ADMIN. CODE §§ 25-820-10 to -70 (2007).

11. *Id.* § 25-820-70(C)(1)(a).

12. Act of Mar. 24, 2006, ch. 236, 2006 Va. Acts 272 (codified as amended at VA. CODE ANN. §§ 10.1-2117, -2128, -2129, -2131 (Repl. Vol. 2006 & Supp. 2007)).

13. Act of Apr. 4, 2007, ch. 851, 2007 Va. Acts 2318 (codified at VA. CODE ANN. § 10.1-1186.01 (Supp. 2007)).

appropriated for the WQIF during each of the past two General Assembly sessions.[14]

B. *Impaired Waters*

1. Virginia's § 303(d) List

Virginia is required to submit its list of "impaired waters" (i.e., those identified as not meeting applicable water quality standards) to EPA for review and approval every two years.[15] Virginia submitted its most recent list on July 11, 2006, and EPA approved it on October 16, 2006.[16] The list identifies approximately 9,000 miles of rivers and streams, 109,200 acres of lakes and reservoirs, and 2,200 square miles of estuaries as impaired.[17]

2. Impaired Waters Clean-up Plan

Recognizing the technical and financial burden associated with the cleanup of Virginia's impaired waters, the General Assembly enacted the Chesapeake Bay and Virginia Waters Clean-up and Oversight Act in 2006 (the "Oversight Act").[18] The Oversight Act requires the Virginia Secretary of Natural Resources to develop and periodically revise an impaired waters clean-up plan.[19] This plan must address both point and nonpoint sources of pollution and must include:

> (1) Measurable and attainable objectives for cleaning up the Chesapeake Bay and other impaired Virginia waters;
>
> (2) A description of the strategies to be implemented to meet specific and attainable objectives outlined in the plan;

---

14. For the 2006–07 Biennium, the General Assembly appropriated $212.8 million for nutrient reduction projects within the Chesapeake Bay. *See* Va. Dep't of Envtl. Quality, Water Quality Improvement Fund, FY 2006–07 Biennium Appropriation, http://www.deq.virginia.gov/bay/wqif.html (last visited Oct. 11, 2007).

15. *See* 40 C.F.R. § 130.7(d) (2006).

16. Va. Dep't of Envtl. Quality, 2006 Water Quality Assessment and Impaired Waters, http://www.deq.state.va.us/wqa/ir2006.html (last visited Oct. 11, 2007).

17. *See* VA. DEP'T OF ENVTL. QUALITY, WATER QUALITY ASSESSMENT: 305(b)/303(d) INTEGRATED REPORT 3.3a-1 to 3.3d-10 (2006), *available at* http://www.deq.state.va.us/wqa/pdf/2006ir/2006irdoc/ir06_Full_Document.pdf.

18. Act of Mar. 24, 2006, ch. 204, 2006 Va. Acts 232 (codified as amended at VA. CODE ANN. §§ 62.1-44.117, -118 (Repl. Vol. 2006 & Supp. 2007)).

19. VA. CODE ANN. § 62.1-44.117(A) (Repl. Vol. 2006).

> (3) Time frames or phasing to accomplish plan objectives and the expected dates of completion;
>
> (4) A clearly defined, prioritized, and sufficiently funded program of work within the plan both for point and nonpoint source clean-up projects;
>
> (5) A disbursement projection plan detailing the expenditures for point and nonpoint projects and whenever possible, a listing of the specific projects to which the funds are to be allocated;
>
> (6) Potential problem areas where delays in the implementation of the plan may occur;
>
> (7) A risk mitigation strategy designed to reduce the potential problems that might delay plan implementation;
>
> (8) A description of the extent of coordination between state and local governments in developing and achieving the plan's objectives;
>
> (9) Assessments of alternative funding mechanisms, that shall include but not be limited to the feasibility of utilizing the Virginia Resources Authority, that would address the needs of the Commonwealth to handle and appropriate state funds prudently and efficiently and address the needs of localities to achieve their goals in a timely and affordable manner; and
>
> (10) Recommendations to the oversight committees in the General Assembly for legislative action.[20]

The first impaired waters clean-up plan was submitted in January 2007 to the House Committee on Agriculture, Chesapeake and Natural Resources; the House Committee on Appropriations; the Senate Committee on Agriculture, Conservation and Natural Resources; and the Senate Committee on Finance.[21] Progress reports are due semiannually thereafter.[22]

3. Total Maximum Daily Loads

Virginia's impairment listings trigger the need for "total maximum daily loads" ("TMDLs"), which establish the maximum amount of pollution a water segment can assimilate and still attain water quality standards.[23] The federal Clean Water Act does not address implementation of TMDLs, but Virginia law does.[24]

---

20. *Id.* § 62.1-44.117(B) (Repl. Vol. 2006).

21. L. PRESTON BRYANT, JR., VA. SEC'Y OF NATURAL RES., CHESAPEAKE BAY AND VIRGINIA WATERS CLEAN-UP PLAN (2007), *available at* http://www.naturalresources.virginia.gov/Initiatives/WaterCleanupPlan/docs/ChesBayVaWatersCleanupPlan0107.pdf.

22. VA. CODE ANN. § 62.1-44.118 (Supp. 2007).

23. *See* 33 U.S.C. § 1313(d)(1)(C) (2000).

24. *Compare id., and* 40 C.F.R. pt. 130 (2006), *with* VA. CODE ANN. § 62.1-44.19:7

Under the Water Quality Monitoring, Information and Restoration Act, the SWCB is required to:

> develop and implement a plan to achieve fully supporting status for impaired waters . . . [including] the date of expected achievement of water quality objectives, measurable goals, the corrective actions necessary, and the associated costs, benefits and environmental impact of addressing impairment and the expeditious development and implementation of total maximum daily loads. . . .[25]

The current pace of TMDL development in Virginia is dictated by a consent decree in the *American Canoe Ass'n* case.[26] The SWCB has been on pace to date and projects being on pace through 2010.[27] However, developments at the federal level may complicate the SWCB's efforts. Historically, many TMDLs in Virginia have been established using annual instead of daily loadings. The United States Court of Appeals for the District of Columbia rejected this approach in *Friends of the Earth, Inc. v. EPA*.[28] According to the court, "Daily means daily, nothing else."[29] In response to this decision, EPA issued a new policy instructing all states to establish TMDLs using daily loadings.[30] The policy allows states to include alternative, non-daily pollutant load expressions in order to facilitate implementation of the applicable water quality standards (many of which are not dependent on or expressed using daily time increments). By requiring daily expressions and allowing non-daily expressions, EPA's new policy will alter the SWCB's TMDL development practices.

4. Use Attainability Analyses

Although impairment listings typically trigger the need for a TMDL, further analysis may show that the underlying water

---

(Repl. Vol. 2006).

25. VA. CODE ANN. § 62.1-44.19:7(A) (Repl. Vol. 2006).

26. *See* Consent Decree and Order, Am. Canoe Ass'n v. EPA, No. 98-979-A (E.D. Va. June 11, 1999); Am. Canoe Ass'n v. EPA, 54 F. Supp. 2d 621 (E.D. Va. 1999); Va. Dep't of Envtl. Quality, 10-Year Consent Decree Schedule, http://www.deq.virginia.gov/tmdl/pdf/10yr.pdf.

27. Schedules are available at Va. Dep't of Envtl. Quality, TMDL Development, http://www.deq.state.va.us/tmdl/develop.html (last visited Oct. 11, 2007).

28. 446 F.3d 140 (D.C. Cir. 2006).

29. *Id.* at 142.

30. Memorandum from Benjamin H. Grumbles, Assistant Adm'r, EPA, to Dir., Office of Ecosystem Prot., EPA Region 1, et al. (Nov. 15, 2006), *available at* http://www.epa.gov/owow/tmdl/pdf/anacostia_memo111506.pdf.

quality standards are not, in fact, attainable. Recognizing that legitimate factors may prevent attainment, EPA adopted rules in 1983 to govern such analysis.[31] These rules identify six factors that may justify a change in standards.[32] These rules have been in place and effect for nearly twenty-five years, but are rarely used, in part due to questions about process. To address these questions, the General Assembly amended Virginia Code section 62.1-44.19:7 in 2006 to provide an explicit process for conducting use attainability analyses.[33] The amendment reads as follows:

> If an aggrieved party presents to the Board reasonable grounds indicating that the attainment of the designated use for a water is not feasible, then the Board, after public notice and at least 30 days provided for public comment, may allow the aggrieved party to conduct a use attainability analysis according to criteria established pursuant to the Clean Water Act and a schedule established by the Board. If applicable, the schedule shall also address whether TMDL development or implementation for the water should be delayed.[34]

The first "reasonable grounds" demonstration was presented to and approved by the SWCB on March 9, 2007.[35]

C. *Sewage Sludge*

The land application of sewage sludge, or biosolids, has remained a divisive issue in Virginia. Although land application is considered to be a beneficial use with various advantages over incineration or land disposal, some stakeholders have linked improper land application practices to adverse environmental and human health impacts. As a result, restrictions on land application have been perennial fodder for the General Assembly.

During the 2005 Session, the General Assembly enacted three laws relating to biosolids. The first law requires applicators to give notice to the local government at least 100 days prior to ap-

---

31. *See* Water Quality Standards Regulation, 48 Fed. Reg. 51,400, 51,406–07 (Nov. 8, 1983) (codified at 40 C.F.R. § 131.10(g)).

32. 40 C.F.R. § 131.10(g)(1)–(6) (2006).

33. Act of Mar. 23, 2006, ch. 154, 2006 Va. Acts 176 (codified at Va. Code Ann. § 62.1-44.19:7 (Repl. Vol. 2006)).

34. VA. CODE ANN. § 62.1-44.19:7(E) (Repl. Vol. 2006).

35. *See* State Water Control Bd., Action Report and Minibook (Mar. 9, 2007), *available at* http://www.townhall.state.va.us/L/GetFile.cfm?File=E:\townhall\docroot\Meeting\103\8924\minutes_deq_8924_v1.pdf.

plying biosolids.[36] The second requires the Board of Health to establish a program to train local government employees on the proper testing and monitoring of biosolids.[37] The third provides an opportunity for extended buffers when biosolids are applied by hay, pasture, forestland, and other cropland where surface incorporation is incompatible with a soil conservation plan.[38] In addition, the General Assembly passed a study resolution directing the Joint Legislative Audit and Review Commission to study the land application of biosolids, with a focus on:

> (i) the current level of funding, staffing and resources available for . . . oversight and enforcement . . . ; (ii) resources available to assist local governments with implementation of their biosolids inspection and monitoring authority; (iii) programs to ensure the proper training and support of local biosolids monitors; (iv) incentives to encourage sharing of information and resources among local governments . . . ; and (v) measures to encourage and assist coordination and communication between [state] and local governments so as to ensure consistency and efficiency in complaint response and enforcement.[39]

During the 2007 Session, the General Assembly enacted a law consolidating state authority for regulation of biosolids into one agency, the Department of Environmental Quality ("DEQ").[40] Previously, this authority had been split between DEQ and the Department of Health. The law also requires DEQ to conduct periodic, unannounced inspections of the land application of biosolids.[41] Finally, the law directs the SWCB to adopt regulations governing, among other things: (1) the "treatment or stabilization of [biosolids] prior to land application;" (2) "[r]equirements for determining the suitability of land application sites;" (3) "procedures for land application;" and (4) "[r]equirements for sampling,

36. Act of Mar. 21, 2005, ch. 459, 2005 Va. Acts 624 (codified as amended at VA. CODE ANN. § 32.1-164.5 (Cum. Supp. 2007) and VA. CODE ANN. § 62.1-44.19:3 (Supp. 2007)).

37. Act of Mar. 21, 2005, ch. 460, 2005 Va. Acts 626 (codified as amended at VA. CODE ANN. § 32.1-164.5 (Cum. Supp. 2007)).

38. Act of Mar. 22, 2005, ch. 593, 2005 Va. Acts 788 (codified as amended at VA. CODE ANN. § 32.1-164.5 (Cum. Supp. 2007) and VA. CODE ANN. § 62.1-44.19:3 (Supp. 2007)).

39. H.J. Res. 643, Va. Gen. Assembly (Reg. Sess. 2005).

40. Act of Apr. 4, 2007, ch. 881, 2007 Va. Acts 2388 (codified at VA. CODE ANN. §§ 62.1-44.19:3, -44.19:3.1 to -44.19:3.4 (Supp. 2007)).

41. VA. CODE ANN. § 62.1-44.19:3(M) (Supp. 2007).

analysis, recordkeeping and reporting in connection with land application."[42]

The General Assembly enacted a second law with an emergency clause, effective as of April 4, 2007, authorizing local governments to adopt ordinances requiring special permits for the storage of sewage sludge.[43] Finally, drawing from earlier resolutions, the General Assembly passed a study resolution requesting the Secretary of Natural Resources and the Secretary of Health and Human Resources "to convene a panel of experts to study the impact of land application of biosolids (sewage sludge) on human health and the environment."[44]

D. *"Discharges" from Dams*

On May 15, 2006, the Supreme Court of the United States issued a decision concluding that the passage of water through a hydroelectric dam is a "discharge" that requires state certification under section 401 of the Clean Water Act.[45] In reaching this conclusion, the Court defined "discharge" in its ordinary meaning as "flowing or issuing out," even if the flowing is of water only.[46] The Court did not extend this reasoning to section 402 of the Clean Water Act, which prohibits the discharge of a pollutant without a permit. Rather, the Court ruled that a "discharge" under section 401 is broader than a "discharge of a pollutant" under section 402.[47] The Court's ruling is consistent with the established practice of requiring section 401 certification of dams licensed by the Federal Energy Regulatory Commission, and not requiring section 402 permits for such dams.

III. WATER RESOURCES

Virginia has struggled for many years to better understand and, in turn, manage the Commonwealth's water supply. The drought that occurred between 1999 and 2002 forced the govern-

42. *Id.* § 62.1-44.19:3(C) (Supp. 2007).

43. Act. of Apr. 4, 2007, ch. 927, 2007 Va. Acts 2599 (codified at VA. CODE ANN. § 32.1-164.5(M) (Cum. Supp. 2007) and VA. CODE ANN. § 62.1-44.19:3(I) (Supp. 2007)).

44. H.J. Res. 694, Va. Gen. Assembly (Reg. Sess. 2007).

45. *See* S.D. Warren Co. v. Maine Bd. of Envtl. Prot., 126 S. Ct. 1843 (2006).

46. *Id.* at 1847–49.

47. *Id.* at 1850.

ment into action. In 2003, the General Assembly adopted legislation commissioning the SWCB to adopt regulations requiring local governments to submit water supply plans for their jurisdictions.[48] The statute directed the SWCB to encourage regional water supply planning and identification of alternative water sources, including desalinization.[49]

The resulting regulations took effect in November 2005, and require local governments to submit a water supply plan addressing both current and projected water supply sources and demand over the next thirty to fifty years.[50] If a shortfall in the supply needed to meet the projected demand is expected, localities must identify alternative water supply sources.[51] Localities also must describe demand management measures that will be implemented to conserve water sources.[52] Depending on the size of the locality, the plans will be due between November 2008 and November 2011.[53] In addition to submitting these plans, localities must amend and submit their comprehensive plans, ordinances, and other local authorities to demonstrate consistency with their water supply plans.[54]

In conjunction with the water supply planning regulation, the SWCB has promulgated regulations amending the Virginia Water Protection Permit Program.[55] The amendments clarify the permitting requirements for water withdrawals, including the existing exclusions; institute a new pre-application panel and public information meeting process for surface water projects; and create an emergency permitting process for withdrawals needed during times of drought. The regulations also provide more detail about the information to be considered when evaluating cumulative impacts to instream flow, as well as the information to be provided by applicants to demonstrate that an alternative analy-

48. VA. CODE ANN. § 62.1-44.38:1 (Repl. Vol. 2006).

49. *Id.*

50. *See* 9 VA. ADMIN. CODE §§ 25-780-70 to -100 (2006).

51. *Id.* § 25-780-130.

52. *Id.* § 25-780-110.

53. *Id.* § 25-780-50(B).

54. *Id.* § 25-780-50(A)–(G).

55. Virginia Water Protection Permit Program Regulation, 23 Va. Reg. Regs. 3464 (June 25, 2007) (to be codified at 9 VA. ADMIN. CODE §§ 25-210-10 to -260).

sis has been conducted. The regulations became effective July 25, 2007.[56]

In 2007, additional legislation relating to water supply and water withdrawals was adopted. One piece of legislation separated the provisions of the Virginia Water Protection Permit regulation that relate to wetlands from those that relate to water withdrawals.[57] Although no substantive changes were made to the existing law with these changes, the separation highlights some arguably inconsistent provisions in the Virginia Code with respect to the priority of uses for state waters.

The State Water Policy, found at Virginia Code sections 62.1-10 to 62.1-13, includes a definition of beneficial use: "Public water supply uses for human consumption shall be considered the highest priority."[58] The Virginia Water Protection Permit provision of the Virginia Code includes a provision stating that Virginia Water Protection Permits may contain conditions necessary to protect beneficial uses and provides that "[d]omestic and other existing beneficial uses shall be considered the highest priority uses."[59] Beneficial uses are defined in this section of the Virginia Code as both instream and offstream uses, including protection of fish and wildlife resources, recreation, cultural and aesthetic values, domestic, agricultural uses, electric power generation, commercial, and industrial uses.[60] The priority of various uses of water in Virginia will become increasingly important in the future, and these apparent inconsistencies in the Virginia Code are likely to be revisited.

Legislation also was enacted during the 2007 General Assembly session to require flow augmentation during periods of low flow.[61] The legislation only applies to Virginia Water Protection Permits "authorizing withdrawal of water from the Potomac River or its tributaries between the West Virginia border and Little Falls for any purpose other than municipal water supply."[62]

---

56. *Id.*

57. *See* Act of Mar. 20, 2007, ch. 659, 2007 Va. Acts 1001 (codified at VA. CODE ANN. §§ 62.1-44.15:20 to :22 (Supp. 2007)).

58. VA. CODE ANN. § 62.1-10(b) (Repl. Vol. 2006).

59. *Id.* § 62.1-44.15:22(A) (Supp. 2007).

60. *Id.* § 62.1-44.3 (Supp. 2007).

61. *See* Act of Mar. 20, 2007, ch. 656, 2007 Va. Acts 999 (codified at VA. CODE ANN. § 62.1-44.15:5.02 (Supp. 2007)).

62. VA. CODE ANN. § 62.1-44.15:5.02(A) (Supp. 2007).

Such permits will now require that the permittee "secure sufficient offstream storage to augment instream flow during low-flow periods."[63] This legislation marks the first time that flow augmentation has been required as a protection against drought conditions.

IV. NATURAL RESOURCES

A. *Wetlands*

1. Federal Jurisdiction

On June 19, 2006, the Supreme Court addressed (but failed to agree on) the extent of federal jurisdiction over wetlands in *Rapanos v. United States*.[64] The case involved judgments in two civil enforcement actions that had been consolidated for review. A majority of the justices agreed to vacate those judgments and remand them to the Sixth Circuit for further factual development as to whether the wetlands at issue were, in fact, jurisdictional. However, the justices failed to reach an agreement on how the Sixth Circuit should make this jurisdictional determination. In a plurality opinion authored by Justice Scalia, four of the justices proposed a test restricting jurisdiction to relatively permanent wetlands with continuous surface connections to other "waters of the United States."[65] By contrast, in a concurring opinion, Justice Kennedy proposed a "significant nexus" test, where more than a hydrological connection would be needed to establish jurisdiction.[66] The remaining four justices joined in a dissenting opinion

63. *Id.*

64. 126 S. Ct. 2208 (2006).

65. *Id.* at 2225 ("In sum, on its only plausible interpretation, the phrase 'the waters of the United States' includes only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic features that are described in ordinary parlance as 'streams[,] . . . oceans, rivers, [and] lakes.' The phrase does not include channels through which water flows intermittently or ephemerally, or channels that periodically provide drainage for rainfall. The Corps' expansive interpretation of the 'the waters of the United States' is thus not 'based on a permissible construction of the statute.'" (citations omitted)).

66. *Id.* at 2251–52 (Kennedy, J., concurring) ("In the administrative decision under review, however, the Corps based its jurisdiction solely on the wetlands' adjacency to the ditch opposite the berm on the property's edge. As explained earlier, mere adjacency to a tributary of this sort is insufficient; a similar ditch could just as well be located many

authored by Justice Stevens, in which they proposed to defer to the test already administered by the United States Army Corps of Engineers ("Corps").[67]

In response to the fractured ruling in *Rapanos*, EPA and the Corps issued a joint guidance memorandum on June 5, 2007, in which they attempted to clarify the scope of their jurisdiction over wetlands.[68] The memorandum focuses on Justice Kennedy's "significant nexus" test, which emerged as controlling due to the conflicting plurality and dissenting opinions in *Rapanos*. EPA and the Corps will accept comments on the joint guidance memorandum through December 5, 2007.[69]

2. State Program

Although Virginia is influenced by these federal jurisdictional developments, the state program is intentionally broader in scope than the federal program.[70] In turn, the SWCB has adopted a series of general permits to govern various impacts to state-defined wetlands.[71]

---

miles from any navigable-in-fact water and carry only insubstantial flow towards it. A more specific inquiry, based on the significant nexus standard, is therefore necessary.").

67. *Id.* at 2252 (Stevens, J., dissenting) ("In my view, the proper analysis is straightforward. The Army Corps has determined that wetlands adjacent to tributaries of traditionally navigable waters preserve the quality of our Nation's waters by, among other things, providing habitat for aquatic animals, keeping excessive sediment and toxic pollutants out of adjacent waters, and reducing downstream flooding by absorbing water at times of high flow. The Corps' resulting decision to treat these wetlands as encompassed within the term 'waters of the United States' is a quintessential example of the Executive's reasonable interpretation of a statutory provision.").

68. *See* U.S. Envtl. Prot. Agency & U.S. Army Corps of Eng'rs, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* & *Carabell v. United States* (June 5, 2007), http://www.epa.gov/owow/wetlands/pdf/RapanosGuidance6507.pdf.

69. EPA and Army Corps of Engineers Guidance Regarding Clean Water Act Jurisdiction After Rapanos, 72 Fed. Reg. 31,824 (June 8, 2007).

70. *See, e.g.*, VA. CODE ANN. §§ 62.1-44.15:20 to :23 (Supp. 2007); *see also* Treacy v. Newdunn Assocs., L.L.P., 344 F.3d 407, 412 (4th Cir. 2003) (noting that Virginia clearly intended to exercise jurisdiction over all instate nontidal wetlands including those not within the jurisdiction of the Clean Water Act).

71. *See* 9 VA. ADMIN. CODE § 25-660-20 (2007) (Virginia Water Protection ("VWP") General Permit Number WP1 for impacts less than one-half of an acre, effective August 1, 2006); *id.* § 25-670-20 (VWP General Permit Number WP2 for various utility line activities, effective August 1, 2006); *id.* § 25-680-20 (VWP General Permit Number WP3 for linear transportation projects, effective August 1, 2006); *id.* § 25-690-20 (VWP General Permit Number WP4 for impacts from development and certain mining activities, effective August 1, 2006).

For project applicants, the different, occasionally overlapping jurisdiction of federal and state agencies can be confounding. For example, a project with impacts to wetlands that are jurisdictional under both the federal and state programs may require two permits, one from the Corps and the other from DEQ.[72] In an attempt to streamline these potentially duplicative permitting functions, the Corps' Norfolk District issued a State Programmatic General Permit, effective June 1, 2007, that essentially delegates the Corps' permitting function to DEQ for certain types of residential, commercial, and institutional development activities, as well as linear transportation projects.[73]

B. *Endangered Species*

The federal Endangered Species Act imposes a direct prohibition on the "taking" of listed species.[74] It also requires federal agencies to consult with the Secretary of the Interior over projects they authorize, fund, or carry out to ensure that such projects do not jeopardize listed species.[75] This consultation function gives the Secretary of the Interior, through the Fish and Wildlife Service and National Marine Fisheries Service (collectively, the "Services"), considerable authority over federal project decisions. The scope of this authority has been much debated, particularly in the context of federal delegation decisions (i.e., where federal authority to implement a federal statute, like the Clean Water Act, is delegated to a state).

On June 25, 2007, the Supreme Court tackled this issue in the context of EPA's delegation of certain Clean Water Act authority to the State of Arizona.[76] Under section 402(b) of the Clean Water Act, EPA is required to delegate such authority to a state once the state shows that it has the legal authority to carry out nine spe-

72. Depending on the nature and location of the impacts, a third permit, from the Virginia Marine Resources Commission, also may be required.

73. U.S. Army Corps of Eng'rs, Norfolk (Va.) District, State Program General Permit 07-SPGP-01 (June 1, 2007), *available at* http://www.nao.usace.army.mil/technical%20services/Regulatory%20branch/spgp_2007/07-SPGP-01.pdf.

74. 16 U.S.C. § 1538(a)(1)(B) (2000). "Take" is defined in the Act to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(19) (2000).

75. 16 U.S.C. § 1536(a)(2) (2000).

76. Nat'l Ass'n of Home Builders v. Defenders of Wildlife, 127 S. Ct. 2518 (2007).

cific functions.[77] This delegation triggers consultation under section 7(a)(2) of the Endangered Species Act, but the parties disagreed over whether the "no jeopardy" element of this consultation serves as a tenth prerequisite for delegation under the Clean Water Act. The United States Court of Appeals for the Ninth Circuit ruled that it did, essentially reading consultation as a "trump card" over requirements in other federal statutes.[78]

The Supreme Court disagreed and reversed the Ninth Circuit's decision.[79] According to the Supreme Court, once the nine conditions in section 402(b) of the Clean Water Act are met, EPA must turn over authority to a state.[80] Otherwise, section 7(a)(2) of the Endangered Species Act would essentially overrule section 402(b) "by implication," and the courts do not recognize such implied repeals unless there are signs that Congress intended to repeal an earlier statute.[81] The Supreme Court noted that the Ninth Circuit's interpretation of the Endangered Species Act would not only affect the Clean Water Act but would also "result in the implicit repeal of many additional otherwise categorical statutory commands."[82] Because section 7(a)(2) of the Endangered Species Act applies to "any action authorized, funded, or carried out by" a federal agency, the Ninth Circuit's decision, if left intact, would "partially override every federal statute mandating agency action by subjecting such action to the further condition that it pose no jeopardy to endangered species."[83]

Virginia enjoys delegated authority to administer various federal environmental statutes, including the Clean Water Act, Clean Air Act, and Resource Conservation and Recovery Act. Although this authority has not been challenged as it was in Arizona, the *Defenders of Wildlife* decision effectively validates EPA's delegation to Virginia and, in turn, Virginia's implementation of these statutes.

77. *See* 33 U.S.C. § 1342(b) (2000).
78. *See* Defenders of Wildlife v. EPA, 420 F.3d 946 (9th Cir. 2005).
79. *Defenders of Wildlife*, 127 S. Ct. at 2538.
80. *Id.* at 2525, 2533.
81. *Id.* at 2532.
82. *Id.* at 2533.
83. *Id.*

C. *Land Conservation*

Land conservation is vital to preserving the character and diversity of Virginia's natural, historic, and scenic resources. As the Secretary of Natural Resources aptly noted in connection with Governor Kaine's initiative to permanently protect 400,000 acres of land during his term, "Virginia's identity is its land."[84] There are two primary statutory mechanisms to conserve land in the Commonwealth: the Virginia Conservation Easement Act and the Virginia Open-Space Land Act.[85] These statutes embody the Commonwealth's long-standing policies regarding land conservation.

Of course, one key inducement for voluntary land conservation by private landowners is favorable tax treatment. There are various potential tax benefits associated with permanent land protection through the donation of a conservation easement, including: federal and state income tax deductions for the properly appraised fair market value of the rights conveyed; federal and state estate tax benefits associated with the reduction in the appraised value of an estate; related federal gift tax deductions; and reductions in local real property tax assessments. In addition, Virginia law authorizes a direct income tax credit, which is expressed as a percentage of the value of the donated easement.[86]

Over the past several years, both Congress and the General Assembly have tinkered with these tax-related incentives. At the federal level, a new law that took effect on August 17, 2006, provides the following incentives to donors of conservation easements: (1) it raises the annual limit on charitable deductions taken by individuals for donating conservation easements from thirty percent to fifty percent of their adjusted gross income; (2) it raises the limit for qualified farmers to 100% of their adjusted

84. Va. Sec'y of Natural Res., Land Conservation, http://www.naturalresources.virginia.gov/Initiatives/LandConservation/ (last visited Oct. 11, 2007). Governor Kaine announced this initiative on April 20, 2006: "With every passing day, land is becoming more expensive and scarcer. I will set and meet this preservation goal during my term—not just because it's the right thing to do—I will do it because if I don't, the opportunity to do it will not be there for future governors and future Virginians." *Id.*

85. VA. CODE ANN. §§ 10.1-1009 to -1016 (Repl. Vol. 2006); *id.* §§ 10.1-1700 to -1705 (Repl. Vol. 2006). The Supreme Court of Virginia ruled in *United States. v. Blackman*, 270 Va. 68, 613 S.E.2d 442 (2005), that easements granted prior to these enactments remain valid and enforceable.

86. VA. CODE ANN. § 58.1-512 (Cum. Supp. 2007).

gross income; and (3) it allows donors to carry over qualified conservation contribution deductions that exceed the annual limit for up to fifteen years.[87] The benefits are only available for contributions made between December 31, 2005 and January 1, 2008.[88]

At the state level, the General Assembly enacted a law in 2006 that in part restricted and in part expanded benefits previously available to donors.[89] In particular, the law: (1) reduces the tax credits from fifty percent to forty percent of the value of the conservation easement; (2) imposes an annual statewide cap of $100,000,000 (indexed to inflation beginning in 2008); (3) subjects credits over $1,000,000 to "verification" by the Virginia Department of Conservation and Recreation based on criteria established by the Virginia Land Conservation Foundation; (4) allows credits to be carried forward for ten years (previously five); (5) imposes a fee on the sale or distribution of tax credits (two percent or $10,000, whichever is less); and (6) prohibits certain nonprofit organizations from obtaining credits if they hold conservation easements.[90] These changes in the state program apply to easements granted on or after January 1, 2007.[91]

V. AIR

There have been a number of federal regulatory developments over the past several years with significant impacts on Virginia's air program. An overview of each of these developments follows.

A. *New Source Review*

The Clean Air Act's New Source Review ("NSR") program requires owners and operators to obtain a permit prior to undertaking a major modification. There are two types of permits under the NSR program: Prevention of Significant Deterioration ("PSD") permits, which are issued for major modifications in at-

87. Pension Protection Act of 2006, Pub. L. No. 109-280, § 1206, 120 Stat. 780, 1068–70 (to be codified at 26 U.S.C. § 170(b)(1)(E)).

88. *Id.*

89. Act of Aug. 28, 2006, ch. 4, 2006 Va. Acts (Spec. Sess.) 874 (codified at VA. CODE ANN. §§ 58.1-512, -513, -901 (Cum. Supp. 2007)).

90. VA. CODE ANN. §§ 58.1-512, -513 (Cum. Supp. 2007).

91. *Id.* § 58.1-512(D) (Cum. Supp. 2007).

tainment areas,[92] and non-attainment NSR permits, which apply to major modifications in areas not in compliance with National Ambient Air Quality Standards ("NAAQS").[93]

Under the PSD program, if a major modification takes place, the owner or operator of the facility must demonstrate that the proposed source will comply with the NAAQS and the PSD increments.[94] Further, if the major modification results in a significant increase in emissions at an emission unit, the owner or operator will be required (by permit) to install best available control technology ("BACT") for that emission unit.[95]

A major modification is defined by the regulations as a "physical change or change in the method of operation" that causes a "significant emissions increase."[96] The calculus for determining whether a significant emissions increase has occurred has been the subject of considerable controversy in recent years. Regulated facilities have been looking to the courts for more definitive guidance on the definition of "modification" under the PSD program. In 2002, EPA promulgated regulations allowing the use of an "actual-to-projected-actual" methodology to calculate whether a change will result in a significant emissions increase.[97]

Under the "actual-to-projected-actual" method, a significant emissions increase is projected to occur if the projected actual emissions equal or exceed by more than a significant amount the baseline actual emissions.[98] Baseline emissions are "the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period" selected by the facility within the five-year period immediately preceding when actual construction of the project begins.[99] The second step in determining whether a significant emissions increase will occur requires calculation of the "projected actual emissions." Projected actual emissions are:

92. *See* 42 U.S.C. § 7475(a) (2000).
93. *See id.* § 7503(a).
94. *Id.* § 7475(a)(3).
95. *Id.* § 7475(a)(4).
96. 40 C.F.R. § 52.21(b)(2)(i) (2006).
97. *Id.* § 52.21(a)(2)(iv)(c).
98. *Id.*
99. *Id.* § 52.21(b)(48)(i).

> the maximum annual rate, in tons per year, at which [the] unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the unit's design capacity or its potential to emit that . . . pollutant.[100]

In calculating "projected actual emissions," the source must exclude any emissions increases that are unrelated to the change and that could have been accommodated by the unit during the baseline period.[101]

Technically, the 2002 rules allow two "options" for evaluating an emissions increase—the "actual-to-projected-actual test"[102] and the "actual-to-potential" test.[103] Under the latter, virtually every project at an electric utility will result in an emissions increase, unless the source is willing to take an enforceable permit limit constraining its future emissions to baseline emissions.[104] Accordingly, facilities advocate evaluating emission increases under the "actual-to-projected-actual" test.

It also has been argued that the first step in determining whether a modification has taken place requires an analysis of whether the physical change caused an increase in hourly emissions. The United States Court of Appeals for the Fourth Circuit ruled in 2005 that the term "modification" must be read consistent with the definition of modification in the New Source Performance Standards ("NSPS") regulations, and that the physical change must cause an increase in hourly emissions.[105] The question of whether a significant increase in air emissions was caused by the physical change is triggered only if an increase in hourly emissions occurs. This decision, however, was overturned by the Supreme Court on April 2, 2007.[106] The Court ruled that EPA is not required to apply the NSPS definition of major modification in the PSD context.[107] Accordingly, for purposes of PSD, the hourly emissions test does not apply.

---

100. *Id.* § 52.21(b)(41)(i).
101. *Id.* § 52.21(b)(41)(i)(c).
102. *Id.* § 52.21(a)(2)(iv)(c).
103. *Id.* § 52.21(a)(2)(iv)(d).
104. *See id.*
105. *See* United States v. Duke Energy Corp., 411 F.3d 539, 550–51 (4th Cir. 2005).
106. *See* Envt'l Def. v. Duke Energy Corp., 127 S. Ct. 1423 (2007).
107. *See id.* at 1428.

While the *Duke Energy* case was winding its way through the courts,[108] the Virginia State Air Pollution Control Board ("APCB") was in the process of amending its major NSR regulations to incorporate EPA's 2002 PSD amendments. The changes became effective on September 1, 2006.[109] Virginia adopted the past-actual-to-future-projected-actual test. The regulations define "net emissions increase" as "the amount by which the sum of the following exceeds zero: (i) any increase in actual emissions from a particular physical change or change in the method of operation at a stationary source and (ii) any other increases and decreases in actual emissions at the source that are concurrent with the particular change and are otherwise creditable."[110]

"Actual emissions" is defined by the regulation as the average amount (in tons per year) of a pollutant actually emitted "during a two-year period that precedes the particular date and that is representative of normal source operation."[111] If there is a different two-year period that is more representative of normal source operation, that two-year period may be used to determine actual emissions if approved by the APCB.[112] "Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period."[113] In the instance where "normal

108. There are several other cases that may impact the NSR regulatory program. For example, the definition of "routine maintenance and repair" has been the subject of litigation, as well as the equipment replacement provision, which amends the routine maintenance, repair and replacement exclusion from the NSR requirements. *See, e.g.*, New York v. EPA, 443 F.3d 880 (D.C. Cir. 2006).

109. *See* New and Modified Stationary Sources, 22 Va. Reg. Regs. 3300 (July 24, 2006) (codified as amended in scattered sections of 9 VA. ADMIN. CODE).

110. 9 VA. ADMIN. CODE § 5-80-1110(C) (2007).

111. *Id.*

112. *See id.*

113. *Id.* In July 2006, the APCB approved new regulations in the context of major NSR that define "projected actual emissions" as

> the maximum annual rate, in tons per year, at which [the] unit is projected to emit a regulated NSR pollutant in any one of the five years . . . following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the [unit's] design capacity or its potential to emit that [pollutant].

Id. § 5-80-1615(C) (2007). Emission increases unrelated to the project are not included in this calculation. *Id.* Because a project cannot have a net increase in emissions for major NSR purposes and another net increase in emissions for minor source NSR, arguably this language applies to minor NSR permitting as well. Accordingly, the test to determine whether a net emissions increase has occurred is a comparison of actual emissions to projected actual emissions.

operations" have not begun, future actual emissions are equal to the "potential to emit."[114]

Although the regulations do not specifically define future actual emissions where normal operations have already begun, EPA regulations and federal court cases have opined that future actual emissions should be projected based on the past operating conditions at a facility. Accordingly, past actual emissions are compared to future projected actual emissions to determine whether a net emissions increase has occurred.

EPA recently proposed a change to the federal NSR regulations to codify the increase in hourly emissions test as a trigger for PSD permitting requirements.[115] Despite the Supreme Court's decision in *Duke Energy*, EPA still has the discretion to amend its regulations and interpret the term modification to require an hourly emissions increase. If EPA ultimately finalizes this proposed change, Virginia will likely amend its regulations to capture this interpretation.

B. *Clean Air Interstate Rule*

On March 10, 2005, EPA finalized the Clean Air Interstate Rule ("CAIR").[116] The goal of CAIR is to reduce interstate transport of air pollution. CAIR permanently caps emissions of sulfur dioxide ("SO_2") and nitrogen oxides ("NO_x") in the Eastern United States.[117] While caps are set for each state, including Virginia, CAIR allows compliance to be met through a cap and trade program.[118] Each state must adopt regulations implementing CAIR and determining how compliance with the cap will be achieved.

During the 2006 General Assembly session, legislation was enacted requiring the APCB to adopt regulations implementing

---

114. *Id.* § 5-80-1110(C)(3) (2007).

115. Prevention of Significant Deterioration New Source Review: Refinement of Increment Modeling Procedures, 72 Fed. Reg. 31,372, 31,397–99 (proposed June 6, 2007) (to be ratified at 40 C.F.R. pts. 51, 52).

116. Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to the Acid Rain Program; Revisions to the NO_x SIP Call, 70 Fed. Reg. 25,162 (May 12, 2005) (codified at 40 C.F.R. pts. 51, 72, 73, 74, 77, 78, 96) [hereinafter Clean Air Interstate Rule].

117. U.S. Envtl. Prot. Agency, Clean Air Interstate Rule, http://www.epa.gov/cair/ (last visited Oct. 11, 2007).

118. Clean Air Interstate Rule, 70 Fed. Reg. at 25,167.

CAIR.[119] The regulations were required to "include a [five percent] set-aside of NO_x allowances during the first five years of the program and [two percent] thereafter for new sources, including renewables and energy efficiency projects."[120] The statute also required that Virginia participate in the federal cap and trade system, except that the APCB was given the discretion to prohibit electric generating units ("EGUs") located within a nonattainment area in Virginia from purchasing allowances to comply with their emission allocations.[121] Finally, the statute requires facilities of a certain size to achieve early reductions in NO_x emissions.[122]

Virginia adopted regulations implementing CAIR, and they became effective April 18, 2007.[123] The regulations included a provision prohibiting the purchasing of allowances by facilities located within a nonattainment area.[124] The Board received a petition for additional opportunity to comment on the nonattainment area restrictions, and that portion of the rule was suspended and reopened for public comment.[125] The other provisions of the Virginia CAIR remain operative.

C. *Clean Air Mercury Rule*

EPA issued the Clean Air Mercury Rule ("CAMR") on March 15, 2005.[126] CAMR permanently caps and reduces mercury emissions from coal-fired power plants.[127] Like CAIR, CAMR allows states to achieve compliance with the mercury emission caps through trading of emission allowances.[128] Each state must adopt

---

119. Act of Apr. 19, 2006, ch. 867, 2006 Va. Acts 1401 (codified at VA. CODE ANN. §§ 10.1-1327, -1328 (Repl. Vol. 2006)).

120. VA. CODE ANN. § 10.1-1328(A)(4) (Repl. Vol. 2006).

121. *Id.* § 10.1-1328(A)(5) (Repl. Vol. 2006).

122. *Id.* § 10.1-1328(B) (Repl. Vol. 2006).

123. Regulation for Emissions Trading, 23 Va. Reg. Regs. 2277 (Mar. 19, 2007) (to be codified in scattered sections of 9 VA. ADMIN. CODE).

124. *Id.* at 2291 (to be codified at 9 VA. ADMIN. CODE § 5-140-1061).

125. *See* Regulation for Emissions Trading, Notice of Suspension of Effective Date and Reopening of Public Comment Period, 23 Va. Reg. Regs. 2880 (May 14, 2007).

126. Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units, 70 Fed. Reg. 28,606 (May 18, 2005) (to be codified at 40 C.F.R. pts. 60, 72, 75).

127. U.S. Envtl. Prot. Agency, Clean Air Mercury Rule, http://www.epa.gov/camr/ (last visited Oct. 11, 2007).

128. Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units, 70 Fed. Reg. at 28,649–50.

regulations implementing CAMR and determining how compliance with the cap will be achieved.

During the 2006 General Assembly session, legislation was enacted requiring the APCB to adopt regulations implementing CAMR.[129] The statute required the APCB to adopt the model rule promulgated by EPA, including participation in the national mercury trading program and a set-aside of mercury allowances for new sources of up to five percent of the total state budget for the first five years of the program and two percent thereafter.[130]

The statute further requires the APCB to adopt a separate state-specific rule, not to be submitted to EPA, that will differ from the federal CAMR in several respects.[131] Although transfer of credits is permitted between facilities under common ownership, facilities subject to the state-specific rule cannot purchase allowances to demonstrate compliance.[132] Additionally, EGUs located within a nonattainment area are prohibited from purchasing allowances, unless they are from another facility under the control of the same owner or operator or parent corporation and located within 200 kilometers of Virginia's border.[133]

The APCB promulgated regulations implementing the federal CAMR as well as the state-specific mercury rule.[134] Those regulations became effective April 4, 2007.[135]

The statute also required the DEQ to study mercury deposition in Virginia.[136] The purpose of the study is to determine whether additional measures to control mercury emissions are needed in Virginia. The study will explore the impact of mercury emissions from EGU and non-EGU sources in the state on mercury deposition in Virginia. The preliminary assessment is to be completed

129. Act of Apr. 19, 2006, ch. 867, 2006 Va. Acts 1401 (codified at VA. CODE ANN. §§ 10.1-1327, -1328 (Repl. Vol. 2006)).

130. VA. CODE ANN. § 10.1-1328(C) (Repl. Vol. 2006).

131. *Id.* § 10.1-1328(D) (Repl. Vol. 2006).

132. *Id.* § 10.1-1328(D)(3) (Repl. Vol. 2006).

133. *Id.* § 10.1-1328(F) (Repl. Vol. 2006).

134. Regulation for Emissions Trading Programs, 23 Va. Reg. Regs. 2159–86 (Mar. 5, 2007) (to be codified at 9 VA. ADMIN. CODE §§ 5-140-5010 to -5750).

135. *Id.* at 2160.

136. Act of Apr. 19, 2006, ch. 867, 2006 Va. Acts 1401 (codified at VA. CODE ANN. §§ 10.1-1327, -1328 (Repl. Vol. 2006)).

by October 15, 2007, and the final report is due to the General Assembly by October 15, 2008.[137]

D. *Best Alternate Retrofit Technology*

EPA promulgated regulations in 1999 to address regional haze.[138] One component of those regulations was the Best Alternative Retrofit Technology ("BART") requirement. This requirement involves the installation of best emission controls on certain older, larger facilities.[139] On July 6, 2005, EPA issued final amendments to its July 1999 regional haze rule and provided final BART guidelines.[140] Virginia recently adopted regulations implementing BART.[141]

The Virginia regulations outline which facilities are subject to BART. BART-eligible sources that emit "any air pollutant that may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory federal class I area" are subject to the rule.[142] Virginia has two class I areas: the Shenandoah National Park and the James River Face Wilderness.[143] A BART-eligible source is a facility that came into operation between August 7, 1962 and August 7, 1977 and has the potential to emit 250 tons per year or more of any air pollutant.[144] The regulation also provides exemptions from the BART requirements.[145] Further, BART-eligible facilities may conduct exemption modeling as a basis for avoiding the BART permitting process. The deadline for seeking an exemption on the basis of modeling was September 2006.[146]

---

137. VA. CODE ANN. § 10.1-1327 Editor's Note (Repl. Vol. 2006).

138. Regional Haze Regulations, 64 Fed. Reg. 35,714 (July 1, 1999) (codified at 40 C.F.R. pt. 51).

139. *See id.* at 35,737–38.

140. Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations, 70 Fed. Reg. 39,104 (July 6, 2005) (codified at 40 C.F.R. pt. 51).

141. Existing Stationary Sources, 23 Va. Reg. Regs. 3455 (June 25, 2007) (to be codified at 9 VA. ADMIN. CODE §§ 5-40-7550 to -7710).

142. *Id.* at 3460 (to be codified at 9 VA. ADMIN. CODE § 5-40-7550(A)).

143. *See* Va. Dep't of Envtl. Quality, BART (Best Available Retrofit Technology) Information Resources, http://www.deq.virginia.gov/air/bart.html (last visited Oct. 11, 2007).

144. Existing Stationary Sources, 23 Va. Reg. Regs. at 3461 (to be codified at 9 VA. ADMIN. CODE § 5-40-7570).

145. *Id.* at 3460 (to be codified at 9 VA. ADMIN. CODE § 5-40-7550).

146. Va. Dep't of Envtl. Quality, *supra* note 143.

BART-eligible facilities subject to the permitting program must make a BART determination by analyzing "the best system of continuous emission control technology available and associated emission reductions achievable."[147] The BART determination must be implemented by August 1, 2012.[148] If a facility is subject to both BART and CAIR, the CAIR requirements will be sufficient to demonstrate compliance with BART for SO_2 and NO_x.[149] However, EGUs will still be subject to BART for their particulate matter emissions.[150]

DEQ must submit its regional haze plan, including BART requirements, to EPA by December 17, 2007.[151]

E. *Clean Air Fine Particle Rule*

On July 18, 1997, EPA adopted NAAQS for fine particles that are 2.5 or fewer micrometers in diameter ("$PM_{2.5}$").[152] EPA also replaced the one-hour ozone NAAQS with an eight-hour standard.[153] The one-hour standard was phased out and the eight-hour standard became fully effective on June 15, 2005.[154] Virginia incorporated the federal changes to the NAAQS on September 8, 2004.[155] As a result of these changes, in 2005 Virginia designated a new $PM_{2.5}$ nonattainment area in Northern Virginia.[156] The APCB recently adopted additional changes to the $PM_{2.5}$ standard, effective August 1, 2007,[157] which implement EPA's recent revisions to the particulate matter NAAQS.[158]

---

147. Existing Stationary Sources, 23 Va. Reg. Regs. at 3463.

148. *Id.*

149. *See* Regional Haze Regulations; Revisions to Provisions Governing Alternative to Source-Specific Best Available Retrofit Technology (BART) Determinations, 71 Fed. Reg. 60,612, 60,632 (Oct. 13, 2006) (to be codified at 40 C.F.R. § 51.308(e)(4)).

150. Va. Dep't of Envtl. Quality, *supra* note 143.

151. *Id.*

152. National Ambient Air Quality Standards for Particulate Matter, 62 Fed. Reg. 38,652 (July 18, 1997) (codified at 40 C.F.R. pt. 50).

153. National Ambient Air Quality Standards for Ozone, 62 Fed. Reg. 38,856 (July 18, 1997) (codified at 40 C.F.R. pt. 50).

154. *See* 40 C.F.R. § 50.9(b) (2006).

155. *See* 9 VA. ADMIN. CODE § 5-30-10 to -80 (2007).

156. 9 VA. ADMIN. CODE § 5-20-204 (2007).

157. *See* Ambient Air Quality Standards, 23 Va. Reg. Regs. 3454 (June 25, 2007) (to be codified at 9 VA. ADMIN. CODE §§ 5-30-65, -66).

158. National Ambient Air Quality Standards for Particulate Matter, 71 Fed. Reg. 61,144 (Oct. 17, 2006) (to be codified at 40 C.F.R. pt. 50).

Additionally, when Virginia's major NSR amendments were finalized, they included a $PM_{2.5}$ significance level of ten tons per year.[159] DEQ issued guidance adopting EPA's guidance on interim implementation of the $PM_{2.5}$ standard in the NSR program. The guidance allows sources to use PM_{10}[160] as a surrogate for $PM_{2.5}$ until such time as measurement, calculation, and modeling methodologies are developed for $PM_{2.5}$.[161]

F. *Significant Issue on the Horizon: Global Climate Change*

In October, 1999, a group of private organizations petitioned EPA to begin regulating emissions of greenhouse gases from mobile sources. EPA denied the request, reasoning that the Clean Air Act does not authorize it to issue mandatory regulations to address global climate change. Even if it had the authority, EPA determined that a causal link between greenhouse gases and the increase in global surface air temperatures was not unequivocally established, and therefore there was insufficient basis for such a rulemaking. The groups sought review of EPA's order denying their petition in the United States Court of Appeals for the District of Columbia, and were joined in their case by Massachusetts and other state and local governments. The D.C. Circuit upheld EPA's order.[162]

The Supreme Court heard the case and determined that EPA did in fact have the authority to regulate carbon dioxide and other greenhouse gas emissions from mobile sources under the Clean Air Act because greenhouse gas emissions are "air pollutants" as defined by the Clean Air Act.[163] The Court went further to find that EPA's decision not to regulate the emissions at this time was not based on the statute, and it remanded the action to EPA.[164] The Court opined that EPA must make a determination as to whether greenhouse gas emissions meet the "endangerment" test for regulation under section 202(a)(1) of the Clean Air

159. *See* Va. Dep't of Envtl. Quality, Air Guidance Memo No. APG-307: Interim Implementation of New Source Review for $PM_{2.5}$ (Oct. 10, 2006), *available at* http://www.townhall.state.va.us/L/GetFile.cfm?File=E:\townhall\docroot\GuidanceDocs\440\GDoc_DEQ_2970_v1.pdf.

160. PM_{10} are fine particles with a diameter of ten micrometers or less.

161. Va. Dep't of Envtl. Quality, *supra* note 159.

162. *See* Massachusetts v. EPA, 415 F.3d 50 (D.C. Cir. 2005).

163. Massachusetts v. EPA, 127 S. Ct. 1438, 1462 (2007).

164. *Id.* at 1462–63.

Act.[165] In other words, EPA can refuse to issue the regulations "only if it determines that greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do."[166] This case, along with other pending cases,[167] will likely have a profound effect on air regulatory programs in Virginia and throughout the nation in the near future.

Virginia has joined the newly-formed Climate Registry,[168] a nonprofit cooperative aimed at developing a common accounting system to track greenhouse gas emissions.[169] The data collected as part of this program will help states develop greenhouse gas reduction options. The Climate Registry will begin collecting the data in January 2008.[170]

VI. WASTE

A. *Superfund*

The federal Superfund law[171] is the subject of extensive judicial interpretation. In December 2004, the Supreme Court issued a ruling clarifying that a private party who has not been sued under sections 106 or 107(a) of the federal Superfund law may not bring a claim for contribution under section 113(f)(1) against other potentially responsible parties to recover clean-up costs incurred voluntarily.[172] This decision reversed established practice in a number of federal circuits and created a perverse disincentive for parties interested in cleaning up property voluntarily without some judicial or administrative order in place.

---

165. *Id.* at 1462.

166. *Id.*

167. *See, e.g.*, New York v. EPA, No. 06-1322 (D.C. Cir. filed Sept. 13, 2006) (relating to EPA's refusal to establish a carbon dioxide new source performance standard for steam electric generating units).

168. *See* The Climate Registry, http://www.theclimateregistry.org/ (last visited Oct. 11, 2007).

169. Press Release, Office of the Governor, Governor Kaine signs on to Climate Registry (May 22, 2007), *available at* http://www.governor.virginia.gov/MediaRelations/NewsReleases/viewRelease.cfm?id=416.

170. *Id.*

171. Superfund is the common name for the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601–9675 (2000 & Supp. IV 2004).

172. *See* Cooper Indus., Inc. v. Aviall Services, Inc., 543 U.S. 157, 160–61 (2004).

One key question left unanswered by the Supreme Court in *Aviall* was whether a potentially responsible party could sue for cost recovery under section 107 instead of contribution under section 113(f)(1). This question was addressed in a subsequent case out of the Second Circuit. In that case, the Second Circuit ruled that a potentially responsible party could in fact sue another potentially responsible party for cost recovery under section 107, even if it could not maintain a similar action for contribution under section 113(f)(1).[173] The Supreme Court declined to review the Second Circuit's decision, effectively ratifying this approach to cost recovery. More recently, in June 2007, the Court issued a ruling clarifying that any private party, including a potentially responsible party, may bring a cost recovery action under section 107.[174] This removes the disincentive prompted by *Aviall.*

B. *Mercury Switches*

The problems associated with the emission of mercury into the atmosphere, discharge into surface waters, and disposal into the ground are well-documented and serve as the basis for various regulatory programs aimed at reducing mercury in the environment. Because end-of-pipe control of mercury tends to be expensive, the removal of mercury before it is emitted, discharged, or disposed of has become an increasingly popular focus for regulation. With this in mind, the General Assembly enacted a law in 2006 that requires the removal of mercury switches from vehicles prior to demolition.[175] The General Assembly directed the Virginia Waste Management Board to adopt regulations governing such removal, which the Board did, effective March 21, 2007.[176] These regulations apply to "end-of-life vehicles," which are defined as vehicles manufactured on or before the 2002 model year that end up in the hands of demolition operators or other scrap metal processors.[177]

---

173. Consol. Edison Co. of N.Y. v. UGI Utilities, Inc., 423 F.3d 90, 97 (2d Cir. 2005), *cert. denied*, 127 S. Ct. 2995 (2007).

174. United States v. Atl. Research Corp., 127 S. Ct. 2331, 2333–34 (2007).

175. Act of Feb. 23, 2006, ch. 16, 2006 Va. Acts 13 (codified as amended at VA. CODE ANN. § 46.2-635 (Cum. Supp. 2007)).

176. Mercury Switch Regulations, 23 Va. Reg. Regs. 1666 (Feb. 5, 2007) (to be codified at 9 VA. ADMIN. CODE § 20-200-10 to -70).

177. *Id.*

C. *State Waste Management Program*

Virginia enjoys delegated authority to implement the federal waste law, and does so with some variation for state-only requirements.[178] To conform with changes in the federal program, Virginia routinely revisits and amends its waste management regulations. Over the survey period, a number of amendments have been proposed and/or successfully adopted.[179]

VII. ADMINISTRATIVE PROCESS

A. *Representational Standing*

Virginia's water, air, and waste statutes each provide a mechanism for judicial review that incorporates by reference the three-part test for standing under Article III of the United States Constitution.[180] However, these statutes do not explicitly address whether one party may sue in a representative capacity on behalf of another. This doctrine of "representational standing" is well-established in federal law, but has not traditionally been recognized in Virginia unless explicitly conferred by the General Assembly.[181]

The Supreme Court of Virginia clarified the applicability of this doctrine to Virginia's environmental statutes in a case of first impression in 2007.[182] In that case, Chesapeake Bay Foundation asserted the right to sue in a representative capacity in connection with a permit issued by the SWCB under the State Water Control Law. The court ruled that this right exists and that the General Assembly intended to confer both individual and representational

178. By way of example, Virginia requires hazardous waste generators to notify DEQ of the location of their accumulation areas. 9 VA. ADMIN. CODE § 20-60-262(B)(4) (2007). This is one of several state-only requirements.

179. See Virginia Regulatory Town Hall, http://www.townhall.state.va.us/L/ViewBoard.cfm?BoardID=119, for recent regulatory activity by Virginia Waste Management Board.

180. VA. CODE ANN. § 62.1-44.29 (Supp. 2007); VA. CODE ANN. §§ 10.1-1318, -1457 (Repl. Vol. 2006).

181. *See, e.g.*, Pearsall v. Va. Racing Comm'n, 26 Va. App. 376, 383, 494 S.E.2d 879, 883 (Ct. App. 1998).

182. *See* Philip Morris USA, Inc. v. Chesapeake Bay Found., Inc., 273 Va. 564, 643 S.E.2d 219 (2007).

standing when it amended the State Water Control Law in 1996.[183]

The court's decision in *Chesapeake Bay Foundation* opens the door to representative lawsuits under the State Water Control Law and, by extension, the Virginia Air Pollution Control Law and the Virginia Waste Management Act. It essentially harmonizes Virginia environmental law with the long-standing federal doctrine of representational standing.

B. *Summary Case Decisions*

In 2006, the General Assembly amended the Administrative Process Act to provide a mechanism for summary case decisions.[184] The mechanism is available to "[a]ny person who has (i) applied for a permit, certificate, or license from an agency or (ii) received written notice of a potential violation from an agency."[185] In situations where no material facts are in dispute and the only question is one of law, the requester may bypass the informal fact-finding or formal hearing process and proceed directly to a summary case decision, based on briefing and oral argument before the agency.[186]

C. *Enforcement*

DEQ remains keenly focused on environmental enforcement policies that are transparent, consistent, and serve to promote compliance. Toward those ends, DEQ has issued a number of new policies over the past three years, including:

---

183. *Id.* at 576–77, 643 S.E.2d at 225–26 ("Representational standing essentially allows an organization to bring a suit on behalf of its members and was a well-established principle in federal law at the time of the 1996 amendment of Code § 62.1-44.29. We presume that the General Assembly was aware of this circumstance when it amended Code § 62.1-44.29. Accordingly, we will look to the federal court's requirements for establishing representational standing to determine whether the Foundation may claim representational standing in seeking judicial review of the decision of the State Water Control Board under this statute."). The court also ruled that the Foundation had alleged sufficient facts about its standing, both as an individual and on behalf of its members, to survive demurrer. *Id.* at 581, 643 S.E.2d at 228–29.

184. Act of Apr. 5, 2006, ch. 702, 2006 Va. Acts 970 (codified at VA. CODE ANN. § 2.2-4020.1 (Cum. Supp. 2007)).

185. VA. CODE ANN. § 2.2-4020.1 (Cum. Supp. 2007).

186. *See id.*

1. Guidance Memorandum DE-05-001 (effective October 26, 2005), addressing the format for and processing of warning letters and notices of violation.[187]

2. Enforcement Guidance Memorandum No. 3-2006 (effective September 19, 2006), addressing the use and evaluation of supplemental environmental projects as offsets for civil penalties.[188]

3. Enforcement Guidance Memorandum No. 1-2006 (effective June 13, 2006), addressing statutory privileges (against disclosure) and immunities (against enforcement) for violations identified through voluntary environmental assessments that are voluntarily disclosed to DEQ.[189]

4. Enforcement Guidance Memorandum No. 2-2006, Revision 1 (effective June 29, 2007), addressing the criteria used by DEQ to calculate appropriate civil charges and civil penalties in administrative actions for air, waste, water quality and water resources.[190]

5. Enforcement Guidance Memorandum No. 1-2007 (effective June 29, 2007), addressing the process of issues special orders for sanitary sewer overflows.[191]

In 2005, the General Assembly enacted a law that increased DEQ's civil penalty authority under the air, water, and waste statutes to $32,500 per violation, not to exceed $100,000 per order.[192] As a check on this new authority, the General Assembly directed DEQ to "develop and implement an early dispute resolu-

187. Va. Dep't of Envtl. Quality, Guidance Memorandum DE-05-001: Notices of Alleged Violations (Oct. 26, 2005), *available at* http://www.deq.state.va.us/enforcement/documents/guidancememode05001.pdf.

188. Va. Dep't of Envtl. Quality, Enforcement Guidance Memorandum No. 3-2006: Supplemental Environmental Projects (Sept. 19, 2006), *available at* http://www.deq.state.va.us/enforcement/documents/Enf%20Guidance%203006%20_cora.pdf.

189. Va. Dep't of Envtl. Quality, Enforcement Guidance Memorandum No. 1-2006: Voluntary Environmental Assessments (June 13, 2006), *available at* http://www.deq.state.va.us/enforcement/documents/guidancememo1-2006.pdf.

190. Va. Dep't of Envtl. Quality, Enforcement Guidance Memorandum No. 2-2006: Civil Charges and Civil Penalties in Administrative Actions (June 29, 2007), *available at* http://www.deq.state.va.us/enforcement/documents/CivilChargesCivilPenaltyGuidanceMemoRevision-1-Final.doc..

191. Va. Dep't of Envtl. Quality, Enforcement Guidance Memorandum No. 1-2007: Process for Issuing Administrative Orders to Prevent or Minimize Sanitary Sewer Overflows (June 29, 2007), *available at* http://www.deq.state.va.us/enforcement/documents/PublicParticipationInSSOsFinal.doc.

192. Act of Mar. 24, 2005, ch. 706, 2005 Va. Acts 1016 (codified at VA. CODE ANN. § 10.1-1309(A)(vi) (Repl. Vol. 2006)).

tion process to help identify and resolve disagreements regarding what is required to comply with the regulations promulgated by the State Air Pollution Control Board, the State Water Control Board, the Virginia Waste Management Board and any related guidance."[193] In keeping with this directive, DEQ issued Agency Policy Statement No. 8-2005, effective September 1, 2005, in which it established a process for early dispute resolution of both notices of alleged violation and notices of deficiency.[194]

D. *Environmental Excellence*

In 2005, the General Assembly codified DEQ's environmental excellence program, which is designed to recognize proactive efforts by regulated entities "that have demonstrated a commitment to enhanced environmental performance."[195] The program includes three levels of participation: "environmental enterprise" (E2); "exemplary environmental enterprise" (E3); and "extraordinary environmental enterprise" (E4).[196] In addition to formally recognizing these different levels of excellence, the General Assembly empowered DEQ (through the relevant citizen boards) to approve alternative compliance methods, including "changes to monitoring and reporting requirements and schedules, streamlined submission requirements for permit renewals, the ability to make certain operational changes without prior approval, and other changes that would not increase a facility's impact on the environment."[197]

Such alternative methods are only available where they: "(i) meet the purpose of the applicable regulatory standard; (ii) promote achievement of those purposes through increased reliability, efficiency, or cost effectiveness; and (iii) afford environmental protection equal to or greater than that provided by the applicable regulatory standard."[198]

193. VA. CODE ANN. § 10.1-1309 Editor's Note (Repl. Vol. 2006).

194. Va. Dep't of Envtl. Quality, Agency Policy Statement No. 8-2005, Process for Early Dispute Resolution of Notices of Alleged Violation and Notices of Deficiency (Sept. 1, 2005), *available at* http://www.deq.virginia.gov/regulations/pdf/Process_for_Early_Dispute_Resolution_8260532.pdf.

195. VA. CODE ANN. § 10.1-1187.2 (Repl. Vol. 2006).

196. *Id.* § 10.1-1187.3 (Repl. Vol. 2006).

197. *Id.* § 10.1-1187.6(A) (Repl. Vol. 2006).

198. *Id.*

One of the first examples of an alternative compliance method is embedded in Virginia's Regulation for Nutrient Enriched Waters and Dischargers Within the Chesapeake Bay Watershed.[199] This regulation authorizes the SWCB to suspend otherwise applicable limits for E3 and E4 facilities with environmental management systems that require operation of treatment equipment at the treatment efficiency levels for which they were designed.[200]

E. *Citizen Board Consolidation*

In 2007, the General Assembly passed legislation that would consolidate the State Air Pollution Control Board, the State Water Control Board, and the Virginia Waste Management Board into one eleven-member citizen board to be named the Virginia Board of Environmental Quality.[201] The law would empower this new board with the authority to adopt regulations, including general permit regulations, and would shift all other responsibilities of the existing boards (including the issuance of permits) to DEQ.[202] The law would also establish a new citizen appeals board with authority to hear appeals of DEQ decisions.[203] Although this legislation passed both houses, it contains a "re-enactment clause" that effectively postpones its effectiveness unless and until it passes through the General Assembly a second time in 2008 and is signed into law by the Governor.[204]

VIII. CONCLUSION

In any survey, you will encounter both the sublime and the absurd, from developments that make sense to those that leave you scratching your head in disbelief. We will leave you to draw your own conclusions about the developments presented in this survey, pausing only to repeat the closing statement of our predecessors:

---

199. 9 VA. ADMIN. CODE § 25-40-10 to -70 (2007).

200. *Id.* § 25-40-70(B) (2007).

201. Act of Mar. 26, 2007, ch. 838, 2007 Va. Acts 1339 (to be codified at VA. CODE ANN. § 10.1-1187.01).

202. *Id.*

203. *Id.* (to be codified at VA. CODE ANN. § 10.1-1186.1:2).

204. *Id.*

"The only certainty is that, when it comes to environmental regulation, there can be no settled expectations."[205]

205. Benjamin A. Thorp IV & William K. Taggart, *Annual Survey of Virginia Law: Environmental Law*, 39 U. RICH. L. REV. 203, 239 (2004).