

Virginia Water Central

Virginia Water Resources Research Center Blacksburg, Virginia June 2001 (No. 17)

FEATURE ARTICLE

Water in the 2001 General Assembly

This year's General Assembly lasted from January 10 to February 24. The House of Delegates and Senate considered 2645 bills and resolutions. By our reckoning, 123 of these had something to do with water resources or water-related activities. This count is based on information available on the General Assembly's Legislative Information Service (LIS) Web-site: **leg1.state.va.us**. To find water-related legislation, we searched nine LIS categories: conservation; drainage, soil conservation, sanitation, and public facilities districts; fisheries and habitat of tidal waters; game, inland fisheries, and boating; health; mines and mining; waste disposal; waters of the state, ports, and harbors; and water and sewer systems.

Beginning on page 2, we present the resulting list of 102 bills and resolutions, along with summaries based on text found at the LIS' Web-site. Our inventory is divided first into "Passed" and "Failed" and second into the nine categories listed above. Twenty-one other

measures that were identical or very similar to measures in our list are noted at the end of the article. No budget bill was passed this year.

In our list, consecutive numbers to the left of each measure are for cross-referencing purposes and have no *legislative* significance. The actual bill or resolution numbers identify a measure's legislative origin, as follows: **HB**: bill started in the House of Delegates; **HJ**: joint resolution started in the House; **SB**: bill started in the Senate; and **SJ**: joint resolution started in the Senate.

Our use of "etc." indicates the necessary omission (due to space) of a substantial portion of the summary provided by the LIS. Abbreviations used for Virginia agencies are listed at the end of this article (page 9).

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"Science Behind the News" will return next issue with a look at non-native, or "exotic," aquatic species.



PASSED

Conservation

- 1. HB 1687 Land Conservation Foundation; funds for natural area protection:** Removes the requirement that a holder or public body must be operating in Virginia for more than five years in order to qualify for a matching grant from the Foundation for the protection of a natural area.
- 2. HB 2076 Election of directors of soil and water conservation districts:** Transfers certain responsibilities regarding elections and candidates for directors of soil and water conservation districts from the Department of Conservation and Recreation (DCR) to the State Board of Elections.
- 3. HB 2177 Staunton Scenic River:** Extends from 10.8 miles to 40.5 miles the segment of the Staunton River that has been designated a state scenic river.
- 4. HB 2303 VDOT contracts:** Mandates that Virginia Department of Transportation (VDOT) contracts require that contractors comply with all requirements, conditions, and terms of such contracts, including environmental permits that are part of the contracts; also addresses penalties for violations.
- 5. HB 2330 Jurisdiction in conservation matters:** Addresses enforcement in federal courts of matters within the jurisdiction of the State Water Control Board (SWCB), the Waste Management Board (VWMB), and the Department of Environmental Quality (DEQ).
- 6. HB 2601 Discharges into state waters; notification required:** Requires any person who discharges or allows discharge of sewage, industrial waste, other wastes, or any noxious or deleterious substance into state waters or a discharge that may reasonably be expected to enter state waters, to promptly, or not later than 24 hours after learning of the discharge, notify the SWCB, the DEQ, or the coordinator of emergency services for the locality expected to be affected by the discharge.
- 7. HJ 627 Lynnhaven River watershed:** Requests the DCR and the Chesapeake Bay Local Assistance Department to work with the U.S. Army Corps of Engineers; the City of Virginia Beach; other appropriate federal, regional, and state agencies; citizen and civic groups; the development and environmental communities; watermen; and the fisheries industry on preparation of a request for approval of a Lynnhaven River watershed study, to coordinate all state agencies with respect to that effort, and to begin work on the study immediately following the effective date of the resolution.
- 8. SB 1247 Regulation of land-disturbing activity:** Requires any person who will be in charge of and responsible for carrying out land-disturbing activities to have a certificate of competence issued by the SWCB. The identification of a certified individual is a prerequisite for the approval of an erosion- and sediment-control plan.
- 9. SB 1251 Grants from Virginia Water Quality Improvement Fund:** Provides that the provisions establishing Water Quality Improvement Grants shall not be construed to prevent the award of a grant to a local government for point or non-point source pollution prevention, reduction, and control programs or for efforts undertaken on state land that is leased to a local government.
- 10. SB 1416 Income tax credit; rainwater harvesting:** Provides, subject to appropriation, grants to local governments from the Alternate Water Supply Assistance Fund, to be used by such localities for entering into agreements with businesses and individuals to harvest and collect rainwater. A related bill, HB 2845 (#67), failed.
- 11. SJ 373 Study; future of Virginia's environment:** Directs the Commission Studying the Future of Virginia's Environment to monitor the implementation of its recommendations and to create opportunities for Commission members to become educated on environmental issues that may require legislative action; findings and recommendations must be submitted to the governor and the 2002 General Assembly.

Drainage, Soil Conservation, Sanitation and Public Facilities Districts

- 12. HB 1877 Erosion control devices within Baylor survey:** Provides that the Marine Resources Commission (VMRC) may allow construction of erosion-control devices in the Baylor survey¹ where it finds, along with other prescribed criteria, the proposed project to be technically and environmentally

¹ According to the Web-site of the VMRC, the Baylor survey was an extensive two-year project in 1894 to locate and map the naturally productive oyster beds, rocks, and shoals in Virginia's tidal waters. These areas, which became known as the "Baylor survey," were then reserved for public shellfishing and cannot be leased or used for other purposes.

acceptable; if “commercially productive” as defined in the *Code of Virginia*, the environmentally preferred erosion control must be utilized.

- 13. HB 2077 Soil and water conservation district boards; chairman:** Requires that directors of soil and water conservation districts designate a chairman from either the elected members of the district board or those members who are appointed by the Virginia Soil and Water Conservation Board.
- 14. SJ 438 Study; implementation of local erosion and sediment control programs:** Directs the Commission Studying the Future of Virginia's Environment to study the implementation of local erosion- and sediment-control programs and local stormwater-management programs; findings and recommendations must be reported to the governor and the 2002 session of the General Assembly; **etc.**

Fisheries and Habitat of Tidal Waters

- 15. HB 1572 Recreational eel pot license:** Authorizes the VMRC to establish a license for individuals who want to catch eels for non-commercial purposes.
- 16. HB 1699 Permits for piers on oyster & clam grounds; time limit for action:** Requires the VMRC to grant or deny permits for piers 100 feet or longer on oyster and clam grounds within 90 days of receipt of a complete application, unless information or circumstances materially alter the conditions under which the permit would be issued; if the VMRC fails to act within such time, the application is deemed approved.
- 17. HB 1897 Exemptions from license requirements for landowner's parents:** Adds parents of a landowner to the list of those who can hunt, trap, and fish within the boundaries of the landowner's property or fish upon any private, permanent extension from such property.
- 18. HB 2032 Exemptions from fishing licensing requirements:** Provides that the VMRC may modify by regulation the exemption for the taking of as much as one bushel of hard crabs and two dozen peeler crabs in any one day for personal use.
- 19. HB 2033 Relaying seed-stock shellfish:** Requires the VMRC to promulgate regulations for the harvesting, transporting, handling, and transplanting of wild and cultured seed oysters and clams from condemned planting areas to healthy waters.
- 20. HB 2294 Hunting, trapping and fishing licenses; point of sale:** Provides that upon implementation of automated point-of-sale licensing systems, recreational fishing licenses issued by the VMRC, as well as hunting, trapping, and fishing licenses issued by the Department of Game and Inland Fisheries (DGIF), shall expire one year from their date of purchase (rather than on December 31, as is the current law).
- 21. HB 2417 Hydraulic dredges; clams:** Prohibits a person from harvesting clams through the use of a hydraulic dredge, or having on board a hydraulic dredge designed for harvesting seafood, unless the person has obtained a permit from the VMRC; exempts those traveling to or from docks for maintenance or repair of boats or equipment or when off-loading catches made in federal waters.
- 22. HB 2493 Oysters; grants for transfer to sanctuary:** Creates a grant program under the VMRC for individuals who grow oysters pursuant to a valid VMRC General Permit for Noncommercial Riparian Shellfish Growing Activities, and who also obtains a receipt evidencing the transfer of at least 500 oysters.
- 23. HB 2497 Certificates of veterinary inspection for fish or invertebrates:**
Provides that ornamental aquarium fish and invertebrate animals are exempt from the requirement of a certificate of veterinary inspection before being imported into Virginia.
- 24. HB 2705 Marine Resources Commission; publication of proposed regulations:** Allows the publication of proposed regulations that have only local application in daily and weekly papers.
- 25. HJ 765 Study; Chesapeake Bay shallow-water areas:** Requests that the Virginia Institute of Marine Science (VIMS), in consultation with appropriate state and federal agencies, local governments, and interested stakeholders, prepare a management plan for shallow-water areas in the Chesapeake Bay and the tidal portion of its tributaries.
- 26. SB 784 Marine Patrol officers; powers:** Clarifies that Virginia Marine Patrol officers have the same powers as sheriffs and other law-enforcement officers to enforce the criminal laws of the Commonwealth.
- 27. SB 820 Potomac River Compact; harvested finfish & shellfish:**
Provides that finfish and shellfish lawfully caught in the waters within the jurisdiction of the Potomac River Fisheries Commission may be possessed, stored, marketed, and otherwise disposed of *elsewhere* in the Commonwealth.
- 28. SB 837 Subaqueous permit exemption:** Exempts landowners who withdraw water for agricultural, silvicultural, or horticultural irrigation on riparian lands, or for the watering of animals on such lands,

from having to obtain a permit from the VMRC, as long as they do not place a permanent structure on the stream or river bed, they comply with any requirements administered by the DEQ under Title 62.1, and the activity does not have adverse impacts to beneficial instream uses.

29. SB 1072 Reporting of ballast water discharge; penalty: Requires that operators of certain commercial vessels file a Ballast Water Control Report form with the VMRC, excludes vessels of the U. S. armed forces.

Game, Inland Fisheries, and Boating

30. HB 1657 Fuels tax; applicability to watercraft: Corrects the Virginia Motor Fuels Act, which was enacted during the 2000 General Assembly Session, regarding shipping documentation, inspection of books and records, and refunds of motor fuel tax.

31. HB 2546 Exemptions from certain licenses for recognized tribes: Provides that licenses to hunt, trap, or fish are not required of members of Virginia-recognized tribes residing in the Commonwealth; **etc.**

32. HB 2607 No-discharge zone on Smith Mountain Lake: Requires game wardens from the DGIF to enforce the SWCB's regulations designating Smith Mountain Lake as a no-discharge zone for boat sewage.

33. SB 1315 "No wake" buoys: Provides that "no wake" buoys or other markers that have been placed prior to July 1, 2001, can be removed only if they are no longer providing for the safe and efficient operation of vessels; the bill also provides that "no wake" ordinances can be enacted for Smith Mountain Lake in order to protect public safety or prevent erosion.

Health

34. HB 2726 Health; on-site sewage evaluations: Requires counties, cities, and towns, in the administration of their own ordinances, to comply with the time limits that currently apply in state law to the Department of Health (VDH) in performing a field check of private evaluations and designs for residential development (the VDH has 15 days to approve or deny a request for an on-site sewage permit for a single lot construction permit and 60 days for multiple lot certification letters or subdivision review).

35. HJ 771 Study; wastewater management: Establishes a joint subcommittee to study the organization, structure, regulations, and policies of the VDH and the DEQ relating to the management and treatment of wastewater.

36. SB 1250 Pilot project for computerization of local septic system data: Requires the Commissioner of Health to implement a pilot project for the counties of Bedford, Franklin, and Pittsylvania to computerize data on septic systems, with the goal of producing data capable of being merged with real estate records, particularly for the areas surrounding Smith Mountain Lake; not to become effective without a General Assembly appropriation for implementation.

Waste Disposal

37. HB 1583 Water and waste authority rates and charges: Deletes a reference to the jurisdiction of the State Corporation Commission (SCC) with regard to fees and charges of water and waste authorities (the SCC has no jurisdiction over such fees and charges).

Waters of the State, Ports and Harbors

38. HB 1728 Official fleet of the Commonwealth: Designates the replicas of the Susan Constant, Godspeed, and Discovery—on display at the Jamestown Settlement Museum—as the state's "official fleet."

39. HB 1758 Boats and vessels; waste discharge regulations. Requires that the SWCB's regulations to control the discharge of sewage and other wastes from boats into Virginia waterways become effective by July 1, 2002.

40. HB 2073 General permits for combined animal feeding operations. Waives the requirement that owners of combined animal-feeding operations certify on their permit registration statement that notice has been given to owners or residents of adjoining property, whenever such registration is to *renew* coverage under a permit where *no expansion* is proposed and the DEQ has not issued any special or consent orders for violations under the existing permit.

41. HB 2121 Ship manufacturing and repair companies: Provides that Tidewater Community College may offer, subject to the approval of the State Council of Higher Education, a three-year program of

- educational instruction in applied sciences and coordinate such program with apprenticeship programs offered by Virginia's ship-manufacturing and ship-repair companies.
- 42. HB 2292 Nontidal wetlands; effective date:** Advances from October 1, 2001, to August 1, 2001, the date on which the comprehensive nontidal wetlands regulatory program becomes effective for linear transportation projects of VDOT.
- 43. HB 2310 Lake-level contingency plans:** Requires that, as part of a Virginia Pollutant Discharge Elimination Permit System permit, a lake-level contingency plan must take into account and minimize any adverse effects of water-release reductions on beneficial uses.² A related bill, HB 2714 (#88) failed.
- 44. HB 2827 Sewage sludge:** Allows localities to adopt ordinances for monitoring the land application of sewage sludge; the state Board of Health is to adopt regulations, by July 1, 2002, requiring persons who land-apply sludge to pay a fee, not to exceed the direct costs to localities of testing and monitoring the application of sewage sludge.
- 45. HJ 622 Study; Chesapeake Bay Preservation Act:** Requests the Joint Legislative Audit and Review Commission to report on the implementation of the Chesapeake Bay Preservation Act; the Chesapeake Bay Local Assistance Department is also requested to submit to the Commission the Department's assessment of the benefits to the environment, along with the costs and effects to state and local governments, of extending the Act to include localities outside "Tidewater Virginia" that are within the Chesapeake Bay watershed. Related measures, **SB 821** (# 93) and **SJ 434** (# 99), failed.
- 46. HJ 828 Knox Creek Reservoir Project:** Expresses the General Assembly's support for the Knox Creek Reservoir Project in Buchanan County.
- 47. SB 1087 Chesapeake Bay 2000 Agreement annual report:** Requires the Secretary of Natural Resources to submit an annual report on specific progress made toward implementing the provisions of the Chesapeake Bay 2000 Agreement.
- 48. SB 1166 Definition of impounding structure:** Expands the definition of an impounding structure under the Dam Safety Act; the bill has a delayed effective date of July 1, 2002.
- 49. SB 1348 Pollutant Elimination Discharge permit:** Requires applicants for individual Virginia Pollutant Discharge Elimination permits authorizing *new* discharges of sewage, industrial wastes, or other wastes into state waters to provide certification from the local county, city, or town that the proposed facility would be consistent with local zoning requirements; the county, city, or town must notify the applicant and the SWCB of the facility's compliance or noncompliance within 30 days or the certification requirement is waived.
- 50. SB 1404 Permits for private sewer facilities:** Provides that the SWCB may grant to an operator of a private sewer facility—if permitted prior to January 1, 2001, and discharging less than 5,000 gallons of effluent per day—a waiver of the requirement to file a plan to protect public health or the environment in the event such a facility closes.
- 51. SJ 351 Study; shipbuilding industry:** Continues the Joint Subcommittee Studying Economic Incentives to Promote the Growth and Competitiveness of Virginia's Shipbuilding Industry; the joint subcommittee must submit its report to the governor and the 2002 session of the General Assembly.
- 52. SJ 401 James River Reserve Fleet:** Memorializes the U. S. Coast Guard to provide funding from the Oil Spill Liability Trust Fund to remove oil contained in the 27 vessels in the Reserve Fleet of the Maritime Administration that are listed as in dire need of scrapping; urges Congress to provide funding sufficient to allow the Reserve Fleet to complete scrapping of the reserve vessels in a timely and responsible manner.

Water and Sewer Systems

- 53. HB 2061 Septic system inspectors; requirements:** Sets minimum requirements for a person to use the title "accredited septic system inspector"; **etc.**
- 54. HB 2114 Fees and charges for sewer services in Virginia Beach City:** Provides that in Virginia Beach delinquent water and sewer connection fees may be included with those unpaid fees and charges that shall constitute a lien against the property in question.

² Beneficial uses include protection of fish and wildlife habitat, recreation, navigation, and cultural and aesthetic values. Lake-level contingency plans are required for surface water impoundments whose primary purpose is to provide cooling water for power generation.

- 55. HB 2312 Mandatory connection to water and sewer systems:** Allows Goochland County to require connection to its water and sewer systems by owners of property that may be served by such systems if the property, at the time of installation of such system, does *not* have a then-existing, correctable, or replaceable domestic supply of potable water and a system for the disposal of sewage adequate to prevent the contraction or spread of diseases.
- 56. HB 2358 Regulation and inspection of septic tanks in Augusta County:** Allows Augusta County to require any person desiring to install a septic tank to secure a permit to do so; the county may prescribe reasonable fees, not to exceed \$50, for the issuance of such permits.
- 57. HB 2532 Public-private partnerships for provision of water and waste services:** Provides that the power granted to localities, water authorities, and wastewater authorities to enter into contracts with private entities allows these authorities to enter into public-private partnerships for the establishment and operation of water and sewer systems.
- 58. SB 876 Payment by subdivider of pro rata share of certain costs:** Provides that when a locality determines the proportionate shares to be borne by each subdivider or developer within an area for providing certain sewer, water, and drainage facilities, such shares shall not exceed the amount necessary to protect water quality based upon the *pollutant loading caused* by the subdivision or development.
- 59. SB 1062 Adoption of water-supply emergency ordinances:** Authorizes localities to adopt water-supply emergency ordinances where a water-supply emergency is *reasonably likely to occur* if water-conservation measures are not taken (currently, a locality may adopt a water-supply emergency ordinance only if it finds that a water-supply emergency *already exists*).

FAILED

Conservation

- 60. HB 712 Natural Resources Policy Act; created:** As recommended by the Commission on the Future of Virginia's Environment, would have repealed the existing Environmental Impact Statement review process (which applies to state projects using \$100,000 in state funds) and replaced it with a natural resource impact review process applicable to actions utilizing \$500,000 or more of state-provided funds for the acquisition of an interest in land; for the construction of any new facility; or for the improvement, expansion, support, or maintenance of an existing facility.
- 61. HB 881 Environmental laboratory certification programs:** Would have provided an exemption from the Division of Consolidated Laboratory Services' laboratory-certification regulations to laboratories in municipal treatment facilities serving less than 20,000 persons and owned by political subdivisions of the Commonwealth, including entities created pursuant to the Virginia Water and Waste Authorities Act.
- 62. HB 1601 Greenways and Blueways Fund created; issuance of special license plates:** Would have authorized the issuance of "revenue sharing" license plates to supporters of greenways and blueways; for each set of plates issued (after the first 1,000 sets), \$15 would have gone to the DCR for greenways and similar pedestrian recreation and hiking trails throughout the Commonwealth.
- 63. HB 2002 Creation of a laboratory certification and accreditation program:** Would have required the Division of Consolidated Laboratory Services to establish a program for the certification of government and private laboratories conducting tests, analyses, measurements, or monitoring required under the State Air Pollution Control Law, the Virginia Waste Management Act, or the State Water Control Law; would have required the state Division of Consolidated Laboratory Services to establish a program based on the National Environmental Laboratory Accreditation Conference standards.
- 64. HB 2006 Chesapeake Bay Local Assistance Board:** Would have provided that the Virginia Land Conservation Foundation may make direct (rather than matching) grants from the Virginia Land Conservation Fund to counties and municipalities; **etc.**
- 65. HB 2639 Water Quality Improvement Fund:** Would have required that a minimum of \$10,000,000 be allocated annually from the state general fund to the Water Quality Improvement Fund (currently, the appropriation to the Fund is an amount equal to 10 percent of the annual general fund revenue collections that are in excess of the official estimates in the general appropriation act, plus 10 percent of any unreserved and unappropriated general fund balance at the end of each fiscal year).

- 66. HB 2667 Siting of landfills in Mecklenburg County³:** Would have authorized Mecklenburg County to construct a landfill closer to an existing water supply intake or reservoir than is currently allowed by law, if the DEQ director found that the distance would not be detrimental to human health and the environment; would have provided that a new landfill in Mecklenburg County may be sited in a wetland.
- 67. HB 2845 Income tax credit; rainwater harvesting:** Would have provided an individual and corporate income tax credit—up to \$50,000 for corporations and up to \$2,000 for individuals—for the costs of rainwater-harvesting systems. A related bill, SB 1416 (# 10), passed.
- 68. HJ 618 State navigator:** Would have requested the governor to create the position of “State Navigator.”
- 69. SB 705 Dumping of motor oil from used oil filters and anti-freeze:** Would have made it unlawful to discharge motor oil from used oil filters or anti-freeze into or upon state waters, lands, or storm drain systems; responsible individuals would have been subject to the same criminal and civil penalties as an owner of a petroleum-storage tank.
- 70. SB 1011 Chesapeake Bay Local Assistance Board:** Would have given the Chesapeake Bay Local Assistance Board authority to require the periodic pump-out of on-site sewage-treatment systems (septic tanks), but the Board would have been required to provide an exemption for owners of septic tanks who submit (to appropriate local government officials) documentation from a qualified inspector that their septic tank is functioning properly.
- 71. SB 1335 Siting of landfills:** Would have reduced from five miles to two miles the distance that a new landfill must be separated from an existing public water-supply intake of groundwater.
- 72. SJ 167 Study; preserving open-space:** Would have requested the DCR to study future land use along Paradise Creek (located in the Norfolk Naval Shipyard within the City of Portsmouth) and to recommend ways the state might participate in the development of a public park and recreational area.

Drainage

- 73. HB 1650 Drainage easements:** Would have required VDOT to maintain highway drainage easements, both on and off highway rights-of-way.

Fisheries and Habitat of Tidal Waters

- 74. HB 2703 Saltwater recreational fishing license:** Would have removed the seaside exemption from the requirement to have a saltwater fishing license when fishing in tidal waters.
- 75. SB 621 Female crabs; penalties:** Would have made it unlawful to catch, hold, possess, offer for sale, sell, offer to purchase, or purchase an egg-bearing female crab or a female crab from which the egg pouch or sponge has been removed; commercial fishers would have been exempt under certain conditions.
- 76. SB 851 Marine Patrols Fund; portion of sales and use tax revenues:** Would have provided for some of the revenue generated by a two-percent sales and use tax collected from the sale of saltwater fishing equipment be deposited into the Marine Patrols Fund, with the remaining amount deposited into the Game Protection Fund (currently, *all* of such revenues are deposited into the Game Protection Fund).

Game, Inland Fisheries, and Boating

- 77. HB 901 Duck blinds:** Would have reduced from two to one the number of stationary duck blinds that riparian landowners, and persons or clubs who do not have riparian rights, may have licensed; also would have reduced the distance that a floating blind must maintain from a stationary blind and allowed hunters to retrieve downed waterfowl on other landowners' property, provided the hunters were unarmed.
- 78. HB 1573 Prohibited ammunition while hunting wild birds and animals:** Would have made it a Class 3 misdemeanor to use non-expanding types of ammunition when hunting wild birds or mammals.
- 79. HB 1675 Watercraft sales & use tax exemption; commercial fisher:** Would have exempted from the watercraft sales and use tax any watercraft purchased by a commercial fisher for his or her own use (current law exempts watercraft *constructed* by a commercial fisher for his or her own use).
- 80. SB 1185 Beaver damage:** Would have allowed landowners whose property has been damaged due to the damming of a water body by beaver activity to seek injunctive relief (and legal fees) against the landowner upon whose property the beaver are located.

³ Passed by the legislature but vetoed by the governor; veto sustained.

Health

81. HB 1682 Testing of certain well water: Would have authorized Warren County to establish standards for private wells and reasonable testing requirements to determine compliance with various federal or state drinking-water standards, prior to the issuance of a building permit.

Mines and Mining

82. HB 880 Mining activity: Would have prohibited the Department of Mines, Minerals and Energy (DMME) from approving permit applications for coal mining if the proposed area were located under impoundments of water used for public water-supply purposes, watercourses that supply a significant quantity of water to such impoundments, or adjacent areas reasonably necessary to protect the public water supply; existing mining under such features would also have been subject to suspension if DMME found imminent danger to a public water supply.

Waters of the State, Ports and Harbors

83. HB 1907 Potomac River Riparian Rights and Permitting Act: Would have authorized the SWCB to establish requirements for the withdrawal of water from the Potomac River and to issue Potomac River Water Appropriation Permits (water appropriation permits) for such withdrawals.

84. HB 2031 Chesapeake Bay Bridge and Tunnel: Would have provided that appointments and reappointments of individual members to the Chesapeake Bay Bridge Tunnel Commission be made by the governor from a list of at least three individuals provided by the local governing body for which the appointment or reappointment is being made.

85. HB 2384 Wetlands mitigation: Would have prohibited the Commonwealth from mitigating the loss of natural wetlands by *creating or restoring* wetlands in areas *outside* the hydrologic unit in which those natural wetlands are located. See related HB 2826 (# 90), which also failed.

86. HB 2535 Clinch River state scenic river: Would have designated an 18.5-mile segment of the Lower Clinch River (in Russell and Scott counties) as part of the State Scenic River System.

87. HB 2572 Nontidal wetland program: Would have eliminated duplication of state and federal permitting requirements for wetland activities covered by a federal nationwide or regional permit; would also have decreased the time allowed for the SWCB to seek the State Programmatic General Permit from the U. S. Army Corps of Engineers; **etc.**

88. HB 2714 Lake-level contingency plans: Would have provided that lake-level contingency plans required in connection with the issuance of a Virginia Pollution Discharge Elimination System permit not be designed or implemented so as to conflict with an existing order issued by the SCC establishing a minimum release rate for an impoundment structure. A related bill, HB 2310 (# 43), passed.

89. HB 2730 Advisory referendum; King William reservoir: Would have provided for an advisory referendum in King and Queen County and King William County at the November 2001 election on the question of whether a proposed reservoir to supply water for Newport News and the Peninsula should be built in King William County.

90. HB 2826 Condemnation of wetlands: Would have prohibited the state government from compensating for the loss of wetlands by *acquiring* condemnation wetlands that are located *outside* the U. S. Geological Survey hydrologic unit in which the wetlands loss occurs. See related HB 2384 (# 85), which also failed.

91. HJ 690 Study; water quality programs: Would have requested the Secretary of Natural Resources to study and conduct an inventory of Virginia's water-quality programs.

92. SB 684 Firefighting on Hampton Roads: Would have required the Virginia Port Authority to purchase a response vessel to fight fires in Hampton Roads and on adjacent property.

93. SB 821 Expansion of the jurisdiction of Chesapeake Bay Preservation Act: Would have expanded coverage of the Chesapeake Bay Preservation Act from Tidewater Virginia to include all localities within the Chesapeake Bay watershed; see related HJ 622 (# 45), which passed.

94. SB 831 Economic development; Maritime Investment Act: Would have established a grant program to be paid, subject to appropriation, from the Virginia Maritime Investment Partnership Grant Fund; the program would have provided grants to eligible ship-repair companies.

- 95. SB 978 Chesapeake Bay Bridge and Tunnel:** Would have prohibited appointment or reappointment of local elected officials and members of the General Assembly to the Chesapeake Bay Bridge and Tunnel Commission, effective July 1, 2001.
- 96. SB 1256 Chesapeake Bay Preservation Act; civil penalties:** Would have required that, when a person violates a local ordinance related to Chesapeake Bay Preservation Areas or other legal order authorized under the ordinance, the penalty shall include legal and investigative fees and expenses in addition to civil penalties.
- 97. SB 1272 Nontidal wetlands:** Would have delayed from October 1, 2001, to October 1, 2002, the date on which the more comprehensive nontidal wetland regulatory program becomes effective; would also have required that the state's nontidal wetlands regulations be no more stringent than federal requirements.
- 98. SJ 213 Study; water quality monitoring system:** Would have directed the Joint Legislative Audit and Review Commission to study the progress made by the DEQ toward full implementation of the Water Quality Monitoring, Information and Restoration Act.
- 99. SJ 434 Study; Chesapeake Bay Preservation Act:** Would have requested the Chesapeake Bay Local Assistance Board to report on the implementation of the Chesapeake Bay Preservation Act; see related measure, HJ 622 (# 45), passed.

Water and Sewer Systems

- 100. SB 613 Resources Authority:** Subject to approval by the U. S. Environmental Protection Agency, would have allowed the Virginia Resources Authority—with the prior approval of the Board of Health and the state treasurer—to pledge funds in the Water Supply Assistance Grant Fund as security for bonds of the Authority; **etc.**
- 101. SB 616 Water Supply Revolving Fund:** Would have transferred administration of the Virginia Water Supply Revolving Fund from the Board of Health to the Department of Housing and Community Development.
- 102. SB 803 Corporations; water and sewer utilities:** Would have provided that property owners' associations that are water and sewer utilities may maintain common areas, which shall be deemed related or incidental to its stated business as a public service company; would also have permitted non-stock corporations to engage in the business of a water utility.

Related Measures Not Listed Separately Above

Passed

HB 2602: incorporated into HB 2330, # 5.
 SB 817: identical to HB 2312, # 55.
 SB 1012: identical to HB1687, # 1.
 SB 1043: identical to HB 2497, # 23.
 SB 1052: identical to HB 2303, # 4.
 SB 1243: identical to HB 2292, # 42.
 SB 1285: identical to HB 2601, # 6.
 SB 1297: identical to HB 2330, # 5.
 SB 1301: identical to HB 2607, # 32.

Failed

HB 1217: similar to HB 2002, # 63.
 HB 2240: identical to HB 1650, # 73.
 HB 2455: similar to HB 881, # 61.
 HB 2484: similar to SB 851, # 76.
 HB 2661: similar to SB 1250, # 36, which passed.
 SB 7: similar to SB 831, # 94.
 SB 573: similar to SB 831, # 94.
 SB 712: similar to HB 2002, # 63.
 SB 1344: identical to HB 2667, # 66, which failed by veto.
 SB 1345 (vetoed): identical to HB 1650, # 73.
 SB 1411: similar to SB 613, # 100.
 SB 1414: similar to SB 616, # 101.

Abbreviations Used for Virginia Agencies

DCR—Dept. of Conservation and Recreation
 DEQ—Dept. of Environmental Quality
 DGIF—Dept. of Game and Inland Fisheries
 DMME—Dept. of Mines, Minerals, and Energy
 SCC—State Corporation Commission
 SWCB—State Water Control Board

VDH—Dept. of Health
 VDOT—Dept. of Transportation
 VIMS—Institute of Marine Science
 VMRC—Marine Resources Commission
 VWMB—Waste Management Board

Our Feature on Water Legislation in 2001 continues...

Water Issues at a Sample of Virginia Newspapers

Each year *Water Central* follows our inventory of General Assembly water legislation with a sample of perspectives on that legislation by observers around the state. In years past we've sought opinions from legislators, environmental advocates, lobbyists, government staff, and a random sample of *Water Central* readers. This year, we decided to see what editors of the state's newspapers had to say. At papers large and small, daily and weekly, editors are expected to know what their readers will find interesting and important, keep up with political and governmental events (such as legislative sessions), and decide whether those events will affect their communities.

We contacted 14 newspapers and tried to interview the editor (at smaller papers) or the legislature reporter (at larger ones). (A list of these newspapers is at the end of this article, on page 13.) We asked them what they considered to be noteworthy water-related legislation from the recent General Assembly and to comment on the results they expected from bills that were passed. We also hoped to learn about current water-related issues in

their local areas, whether or not there had been any related legislation.

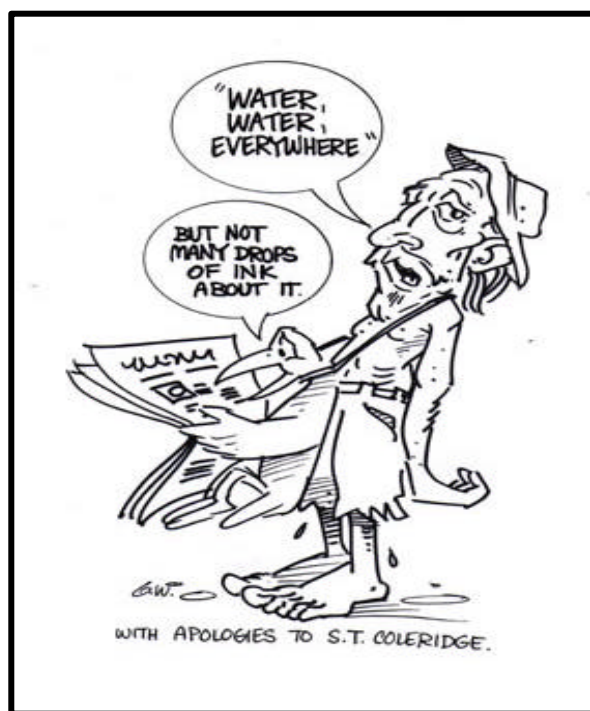
Two things became clear from these conversations. First, the budget battle between the governor and the 2001 General Assembly dwarfed all other stories. Second, without a dramatic event such as a drought or flood, water-related issues aren't at the top of most editors' lists of concerns. As a result, only a few of the editors were particularly informed about and focused on water issues.

But almost everyone with whom we spoke did make informative comments about the *top* issues influencing people's lives in their areas. The reasons editors cited for *not* paying close attention to water reveal the local realities in Virginia within which water-resource use and management are occurring. Let's turn now to comments from the 11 editors with whom we had substantive conversations.

Hello, Editor? How's the Water?

•**Rebecca Jackson-Clause**, editor of the *Bedford Bulletin*, was preparing her paper's coverage of the dedication of the national D-Day Memorial when we spoke to her. The memorial, in fact, figured more into her comments than the General Assembly session. She said the memorial and the tourism it is expected to bring symbolize the major concerns in her community, and water figures into those concerns.

"Right now we're getting a lot of people moving into this area," Ms. Jackson-Clause said. "We're getting retirees drawn to Smith Mountain Lake and small-business owners attracted to the tourist trade, and it's causing lots of development. The most immediate strain is on the school system, and we're losing farms to housing tracts. But I'd say our drinking water system and the sewer system are going to be showing their ages, too. And if we keep growing the way we are now, they'll need to be updated in the near future."



Ms. Jackson-Clause wasn't aware of any legislation aimed at studying the needs of her community or targeted toward improving its water system, but she said her paper would advocate for them in coming months.

•In Prince Edward County, at the *Farmville Herald*, editor **Ken Woodley** pointed to House Bill 2827 (see # 44 in the previous story, p. 5) as legislation that has drawn some attention from his paper and his readership. The bill allows localities to monitor the application of sewage sludge on agricultural land as a fertilizer. Farmville was eager to test such applications, Woodley said, and didn't wait long after the legislature gave the green light.

The bill allows local governments both monitor the applications and to assess fees (on those wishing to use the sludge) to pay for the efforts. "Farmville lives up to its name," Woodley said. "We've got lots of [farms] around here, and farmers are always interested in better, cheaper ways to fertilize their fields, so there were several willing to pay the fees to get biosolids from the water treatment plant. They're testing the stuff right now."

•**Amy Hauslohner**, editor at *The Gazette* in Galax, close to the North Carolina border, said her paper paid attention to no particular water-related legislation during the session. "There's a proposal to build a regional water system here, but it hasn't reached the legislature yet, and may take quite a while, partly because Galax isn't going to be too excited about it," said Hauslohner. She explained that the town already has a fairly modern treatment plant and won't be eager to share costs for a new one with surrounding counties. She said the other water-related concern in the region is a proposal by Duke Power to build a power plant on the nearby New River.

•Just north and west of Galax is Marion, where editor **Steven McKay** at the *Smyth County News & Messenger* also gave voice to relatively mild concern about local water issues. He said his paper did not editorialize about any particular environmental issues in the past year and was not looking to the

legislature for action on any related issues in its region.

"The [Virginia] Department of Environmental Quality has detected pretty high levels of mercury in a stretch of the North Fork of the Holston River near Saltville," McKay said, "and there's a lot of concern about getting that cleaned up. But there wasn't any effort made to do it in this legislative session." McKay was aware that the legislature did *not* manage to secure a base of funding for the state's Water Quality Improvement Fund (see HB 2639, #65 in the previous story, p. 6), which might be a source of funds to help remove the mercury contamination. But he said he believed that the U. S. Environmental Protection Agency would take the primary role in the clean-up once it is underway.

•At the *Martinsville Bulletin*, in Virginia's Southside, editor **Jennie Ray** said, "Water is one problem we don't have around here." Her region is home to the declining textile industries, Ray said, and is searching for alternatives as well as trying to stanch a population exodus. "We actually use our abundant and relatively clean water as a marketing tool," Ray said. She said the paper looked to the legislature this year for business incentive packages and funding for retraining efforts rather than environmental or water-related legislation.

•About ninety miles north and east of there, in the Shenandoah Valley, editor **Dave Fritz** at the *Daily News Leader* in Staunton testified to an almost completely opposite set of concerns than those in Southside. "We've got no water-related problems at the moment," he said, "and the paper paid attention mostly to the budget battle in the recent General Assembly. But we're starting to be more aware of a kind of suburban sprawl taking place even in our small town.

"Right now there are just pockets of residential development here and there, but it's happening," he added. "And for us it highlights how little control our localities have over this kind of thing." Fritz said his paper looks for ways to illustrate to its readers the high degree of influence it believes state government has in local

development as well as water and land use issues. He suggests these issues are “stable” at the moment, but that he foresees increasing competition for water resources among his and nearby municipalities in the near future. “Then,” he said, “we’re going to have to look to the legislature to facilitate regional cooperation, because we’re almost barred from initiating it on our own.”

•Fritz’s concern about development was echoed by **Martin Casey**, editor of the *Loudoun Times-Mirror* in Leesburg, near the epicenter of northern Virginia’s rapid growth. “We’re the fastest growing county in the state, and what we care about right now is having the schools and roads we need to accommodate that growth,” Casey said.

“If there’s a concern about water here, it probably comes down to ‘Will we have enough?’” he added. He said local authorities have not focused a lot of attention on the question, however, so his paper has not made it an issue.

“We’re part of a chain of small-town papers,” Casey explained. “We don’t report a lot of state news unless it has a pretty direct impact on Leesburg. And there was no legislation this year that seemed to have much impact on us except for the budget fight. I guess you could say there’s not a lot of worry about water quality or availability here, or we would be covering it. It’ll probably come up, but it hasn’t yet.”

•Over on the Atlantic side, things are quite different. **Will Corbin**, editor of the *Daily Press* in Newport News, says he has two full-time reporters in Richmond during each legislative session, and that water issues are of particular concern.

“We don’t have a lot of the fresh stuff [water] around here, so we’re always looking for ways to get it, and if we can get state government to assist us, so much the better.” Corbin said there were no specific bills or resolutions in the recent General Assembly that would have assisted the region’s efforts to assure more freshwater reserves, but that the legislature may be asked to get involved in an effort to build a reservoir that the Army Corps of Engineers appears ready to reject.

“The Corps has been studying [the proposed King William Reservoir’s] feasibility for years,” Corbin said, “and the word we get is that they don’t believe it’s workable. That’s forcing us to go back to questions about the economics of desalinization, or shipping in potable water from somewhere else. It could be an expensive mess.”

Corbin said he’s not certain local leaders will try to get the state involved in changing the Corps’ assessment, but admits he wouldn’t be surprised to see it introduced in an upcoming legislative session.

•In Warrenton, where **Robin Earl** edits the *Fauquier Times-Democrat*, water concerns appear to reside mostly in the “impaired waters” distinction nine of the area’s streams and rivers have received. “Warrenton’s a growing city, but we’re still pretty rural here,” Earle said. “We pay a lot of attention to nutrient-management plans and agricultural runoff into the Rappahannock and those other streams.”

She said her paper carried some wire-service stories from Richmond during the General Assembly, but nearly all were about the budget impasse between the governor and the legislature, and none, to her memory, were on water-related issues.

“We’ll probably need a new treatment plant before too long, but for right now we’re just aware that tourists like to hike and kayak along clean streams, and the focus is on getting them cleaned up.”

•In the central part of the state, at Charlottesville’s *Daily Progress*, managing editor **Lou Hatter** said, “I’ll tell you up front, we were like everyone else and paid most of our attention to the budget fight in the legislature this year.” Water-related legislation received little or no coverage at his paper.

“But I don’t think it will be that way for long,” he said. “Several of the counties in this area cooperated on a regional water study recently that really seems to have gone haywire, and that may be something the legislature will have to fix.” He explained that only portions of the study’s conclusions have been released, and that they appeared vague and even contradictory.

“Water availability is a big, big issue here because we’re growing so quickly,” Hatter said, “so our main interest is in learning whether we’ll have enough to support this growth. And we still don’t know that because this regional water study seems so inconclusive right now.”

•Finally, editor **John Edwards**, at the *Smithfield Times* in Isle of Wight County, said his paper’s interest in the General Assembly was directed at the “package of issues” local leaders lobbied for, and that there was little to do with water in that package. “We’ve got a little concern about too much fluoride being detected in the artesian well water the city depends on,” he said, “and we’re probably going to be opposed to an attempt to have the federal government declare a section of a creek near the town an ‘exceptional waterway,’ but that’s about the extent of our water issues locally.”

He explained the paper’s expected opposition to the exceptional waterway distinction would be based on recent growth in and around Smithfield—related to the growth experienced in nearby Newport News and Norfolk—and there’s worry that it could block development in a key section of town.

Conclusion

The editors we interviewed were not, as a group, highly focused on state water legislation, nor on water issues in general.

But, although they weren’t closely watching the water-related activities in the legislature, their observations did provide a “snapshot” of local water concerns around the state. In that snapshot, water-related issues do get some attention, but they are mostly overshadowed by more immediate problems linked either to rapid development or struggling economies.

In science, “failed” experiments often provide answers to questions the researcher didn’t think to ask. In our survey of editors, we asked “What water issues are you following?” Based on the answers we got, the better question might be, “What issues come first, before water concerns follow?”

–By David Mudd

Newspapers Contacted for this Article

The Bedford Bulletin
The Daily News Leader (Staunton)
The Daily Press (Newport News)
The Daily Progress (Charlottesville)
The Fauquier Times-Democrat (Warrenton)
The Farmville Herald
The Gazette (Galax)
The Harrisonburg Daily News Record
The Loudoun Times-Mirror (Leesburg)
The Martinsville Bulletin
The Roanoke Times
The Smyth County News & Messenger
 (Marion)
The Smithfield Times
The Warren Sentinel (Front Royal)

TEACHING WATER

Especially for Virginia’s K-12 teachers

This Issue and the Virginia Standards of Learning

To the right are suggested Virginia Standards of Learning (SOLs) supported by this issue’s Feature and For the Record sections. *Water Central* welcomes readers’ comments on whether the articles actually do, in fact, help teachers with the standards listed or with others. Abbreviations: BIO=biology; ES=earth science; LS=life science.

Feature Articles—Virginia General Assembly

Science SOLs: 6.11, LS.12, ES.9.

Social Studies SOLs: 7.2, 7.4, 12.7, 12.8, 12.13.

For the Record—Coastal/Marine Resources

Science SOLs: 3.6, 4.8, 5.6, 6.11, LS.10, LS.12, ES.7, ES.11, BIO.9.

Social Studies SOLs: 10.9.

Computer Technology SOLs: 5.3, 8.4.

IN AND OUT OF THE NEWS

Newsworthy Items You May Have Missed

The following summaries are based on information in the source(s) indicated at the end of each item. Selection of this issue's items ended June 1, 2001. Unless otherwise noted, all localities mentioned are in Virginia. Don't forget that you can follow water-related news at the Water Center's Daily News Update, on-line at www.vwrrc.vt.edu.

In Virginia...

•**Tidal wetlands in Virginia** were the subject of approximately 1150 permit applications in 2000 to local wetlands boards and the Virginia Marine Resources Commission (VMRC). Annual tidal wetland permit applications decreased by about 20 percent from 1990 to 1995 but have increased about 60 percent since 1995. The permitted activity in 2000 impacted 20.7 miles of shoreline alterations and a total of 22.6 acres; the majority of acres impacted were non-vegetated. The shoreline-alteration mileage was about average for the period since 1988, but the acreage impacted was among the lowest since then. Mitigation activity restored 3.3 acres of tidal wetlands, compared to the 22.6 acres impacted (not all the impacted acres were "direct losses" of wetlands). The Wetlands Program of the Virginia Institute of Marine Science generated these data. (*Virginia Wetlands Report*, Winter/Spring 2001)

•People are evaluating the **potential impacts on nontidal wetlands** of the January 2001 Supreme Court ruling on "isolated waters" (please see *Water Central*, April 2001, p. 15). In the case of *Solid Waste Agency of Northern Cook County [Illinois] vs. U. S. Army Corps of Engineers*, known as the **SWANCC case**, the Court held that the Corps' regulatory jurisdiction under the Clean Water Act (CWA) does not extend to isolated waters—that is, waters *not* connected to interstate waters, to navigable waters, or to a tributary system. Prior to the ruling, the Corps and the U. S. Environmental Protection Agency (EPA) had maintained that the use of isolated water bodies by migratory waterfowl could affect interstate commerce. This interpretation, rejected by the ruling, allowed isolated waters to be considered part of the "waters of the United States," in the language of the CWA.

Predictions about the eventual effects of the SWANCC ruling range from 10 to 80 percent of wetlands being removed from CWA jurisdiction. The ruling reportedly has also led to a variety of

new administrative conflicts and legal challenges related to wetlands jurisdiction.

One immediate effect of the SWANCC ruling has been to turn attention to whether *state* wetland regulatory programs apply to such waters. A recent analysis by the Association of State Wetland Managers showed that, of the 26 states with some nontidal wetland regulatory program, 15—including Virginia and Maryland—have an "isolated freshwater wetland" component. (*Inside EPA's Water Policy Report*, 4/23/01; and *National Wetlands Newsletter*, March-April 2001)

•**In another federal court case** related to the interpretation of the Clean Water Act, the U. S. Court of Appeals for the Fifth Circuit ruled in May that "**intermittent streams**" (containing water only during times of high rainfall) do not qualify as "navigable waters." This would, among other effects, preclude regulation—under the CWA or the federal Oil Pollution Act—of discharges into intermittent streams. (*Inside EPA's Water Policy Report*, 5/21/01)

•In March, the **Fairfax County Stream Protection Strategy Baseline Study** was released. County staff members collected biological and habitat data from 114 county sites, including data from volunteer stream-monitoring groups. The results identify three stream-management categories: 31.5 percent of the county was classified as a *Watershed Protection Area*, with the highest water quality; 7.2 percent as *Watershed Restoration Level 1*, meaning streams are somewhat degraded but have a high potential for restoration; and 61.3 percent as *Watershed Restoration Level 2*, meaning streams there have the worst conditions, with significantly less potential for successful or affordable restoration. More information about this report is available calling (703) 324-5500. (*Conservation Currents*, Northern Va. Soil and Water Conservation District, March-April 2001)

•**Jordan's Branch in downtown Richmond got some special treatment** in March from The Charterhouse School, which serves at-risk children and their families. About 40 middle-school students along with faculty spent a day cleaning up the stream and planting streamside vegetation. School faculty, students, and students' families have returned several times to continue their efforts. (*Bay Journal*, May 2001)

•In its **"2001 Report Card for America's Infrastructure"** (issued in March), the American Society of Civil Engineers (ASCE) estimated that **Virginia needs to invest \$4.3 billion over the next 20 years** to repair, replace, or upgrade sewage-treatment facilities, and \$2.9 billion over the same period to repair or replace drinking-water systems. Virginia is not alone: A March 2001 report by the EPA stated that \$150.9 billion is needed nationwide over the next 20 years for drinking-water infrastructure to comply with the Safe Drinking Water Act. Both reports are available on-line: the ASCE report at www.asce.org/reportcard; the EPA report at www.epa.gov/safewater/needs.html. (*Arizona Water Resource*, March-April 2000)

But the projections go even higher. The Water Infrastructure Network (WIN), which includes municipal groups, environmentalists, and water professionals, has estimated that nearly \$1 *trillion* is needed over the next 20 years for all water-related infrastructure (not just infrastructure for drinking water). WIN's estimate was challenged, however, by the Congressional Budget Office in testimony in the House of Representatives on March 28. (*Inside EPA's Water Policy Report*, 5/7/01)

•Recent reports and articles have begun identifying the **details of meeting the goals of the Chesapeake Bay 2000 agreement**. First, according to a February 2001 report by the Chesapeake Bay Commission and the Trust for Public Land, meeting the agreement's goal of preserving 20 percent of the watershed as open space by 2010 means protecting an additional 1.1 million acres of land by then. Currently, 6.7 million acres of land in the watershed (about 17.2 percent) are under protection. The report estimated the cost for preserving the 1.1 million acres at \$1.8 billion.

Second, the most recent National Resource Inventory (NRI), released every five years by the Natural Resource Conservation Service, indicates that 128,000 acres of the Bay watershed were developed (broadly defined) each year from 1992 to 1997. Previous reports showed that from 1982

to 1987, about 60,000 acres per year were developed; from 1987 to 1992, about 80,000 acres per year. The 2000 Bay Agreement calls for a 30-percent reduction by 2012 in the rate of land development. Using the NRI figures, that would mean reducing development to about 90,000 acres per year.

Third, according to an April 2001 report by the Chesapeake Bay Foundation, meeting all the clean-up goals in the Bay Agreement will cost an estimated \$8.5 billion over the next 10 years. That total would consist of \$1 billion for wastewater treatment plant improvements; \$2 billion for implementing farm-related conservation plans; \$2 billion to put stream-side buffers in place; \$2 billion for land conservation (this is the same category of activity referred to in the preceding paragraph, estimated at an extra \$200 million in this report); \$1 billion for urban stormwater-management improvements; and \$500 million for oyster- and wetland-restoration activities. In comparison, Congress in 2000 approved \$7.8 billion over 20 years for land conservation and other restoration activities in the Florida Everglades. (*Washington Post*, 2/12/01; *Bay Journal*, March 2001 and May 2001)

•Two recent developments illustrate the **kind of actions contemplated in Bay 2000 Agreement**. In the first development, the Maryland Board of Public Works in April approved a \$7.2 million arrangement to preserve over 300 acres of land around the Bay in Anne Arundel County. The arrangement involves the Virginia-based Conservation Fund, Maryland's "Program Open Space," the Maryland Dept. of Natural Resources, the Chesapeake Bay Foundation, and the landowners. In the second, the Chesapeake Biological Laboratory—operated by the University of Maryland—announced in May a three-year, \$670,000 project to restore 63 acres of aquatic vegetation, oyster reefs, and other habitat at the mouth of the Patuxent River, in Calvert County. (*Baltimore Sun*, 4/19/01 and *Washington Post*, 5/31/01)

•There are some reports of **lowered groundwater levels in Bedford County**. One well-drilling company owner has noted that the average depth to water has increased from about 200 feet to about 360 feet, while the county executive director of the Farm Service Agency said people are digging wells to 500—600 feet, rather than the more usual 250 feet. (Neither man specified a time period or areas within the county where the changes were observed). Suggested factors include low rainfall over the

last three years, and the county's recent growth that has increased both water usage and the percentage of pavement and other impermeable surfaces. (*Lynchburg News and Advance*, 4/24/01)

- The **Blue Crab population in the Chesapeake Bay** continues to be scrutinized and cause concern. The Virginia Institute of Marine Science reported that the breeding population has decreased 80 percent since 1988, and a National Oceanic and Atmospheric Administration (NOAA) study reported that the population of female crabs is less than the level in 1968, the previous record low (this latter estimate has been challenged by some commercial crab fishers).

In 2000, Virginia and Maryland agreed to reduce the commercial crab harvest by 15 percent over three years. This past April, the Virginia Marine Resources Commission voted certain restrictions on commercial and recreational crabbing, designed to accomplish this year's intended five-percent reduction. In Maryland, the legislature adopted a licensing program and set catch limits for recreational crabbing, while the governor imposed regulations restricting the time commercial crabbers are allowed to work. (*Hampton Roads Daily Press*, 4/25/01 and *Baltimore Sun*, 5/14/01)

Meanwhile, NOAA is funding a three-year, \$280,000 study by North Carolina State researchers to help identify Blue Crab migration patterns within the Bay. The researchers will fit 500 crabs with devices to record and transmit readings of salinity and pressure; the salinity readings will indicate location within the Bay, while the pressure readings indicate depth. (*Richmond Times-Dispatch*, 2/12/01)

- In April, the **U. S. Environmental Protection Agency (EPA) charged the Airston Group**, a Fairfax County home developer, with over 100 violations of the Clean Water Act, specifically under stormwater regulations issued in 1992. This is the **first such action against a home developer in Virginia**. Airston is under order to correct erosion and runoff problems at its Governor's Run development that, according to the EPA, have resulted in sediments flowing into privately owned Lake Martin in Oakton. (*Washington Post*, 4/26/01)

- A recently released U. S. Geological Survey (USGS) report, **Water Quality in the Kanawha-New River Basin in West Virginia, Virginia, and North Carolina, 1996—98**, indicates that water quality in the Kanawha River and its major tributaries is "generally good for drinking-water supply, recreation, and the protection of fish and

other aquatic life." But several problems were identified: in coal-mined areas, a considerable number of household wells have high sulfate, iron, or manganese; aquatic organism communities were impaired in streams in heavily mined areas; high bacteria levels were found in 26 percent of samples from major rivers and 43 percent of samples from smaller streams; and radon concentrations were high in groundwater and in many household wells. The report is available from by calling (888) ASK-USGS; request Circular 1204. (*USGS News Release*, 5/4/01)

- The Regional Water Supply Committee of the Lord Fairfax Planning District Commission (located in Front Royal) has been studying the **possibility of a regional water authority for the Northern Shenandoah Valley**. The committee currently includes representatives from Frederick, Clarke, and Shenandoah counties and the city of Winchester. The group has hired two private consultants to conduct the \$50,000 study. Projections show the population of the area increasing from about 138,000 in 2000 to over 320,000 in 2050. The North Fork of the Shenandoah River currently provides water for much of the area. Consultants' proposals include regional water-treatment plants on the main stem Shenandoah River and an upgrade to Winchester's existing treatment plant on the North Fork. (*Winchester Star*, 5/11/01)

- Residents of **Patrick County** have been debating both a **proposed natural gas pipeline** that would pass through the county and a **proposed "scenic river" designation** for a county section of the Smith River, under which the pipeline would pass. Dominion Transmission has proposed the pipeline, which would run 262 miles from West Virginia to North Carolina, traversing several Virginia counties. The county board of supervisors has passed a resolution opposing the pipeline route. Meanwhile, the Va. Department of Conservation and Recreation has said that a segment of the Smith River qualifies for "Scenic River" designation. That designation would not by itself prevent a pipeline crossing, but it could be a factor. The scenic river designation has generated controversy in the county, and in December 2000 the county board tabled discussion of the designation. Dominion officials are to submit their proposal to the Federal Energy Regulatory Commission in early 2002. For the scenic river designation to occur, the county board would have to pass a resolution of support, which would be part of a request to the Virginia General Assembly. (*Martinsville Bulletin*, 5/23/01)

...and Outside of Virginia

For this issue's Outside of Virginia part of the news summaries, we present a **"snapshot" of water issues around the country**. The snapshot comes from the Spring 2001 "Program Executive Summary" of the National Institutes for Water Resources (NIWR). NIWR is a non-profit organization that represents the 54 state water resources institutes, including the Virginia Water Center. The 2001 summary includes basic information on the state institutes' administration, funding, and services, as well as contact information for each center. In addition, the report highlights activities in several states; from those highlights, here's a look at some water resources issues getting attention around the country:

Arizona	Re-use of residential "graywater"
Arkansas	Strategy for monitoring phosphorus entering Lake Tenkiller, a drinking-water supply
California	Bio-remediation of water contaminated with MTBE
Idaho	Development of tools for managing the Snake River Plain Aquifer
Massachusetts	Implementation of state-funded water-quality monitoring by volunteers
Michigan	Assistance in watershed management by local citizens and governments
Mississippi	Forestry best management practices
Montana	Restoration of the Clark Fork River, a tributary of the Columbia River
Nevada	Assessing the availability of the state's water resources
New Mexico	Better methods to detect drinking water pathogens
New York	Watershed protection
North Carolina	Participation in the National Academy of Sciences TMDL panel
North Dakota	Value of wetlands for flood control
Ohio	Beneficial use of waste material from coal-fired power plants
Washington	Salmon restoration in Pacific Northwest rivers
West Virginia	Acid mine drainage
Wisconsin	Naturally occurring arsenic in groundwater

If you would like a copy of the NIWR report, please contact the Virginia Water Center at (540) 231-5624, e-mail: water@vt.edu, or the water center in your state.

N O T I C E S

On the Public Calendar

•Public meetings on the notice of intent to regulate intended sewage discharge from boats: Aug. 2 at 7 p.m., Va. Dept. of Environmental Quality (DEQ), Tidewater Office, Virginia Beach; Aug. 3 at 10 a.m., DEQ Piedmont Office, Richmond; and Aug. 6 at 7 p.m., DEQ West Central Office, Roanoke. For more information, contact Michael Gregory, e-mail: mbgregory@deq.state.va.us, or by phone at the DEQ Central Office in Richmond, (800) 592-5482.

National Water Quality Briefing Series

In this series, the Water Environment Federation will present information from U. S. Geological Survey investigations. Jul. 13, mercury in fish; Aug. 10, urban sprawl; Sep. 14, volatile organic compounds. All are in Washington at 10 a.m. For locations and other information, contact WEF at (703) 684-2400.

Water Conservation Guide

The International Turf Producers Foundation has published *Water Right: Conserving Our Water, Preserving Our Environment*. To request a free copy, phone (800) 405-8873, or send e-mail to Turf-Grass@msn.com.

Ogallala—Water for a Dry Land

This book is a history of the large Ogallala aquifer and its importance in the central United States. Published by the University of Nebraska Press, 233 N. 8th St., Lincoln, NE 68588-0255; (800) 755-1105; Web-site: www.nebraskapress.unl.edu.

James River Symposium

The James River Association is sponsoring this meeting on September 8 at the Virginia State Library in Richmond. For more information: phone the Association office at (804) 730-2898.

State of Virginia's Rivers Report

If you haven't yet gotten a copy of this useful January 2001 publication from the Friends of Rivers of Virginia, fear not! Free copies are still available. Phone (540) 343-3693, or write FORVA, P. O. Box 1750, Roanoke, VA 24008.

At the Water Center

For more information about any Water Center item, phone (540) 231-5624; send e-mail to water@vt.edu; or visit www.vwrrc.vt.edu.

•The **water-supply planning study** mentioned in the November 2000 *Water Central* (p. 18) had to be discontinued due to budget cuts this year.

•2001 Water Center Awards

Competitive Grants

"Demonstration and Evaluation of Optimal Design Tools for Determination of TMDL Allocations." Teresa Culver, Univ. of Va.

"Endocrine Disruption Potential in Wastewater Effluents and Biosolids: Mechanisms Governing Fate and Transport within Engineered Systems." John Novak, Nancy Love, and David Holbrook, Va. Tech.

"Determination of Reservoir Safe Yield based on the Potential for Occurrence of Drought." G.V. Loganathan and Bill Cox, Va. Tech.

"Statistical Analysis in Water Resource Monitoring." Keying Ye and Eric Smith, Va. Tech.

"Recent and Historical Environmental Change in Lake Drummond [Great Dismal Swamp]." Jennifer Slate, Old Dominion Univ.

Seed Grants

"Chemical Markers for Evaluating *E. coli* Growth and Transport in Ecological Systems." Andrea Dietrich and Daniel Gallagher, Va. Tech.

"Exploring the Transport of Estradiol Estrogen from Two Agricultural Watersheds to the Surrounding Hydrologic Environment." Janet Herman, Univ. of Va.

"Preliminary Evaluation of Synthetic Streamflow Predictors for Use in TMDL Development." Teresa Culver, Univ. of Va.

"Thiialomethane Formation Potential and Molecular Characterization of Dissolved Organic Matter in the Southeastern Virginia Water Supply." Robert Dias and Elizabeth Minor, Old Dominion Univ.

"Geologic and Hydrodynamic Modeling to Evaluate the Occurrence of the Virginia Inland Salt Wedge Associated with the Chesapeake Bay Impact Crater." Thomas Burbey, Va. Tech.

Challenge Grant

"Identifying Critical Sediment-Source Areas in the Clinch-Powell Basin: Little River Sub-Watershed Feasibility Study." Carl Zipper, Theo Dillaha, and P. Donovan-Ealy, Va. Tech.

Walker Graduate Fellow Award

Mira Stone Olson, Univ. of Va.

Undergraduate Summer Fellowship

Jill Anne Franzosa, Univ. of Va.

•Recent Publications

Younos, T., *et al.* 2001. Determining the Source of Stream Contamination in a Karst-Water System, Southwest Virginia, USA. *JAWRA* Vol. 37, No. 2, pp. 327-334.

Roggenbuck, J. W., *et al.* 2001. *Motivation, Retention, and Program Recommendations of Save Our Streams Volunteers*. VWRRRC Special Report SR19-2001.

•Conference Announcement

Virginia Water Research Symposium 2001, November 14-16, Charlottesville. For details, contact the Water Center.

CORRECTIONS FROM THE APRIL 2001 ISSUE OF *WATER CENTRAL*

•In the Science article on amphibians:

1) The article stated that *ectotherms'* (fish, amphibians, and reptiles) body temperature fluctuates, while *endotherms'* (birds and mammals) body temperature is relatively constant. In fact, some reptiles use behavior to maintain a fairly constant body temperature, and some birds' body temperature fluctuates at least as much as that of amphibians.

2) The articles stated that most amphibians have *external* fertilization. This is true for frogs and toads (the largest group of amphibians), but some 90 percent of salamanders and all caecilians (a tropical group of amphibians) have *internal* fertilization.

(*Water Central* thanks Carola Haas, a Va. Tech herpetologist, for this information.)

•In "For the Record," on groundwater:

1) Three, not two, circulars from the National Water Quality Assessment program cover parts of Virginia; we failed to mention Circular 1204, *Water Quality in the Kanawha-New River Basin*.

2) To view the October 1999 *Groundwater Report to Congress* on-line, go to www.epa.gov/safewater/Pubs/index.html and enter the *publication number*, EPA-816-R-99-016, (rather than the title) in the "Search" box.

FOR THE RECORD

Sources for Selected Water Resources Topics

Coastal and Marine Resources Information

Virginia has over 5000 miles of coastline, several rivers with significant tidal portions, and two bays: Back Bay in Virginia Beach, and Chesapeake Bay, the nation's largest estuary (an area where freshwater and saltwater mix). These waters and the resources they support are important parts of Virginia's history, natural heritage, culture, and economy. This page identifies some key sources of information and data relevant to Virginia's coastal waters and marine resources.

•**National Marine Fisheries Service**—Northeast Regional Office, 1 Blackburn Dr., Gloucester, MA 01930-2298; phone (978) 281-9300; Web-site: www.nero.nmfs.gov/. This agency administers the National Oceanic and Atmospheric Administration's (NOAA's) marine resources programs, including the Fishery Statistics Office, which has analysis and reports on issues and trends in fisheries.

•**National Oceanic Data Center**—The main office is located at 1315 East-West Highway, Silver Spring, MD 20910-3282; phone (301) 713-3277; e-mail: services@nodc.noaa.gov; Web-site: www.nodc.noaa.gov. Another agency under NOAA, NODC's mission (according to its charter) is to "acquire, process, preserve, and disseminate oceanographic data." To request information or products, contact the **User Services** department at the address, phone, or e-mail above.

•**U. S. EPA's Shallow-water Habitat Web-site**—www.epa.gov/region03/shallow_water. "Shallow-water habitat" refers to estuarine, intertidal, and near-coastal marine waters. Since 1994, the EPA has sponsored four national conferences on shallow-water habitat, its benefits, and the conflicts that arise among users. Copies of the summaries from the four conferences, and full papers from the first two, are available from Ralph Spagnolo, phone (215) 814-2718; e-mail: spagnolo.ralph@epamail.epa.gov.

•**Chesapeake Bay Program**—Phone (800) YOUR-BAY; www.chesapeakebay.net/baybio.htm. The Bay Program's Web-site has basic biological information; more specific sections on fish,

shellfish, plants, birds, mammals, and other creatures; and links to data sources.

•**Virginia Institute of Marine Science (Fisheries Science and Biological Sciences departments)**—P. O. Box 1346, Gloucester, VA 23062-1346; (804) 684-7344; Web-site www.vims.edu/. VIMS is an especially good source for learning about research related to marine and coastal environments. Among the Web-site's interesting features is "Track a female Loggerhead sea turtle."

•**Virginia Marine Resources Commission**—P. O. Box 756, Newport News, VA 24607-0756; (757) 247-2200; Web-site: www.state.va.us/mrc/homepage.htm. The VMRC manages the Virginia's marine fishery and is also responsible tidal bottomlands, wetlands, and dunes. The VMRC can provide information on marine game-fish records, commercial fishing (including landings data), crabbing, fisheries biological data, recreational fisheries data, and commercial oyster production. VMRC has several regular publications.

•**Virginia Coastal Resources Management Program**—Va. DEQ, 629 East Main St., Richmond 23219; program manager phone (804) 698-4323; e-mail: lbmckay@deq.state.va.us; Web-site: www.deq.state.va.us/coastal/. This is a effort among several state agencies to coordinate activities affecting coastal wildlife habitat, public access, waterfront redevelopment, and underwater historic sites. The program's Web-site provides some basic information about Virginia's coastal resources, details about the program's activities, and access to *Coastal Program News*.

Upcoming "For the Record" Schedule

2001

Issue 18 – Drinking-water Information
Issue 19 – Water-quality Information
Issue 20 – Water-quantity and Hydrologic Information

2002

Issue 21 – Following the Va. Gen. Assembly
Issue 22 – Weather and Climate

Schedule subject to change

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Attention Arachnophiles!

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