

Virginia Water Central Newsletter

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Historic water-powered mill wheel on the Waterwheel Restaurant in Warm Springs, Va., July 22, 2017.

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Editor's Comment



The Water Work of the 2017 Virginia General Assembly

By Alan Raflo

This issue of the *Virginia Water Central Newsletter* presents our annual inventory of water-related legislation in the General Assembly. The inventory includes 167 measures from the categories (primarily) of Budget; Conservation; Drainage, Soil Conservation, Sanitation, and Public Service Facilities; Eminent Domain; Energy; Fisheries and Habitat of Tidal Waters; Game, Inland Fisheries, and Boating; Health; Mines and Mining; Public Service Companies; Waste Disposal and Management; Water and Sewer Systems; and Waters of the State, Ports, and Harbors.

Citizen opinions are a vital part of the General Assembly's work in Richmond, and expressing those opinions is a part of the job description for "citizen." If you don't know your representatives or their contact information, you can use the online "Who's My Legislator" service, available at <http://whosmy.virginiageneralassembly.gov/>, or you can find members' contact information at <http://virginiageneralassembly.gov/house/members/members.php> for the House of Delegate and <http://apps.senate.virginia.gov/Senator/> for the State Senate. If you know the numbers of your legislative districts, you can use the following code to identify your representatives' Capitol phone numbers: for delegates, (804) 698-10 + district number (for example, 698-1003 for the District 3 delegate); for senators, (804) 698-75 + district number (for example, 698-7510 for the District 10 senator).

I hope you find the water-related bill inventory useful.



Natural Resources Subcommittee of the Virginia House of Delegates' Agriculture, Chesapeake and Natural Resources Committee, January 18, 2017.

TEACHING WATER Especially for Virginia's K-12 teachers

This Issue of *Water Central Newsletter* and the Virginia Standards of Learning

Below are suggested Virginia Standards of Learning (SOLs) that may be supported by items in this issue. The SOLs listed are from Virginia's 2010 Science SOLs and 2015 Social Studies SOLs. Abbreviations: CE = civics and economics; ES = earth science; GOV = Va. and U.S. government; LS=life science; VS = Virginia studies; WG = world geography.

Newsletter Section	Science SOLs	Social Studies SOLs
Water in 2017 Virginia General Assembly	6.7, 6.9, LS.11, ES.6, ES.10, BIO.8	VS.10, CE.1, CE.7, CE.10, WG.2, WG.18, GOV.1, GOV.8, GOV.9, GOV.15

FEATURE ARTICLE

Water in the 2017 Virginia General Assembly

The 2017 Virginia General Assembly session convened January 11 and adjourned February 25. All non-revenue bills were to be filed by January 20. The reconvened (“veto”) session was held April 5.

In the tables below, the Virginia Water Resources Research Center lists 167 measures in the 2017 Assembly dealing with water resources directly or indirectly, including two budget bills. Inventories from previous General Assembly sessions, back to 1998, are available via this link: <http://www.vwrrc.vt.edu/virginia-water-legislation/>.

The list comes from the Legislative Information System (LIS) Web site at <http://lis.virginia.gov/> (also at <http://leg1.state.va.us> in a slightly different format), in the categories indicated by sub-headings below. Bills are listed under only one category, even if LIS listed them more than once. The categories searched and the bills listed include all those with *direct* water relevance (such as bills in the “Water and Sewer Systems” category) as well as those with a *potential or indirect* relevance to water (such as bills dealing with land conservation, energy, or transportation projects). The list below *does not necessarily include all bills* that potentially affect Virginia’s water resources.

Within each category, bills are listed in order of their **bill number**, using the following abbreviations: **HB** = bill started in House of Delegates; **HJ** = joint resolution started in the House; **SB** = bill started in the Senate; and **SJ** = joint resolution started in the Senate. Numbers in the left-hand column have been added by the Water Center for cross-referencing among the bills.

The **bill titles and descriptions** (third column from left) are taken from the LIS site, edited in some cases for clarity, space, or both. The right hand-column lists the **status of bills**—that is, a given bill’s location in House or Senate, the committee currently considering the bill (e.g., “House ACNR” or “Senate Local Government”), and whether the bill has passed or failed in those locations (please note that “reported” from a committee is effectively equivalent to “passing” the committee). The status given is according to information available on the LIS Web site following the April 5, 2017, reconvened session. **Click on the underlined bill numbers** to access more detailed bill information at the LIS site.

Frequently used abbreviations in the tables: House ACNR = House Agriculture, Chesapeake, and Natural Resources Committee; Senate ACNR = Senate Agriculture, Conservation, and Natural Resources Committee; DCR = Virginia Department of Conservation and Recreation; DEQ = Virginia Department of Environmental Quality; DGIF = Virginia Department of Game and Inland Fisheries; DMME = Department of Mines, Minerals and Energy; JLARC = Joint Legislative Audit and Review Commission; SCC = State Corporation Commission; SWCB = State Water Control Board; VDH = Virginia Department of Health; VDOT = Virginia Department of Transportation; VMRC = Virginia Marine Resources Commission.



APPROPRIATIONS/BUDGET

Budget bills in every odd-number year's shorter session include proposed changes (amendments) to the current biennial budget, which was approved in the preceding even-numbered year's longer session. Budget amendments are organized into operating expenses, capital expenses, miscellaneous, and general provisions (spending policies). Within the operating and capital expenses sections, the bills' proposals are organized into the Commonwealth's secretariats. For example, the provisions of HB 1500 (the budget bill passed in 2017) for departments under the Secretary of Natural Resources are available online at <https://budget.lis.virginia.gov/secretariat/2017/1/HB1500/Chapter/1/office-of-natural-resources/>. LIS information on the state budget process in 2017 is available online at <https://budget.lis.virginia.gov/default/2017/1/>.

1.	HB 1500	House budget bill for current biennium. Amendments to Chapter 780 of the 2016 General Assembly, which appropriated funds for the 2016-18 Biennium, ending on the 30 th day of June 2018.	Passed House and Senate on 2/25/17; many governor recommendations considered 4/5/17; certain additional actions taken by governor; approved by governor 4/28/17.
2.	SB 900	Senate budget bill for current biennium. Amendments to Chapter 780 of the 2016 General Assembly (which appropriated funds for the 2016-18 Biennium), ending on the 30 th day of June 2018.	Passed Senate; failed in House Appropriations.

CONSERVATION

Land Conservation Policy and Tax-credit Bills

3.	HB 1470	Land preservation tax credits; limitations. Would have imposed a \$2 million limit on the amount of credits that may be claimed for each land conveyance and a \$20,000 limit on the annual amount of credits that may be claimed by each taxpayer; set a \$50,000 cap on the annual amount of credits that may be claimed for a fee simple donation of land to the Commonwealth; limited the maximum annual amount of credits that may be issued to all taxpayers to \$50 million; and increased the fee imposed upon any transfer arising from the sale of land preservation tax credits by any taxpayer from two to 2.5 percent of the value of the donated interest.	Failed in House Finance.
4.	HB 1476	Real property tax assessment for land preservation. Prohibits any locality from requiring any taxpayer who is the lessor of real property to produce the lease for the purpose of determining whether the property is eligible for special assessment for land preservation.	Passed both houses and approved by governor.
5.	HB 1565	Local tax and regulatory incentives; green development zones authorized. Authorizes localities to create "green development" zones that provide certain tax incentives and regulatory flexibility for businesses operating in an energy-efficient building or producing goods used to reduce negative impact on the environment.	Passed both houses and approved by governor.
6.	HB 1635	Historic rehabilitation tax credit; per taxpayer limitation. Would have limited to \$5 million per year the amount of historic rehabilitation tax credits that may be claimed	Failed in House Finance.

		by each taxpayer, including any amounts carried over from prior taxable years. See related HB 2460 (#8).	
7.	HB 2150	Land preservation tax credit; lower per taxpayer limitation extended to 2017. Companion bill is SB 963 (#9); please see that bill for summary.	Failed in House Finance.
8.	HB 2460	Historic rehabilitation tax credit; per taxpayer limitation for 2017 only. Limits to \$5 million the amount of historic rehabilitation tax credits that may be claimed by each taxpayer, including any amounts carried over from prior taxable years, for taxable years beginning on and after January 1, 2017, but before January 1, 2019. Companion bill is SB 1034 (#10).	Passed both houses and approved by governor.
9.	SB 963	Land preservation tax credit; lower per taxpayer limitation extended to 2017. Extends to taxable year 2017 the \$20,000 limit on the amount that a taxpayer may claim per year under the land preservation tax credit, but retains the \$50,000 limit for each subsequent taxable year. Companion bill is HB 2150 (#7).	Passed both houses and approved by governor.
10.	SB 1034	Historic rehabilitation tax credit; per taxpayer limitation for 2017 only. Companion bill is HB 2460 (#9); please see that bill for summary.	Passed both houses and approved by governor.
11.	SB 1286	Land preservation tax credits; withholding tax of nonresident owners. Provides that the two-percent transfer fee for land preservation tax credits shall <i>not</i> apply to a distribution of credits to a nonresident owner of a pass-through entity when such credits are applied by the pass-through entity to the withholding tax of the nonresident owner.	Passed both houses and approved by governor.
12.	SB 1540	Aggregate caps for rehabilitation tax credit, research and development expenses tax credit, major research and development expenses tax credit, and land preservation tax credit. Would have reduced the total aggregate caps of these tax credits over a period of 10 years, so that no credits were available for any of the credits beginning in 2027.	Failed in Senate Finance.

Other Conservation Bills

13.	HB 1454	James River; designating additional portion as component of Virginia Scenic Rivers System. Extends the scenic river designation of a portion of the James River located in Botetourt and Rockbridge Counties from 14 miles to 59 miles. Companion bill is SB 1196 (#30).	Passed both houses and approved by governor.
14.	HB 1506	Vacant developed property; cutting overgrown shrubs and trees. Would have defined “other foreign growth” as overgrown shrubs and trees for purposes of existing law authorizing localities to require owners of vacant developed property to cut “grass, weeds, and other foreign growth” and for localities—after reasonable notice—to cut such materials on vacant developed property and charge the cost to the owner.	Failed in House Counties, Cities and Towns.
15.	HB 1597	Local stormwater management utility; waiver of charges for stormwater retained and treated on site. Requires any locality establishing a stormwater management utility to provide a full or partial waiver of charges not only for “a stormwater management facility that achieves a permanent reduction in stormwater flow or pollutant loadings” (as in	Passed both houses and approved by governor.

		existing law) but also for “[any] other such other facility, system, or practice whereby stormwater runoff produced by the property is retained and treated on site in accordance with an [approved] stormwater management plan.”	
16.	HB 1759	Redeemable beverage containers. Would have required that all beverage containers, as defined in the bill, sold in Virginia have a redemption value of five cents.	Failed in House ACNR.
17.	HB 1774	Stormwater law delay and creation of work group. The bill delays from July 1, 2017, to July 1, 2018, the effective date of new stormwater laws enacted during the 2016 Session of the General Assembly. It also directs the Commonwealth Center for Recurrent Flooding Resiliency to convene a work group to consider alternative methods of stormwater management in rural Tidewater localities. The work group is to review and consider the creation of rural development growth areas, the development of a volume credit program, the payment of fees to support regional best management practices, and the allowance of the use of stormwater in highway ditches to generate volume credits. The group is to report by January 1, 2018, to the governor and the chairs of the House Committee on Agriculture, Chesapeake and Natural Resources and the Senate Committee on Agriculture, Conservation and Natural Resources.	Passed both houses and approved by governor.
18.	HB 1793	Burn ban; exception for freeze protection of orchard or vineyard. Adds an exception to the ban on fires from February 15 through April 30 for fire set to prevent frost/freeze damage to orchards or vineyards.	Passed both houses and approved by governor.
19.	HB 1974	Clean Power Plan; state implementation. Would have required DEQ to receive approval from the General Assembly for a state implementation plan to regulate carbon dioxide emissions from existing power plants prior to submitting the plan to the U.S. Environmental Protection Agency for approval. A Senate amendment would have required a 2017 General Assembly appropriation for the bill to take effect.	Passed House; amended version passed Senate; Senate-amended version failed in House.
20.	HB 2123	Conservation and replacement of trees in Planning District 8. Would have authorized any locality in Planning District 8 to require developments to meet certain tree canopy requirements by 10 years, rather than the current authorization to have a 20-year time to meet the requirements. See related SB 930 (#26).	Failed in House Counties, Cities and Towns.
21.	HB 2159	Litter from tobacco products. Would have added cigarette or cigar butts to the definition of litter.	Failed in House ACNR.
22.	HB 2272	Compact fluorescent light (CFL) bulb recycling; local ordinances for returning bulbs. Would have allowed any locality to require retailers of CFL bulbs to accept used bulbs from customers and to post written notice of that requirement, and required wholesalers to accept used bulbs and to pick them up from the point of collection within 90 days of collection.	Failed in House ACNR.
23.	HB 2311	Nutrient Offset Fund; additional stipulations for the purchase and sale of credits. Adds to the current requirement that the DEQ director to use certain funds to purchase nutrient credits for point or nonpoint sources that achieve reductions beyond the requirements of state or federal law, that the purchase may be to achieve reductions beyond	Passed both houses and approved by governor.

		those required by the Chesapeake Bay Watershed Implementation Plan; directs the DEQ to establish procedures for distributing moneys from the Nutrient Offset Fund with certain requirements; requires the DEQ director to consider the recommendations of the Secretary of Commerce and Trade and the requirements of the State Water Control Law (<i>Virginia Code</i> Sec. 62.1-44.2 <i>et seq.</i>) in the sale of nutrient credits to <i>new or expanding private facilities</i> ; removes the priority given to nutrient offsets produced from facilities that generate electricity from animal waste; and renames nutrient “offsets” as nutrient “credits or allocations.”	
24.	HJ 636	Study of economic impacts of litter on fishing, farming, and water quality in urban streams. Would have requested the DEQ to study the economic impact of litter on fishing, farming, water, and other components of Virginia's economy; and to propose strategies, campaigns, and actions to protect Virginia's economy from harm caused by litter and to promote the state's economic welfare.	Failed in House Rules.
25.	HJ 691	Study by VDOT of noise-abatement remedies. Would have requested the Virginia Department of Transportation (VDOT) to develop procedures to assess the noise impact on neighborhoods that were previously studied for noise impact but were ineligible for noise-abatement remedies at the time of the study. Companion bill is SJ 233 (#32).	Failed in House Rules.
26.	SB 930	Town of Vienna (Fairfax County); conservation and replacement of trees. Would have added the Town of Vienna to those localities authorized to provide for the planting and replacement of trees, and the conservation of trees, during certain land development processes. See related HB 2123 (#20).	Failed in Senate Local Government.
27.	SB 984	Water Quality Improvement Fund; water reuse facilities in definition of nutrient-removal technology. Would have included, in the definition of “nutrient removal technology,” technologies in water-reuse facilities that reduce nutrient discharges	Stricken from Senate ACNR at request of patron.
28.	SB 1037	Virginia Residential Property Disclosure Act; required disclosures for local historic districts. Adds to the diligence advised for any prospective purchaser of residential property, who receives a residential property disclosure statement wherein the owner makes no representations with respect to the presence of a historic district, to review “any materials available from the locality that explain (i) any requirements to alter, reconstruct, renovate, restore, or demolish buildings or signs in the local historic district and (ii) the necessity of obtaining any local review board or governing body approvals prior to doing any work on a property located in a local historic district.”	Passed both houses and approved by governor.
29.	SB 1097	James River; designating additional portion as component of Virginia Scenic Rivers System. Identical to HB 1454 (#13); please see that bill for summary.	Reported from Senate ACNR; failed on Senate floor.
30.	SB 1196	James River; designating additional portion as component of Virginia Scenic Rivers System. Companion bill is HB 1454 (#13); please see that bill for summary.	Passed both houses and approved by governor.

31.	SB 1518	Recycling; scope of DEQ programs to include beneficial use. Would have expanded the scope of the recycling programs supported by the DEQ to include beneficial use, defined as the use or reuse of a material that otherwise would become solid waste in a manufacturing process or as landfill cover, aggregate substitute, fuel substitute, or fill material; increased from every four years to every two years the frequency that solid waste planning units or localities submit a recycling survey report; and directed the DEQ to evaluate recycling rates statewide and make recommendations for increasing rates.	Failed in Senate ACNR.
32.	SJ 233	Study by VDOT of noise-abatement remedies. Companion bill is HJ 691 (#25); please see that bill for summary.	Failed in Senate Rules.

DRAINAGE, SOIL CONSERVATION, SANITATION, AND PUBLIC SERVICE FACILITIES

33.	HB 1472	State and Local Government Conflict of Interests Act; exceptions for certain contracts entered into by an officer or employee of a soil and water conservation district. Provides an exception to the prohibition against contracts between employing agencies and their officers or employees for contracts by an officer or employee of a soil and water conservation district (or an immediate family member of such officer or employee) to participate in cost-share programs for installation of best management practices to improve water quality. Companion bill is SB 965 (#35).	Passed both houses and approved by governor.
34.	HB 1740	Sanitary districts; creation by local governing body rather than circuit court. Transfers authority to create or enlarge sanitary districts from the circuit court with jurisdiction over the locality in which the district is located to the governing body of the county in which the district is located; also adds certain criteria the governing body must meet.	Passed both houses and approved by governor.
35.	SB 965	State and Local Government Conflict of Interests Act; exceptions for certain contracts entered into by an officer or employee of a soil and water conservation district. Companion bill is HB 1472 (#33); please see that bill for summary.	Passed both houses and approved by governor.
36.	SB 1311	Hampton Roads Sanitation District territory and membership. Adds the Surry County, excluding the Town of Claremont, to the Hampton Roads Sanitation District territory; also adds a resident of Surry County as a potential appointee for the Commission member who under current law must be a resident of the City of Suffolk or Isle of Wight County.	Passed both houses and approved by governor.

EMINENT DOMAIN

37.	HB 2024	Condemnation powers and proceedings; notice to owner or tenant. Requires an authorized condemnor or the Commissioner of Highways, between 30 and 45 days prior to the filing or recordation of a certificate in any "quick take" condemnation proceeding, to give notice of the condemnation to the owner or tenant of freehold property subject to condemnation; current law requires notice but does not provide a	Passed both houses and approved by governor.
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		time frame within which such notice must be given. The bill also requires such condemnor to notify the owner or tenant within four business days of the filing or recording by providing a copy of the certificate by certified or registered mail.	
38.	HB 2124	Just compensation for entry onto property by condemnor or natural gas company. Would have required just compensation to a landowner from a condemnor or a natural gas company with the right of entry without the permission of the landowner, with the presumptive amount of such just compensation set at \$100, to be paid to the landowner in advance of the entry onto the property.	Failed in House Courts of Justice.
39.	SB 927	Timing for initiation of “quick-take” condemnation procedure for just compensation. Provides that an authorized condemnor in a “quick-take” condemnation proceeding shall institute such proceedings within 180 days of the recordation of a certificate terminating the interest of the owner of the property. Under current law, such proceedings must be instituted within 60 days after the completion of the construction of the improvements upon the property. The bill further provides that the owner of such property has 180 days after the authorized condemnor has entered upon and taken possession of the property, or after the recordation of a certificate, to petition the court for a determination of just compensation for the property taken or damaged by the authorized condemnor.	Passed both houses and approved by governor.
40.	SB 1153	Inverse condemnation proceeding; reimbursement of owner's costs for damage, not only for taking. Directs courts to reimburse a plaintiff for the costs of an inverse condemnation proceeding for “ <i>damaging</i> ” property if a judgment is entered for the plaintiff. Under current law, the court is directed to award costs only for the “ <i>taking</i> ” of property. The amendment in this bill corresponds with the language of amendments to Article I, Section 11 of the <i>Constitution of Virginia</i> , which became effective on January 1, 2013, and applies to judgment proceedings filed on or after July 1, 2017.	Passed both houses and approved by governor.
41.	SB 1421	Condemnation proceedings; interest on the amount of award. Provides that the interest on a condemnation proceeding award that is greater than the amount that the condemnor deposited with the court shall accrue at the judgment rate of interest as set forth in <i>Virginia Code</i> section 8.01-382 (which refers back to section 6.2-302).	Passed both houses and approved by governor.

ENERGY CONSERVATION AND RESOURCES

42.	HB 1636	Energy efficiency programs; total resource cost test of benefit/cost ratio. Would have defined “total resource cost test” means a test to determine if the benefit-cost ratio of a proposed energy efficiency program or measure is greater than one, and provided that an energy efficiency program or measure that meets the total resource cost test is in the public interest, while an energy efficiency program or measure that fails the total resource cost test would have to be reviewed by the Commission under other tests for approving energy efficiency.	Failed in House Commerce and Labor.
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43.	HB 1712	Energy conservation or operational efficiency measures from an energy performance-based contract. Provides that a public body (as a contracting entity) may purchase energy-conservation or -efficiency measures from an energy performance-based contract entered into by another contracting entity pursuant to the Energy and Operational Efficiency Performance-Based Contracting Act, even if the entity did not participate in the request for proposals if the request for proposals specified that the procurement was being conducted on behalf of other contracting entities; permits the use of cooperative procurement for energy conservation or operational efficiency measures in such instances; provides, however, that energy-conservation or -efficiency measures shall not include roof-replacement projects.	Passed both houses and approved by governor.
44.	HB 1891	Geothermal heat pump property expenditure tax credit. Would have established a tax credit for taxable years 2017-2021. Companion bill is SB 1392 (#53).	Failed in House Finance.
45.	HB 2018	Virginia Alternative Energy and Coastal Protection Act; Would have required that the governor seek to join the Regional Greenhouse Gas Initiative or other carbon-trading program and that the DEQ establish a carbon dioxide cap-and-trade program to reduce emissions from electricity generation. Revenues from the sale of carbon allowances would have been deposited in the Virginia Shoreline Resiliency Fund, a revolving fund established in 2016 (SB 282) for mitigating future flood damage and helping residents and businesses that are subject to recurrent flooding.	Failed in House Commerce and Labor.
46.	HB 2303	Small agricultural generators of electricity; establishes parameters of a program for selling electricity to a utility. Establishes the parameters of a program under which small agricultural generators may sell the electricity they generate to its utility. Defines “small agricultural generator” as a customer who operates an electrical generating facility as part of an agricultural business, and which generating facility—among other conditions—has a capacity of not more than 1.5 megawatts, uses renewable energy as its total source of fuel, has a capacity that does not exceed 150 percent of the customer's expected annual energy consumption based on the previous 12 months of billing history, uses not more than 25 percent of contiguous land owned or controlled by the agricultural business for purposes of the renewable energy generating facility, and is a PURPA-qualifying small power production facility. (PURPA is the federal Public Utility Regulatory Policies Act of 1978; information is online at https://energy.gov/oe/services/electricity-policy-coordination-and-implementation/other-regulatory-efforts/public .) Effective July 1, 2019, electricity generators may elect to interconnect as small agricultural generators or as “eligible agricultural customer-generators” (defined in previous law), but not both. Existing eligible agricultural customer-generators may elect to become small agricultural generators, but may not revert to being eligible agricultural customer-generators after such election. On and after July 1, 2019, interconnection of eligible agricultural customer-generators shall cease for electric cooperatives only, and such facilities shall interconnect solely as small agricultural generators. For electric	Passed both houses and approved by governor.

		cooperatives, eligible agricultural customer-generators whose renewable energy generating facilities were interconnected before July 1, 2019, may continue to participate in net energy metering pursuant to this section for a period not to exceed 25 years from the date of their renewable energy generating facility's original interconnection. The program for small agricultural generators requires the generator to enter into a power purchase agreement with its supplier to sell all of the electricity generated at a rate not less than the supplier's SCC-approved avoided cost tariff for energy and capacity. The program also provides for utilities to recover distribution service costs and costs incurred to purchase electricity, capacity, and renewable energy certificates from the small agricultural generator. Companion bill is SB 1394 (#55).	
47.	HB 2390	Renewable energy power purchase agreements; expands pilot program to Appalachian Power (currently only applied to Dominion). Expands the pilot program for renewable energy power purchase agreements authorized under legislation enacted in 2013 to include Appalachian Power (designated in the bill as “ <i>an investor-owned utility that was not bound by a rate case settlement adopted by the Commission that extended in its application beyond January 1, 2002</i> ”). Currently a pilot program is authorized only within Dominion Energy’s service territory. The measure provides that within the certificated service territory of Appalachian Power, non-profit, private institutions of higher education that are not being served under a specific renewable generation tariff provision are deemed to be customer-generators eligible to participate in the pilot program, without the requirement that they participate in the utility’s net energy metering program. The aggregated capacity of all generation facilities that are subject to third party power purchase agreements in Appalachian Power's pilot program is capped at seven megawatts. Appalachian Power's pilot program expires July 1, 2022.	Passed both houses and approved by governor.
48.	HJ 575	Study by Department of General Services of energy savings through infrastructure investments. Would have requested the Department of General Services to study and recommend infrastructure investments that can be made to maximize energy savings to the Commonwealth.	Failed in House Rules.
49.	SB 1197	Small renewable energy projects; restores requirement for State Corporation Commission (SCC) to review construction for projects of certain size or location. Would have restored the requirement for SCC review of small renewable energy projects (removed in 2009) for those projects that either would disturb an area of 100 acres or more or would be located within five miles of a boundary between the political subdivision in which such project is located and another locality.	Failed in Senate Commerce and Labor.
50.	SB 1226	Virginia Freedom of Information Act exclusion for certain proprietary records and trade secrets related to solar energy. Adds to existing exclusions from the mandatory disclosure provisions of FOIA the following: proprietary information, voluntarily provided by a private business under a promise of confidentiality from a public body, used by the public body for a solar services agreement. The bill requires the private	Passed both houses and approved by governor.

		business to specify the records for which protection is sought before submitting them to the public body and to state the reasons why protection is necessary. The bill also allows a solar services agreement contractor or provider to designate specific provisions in a solar services agreement as proprietary information not subject to disclosure, and authorizes a city to withhold from disclosure such information provided by a private entity in connection with a franchise, lease, or use under a solar services agreement.	
51.	SB 1258	Virginia Solar Energy Development Authority continuation, name change, and increase in membership. Continues the Virginia Solar Energy Development Authority and renames it the Virginia Solar Energy Development and Energy Storage Authority; expands the purposes of the authority to include positioning the Commonwealth as a leader in research, development, commercialization, manufacturing, and deployment of energy storage technology; and expands the powers of the Authority promoting collaborative efforts among Virginia's public and private institutions of higher education in research, development, and commercialization efforts related to energy storage; monitoring relevant developments nationally and globally; and identifying and working with the Commonwealth's industries and nonprofit partners. The size of the Authority is expanded from 11 to 15 members.	Passed both houses and approved by governor.
52.	SB 1388	Electric utilities' margin on solar energy power purchase agreements. Would have authorizes any investor-owned incumbent electric utility to enter into, recover the costs of, and earn a margin on power purchase agreements (executed between July 1, 2017, and July 1, 2018) and for power generated by solar energy systems located in the Commonwealth and not constructed, owned, or operated by the utility. The capacity of such solar-energy systems would have to be at least two megawatts and the systems in the aggregate could have a capacity not more than one percent of the utility's adjusted Virginia peak-load forecast for the previous year.	Stricken in Senate Commerce and Labor at request of patron.
53.	SB 1392	Geothermal heat pump property expenditure tax credit. Companion bill to HB 1891 (#44); please see that bill for summary.	Failed in Senate Finance.
54.	SB 1393	Electric utilities; community solar pilot programs. Requires Dominion Energy and Appalachian Power to conduct a community solar pilot program for retail customers. A pilot program will authorize the participating utility to sell electric power to subscribing customers under a voluntary companion rate schedule, and the utility will generate or purchase the electric power from eligible generation facilities selected for inclusion in the pilot program. An eligible generation facility is an electrical generation facility that exclusively uses energy derived from sunlight; is placed in service on or after July 1, 2017; is not constructed by an investor-owned utility but is acquired by an investor-owned utility through an asset purchase agreement or is subject to a power purchase agreement under which the utility purchases the facility's output from a third party; and has a generating capacity not exceeding two megawatts, subject to an exception. Pilot programs will last	Passed both houses and approved by governor.

		three years unless renewed or made permanent by legislation.	
55.	SB 1394	Small agricultural generators of electricity; establishes parameters of a program for selling electricity to a utility. Companion bill is HB 2303 (#46); please see that bill for summary.	Passed both houses and approved by governor.
56.	SB 1395	Certain small renewable energy projects eligibility for permits by rule. Increases the maximum rated capacity of solar and wind facilities that qualify as small renewable energy projects from 100 megawatts to 150 megawatts (the capacity remains at 100 megawatts for facilities using falling water, wave motion, tides, or geothermal power; provides eligibility for a permit by rule from the DEQ and an exemption from environmental review and permitting by the SCC for small renewable energy projects that are proposed, developed, constructed, or purchased either by a public utility <i>if</i> the project's costs are not recovered from Virginia jurisdictional customers under base rates, a fuel factor charge, or a rate adjustment clause; by a utility aggregation cooperative; or by a person that is not a regulated utility. The measure exempts a small renewable energy project for which the DEQ has issued a permit by rule from the requirement that it obtain a certificate of public convenience and necessity for the construction or operation of the project.	Passed both houses and approved by governor.

FISHERIES AND HABITAT OF TIDAL WATERS

57.	HB 1496	Oyster planting grounds leasing; changes in requirements for VMRC notice of application for lease. Same provisions as HB 2297 (#67), which passed.	Failed in House ACNR.
58.	HB 1517	General permit for sand management in the Sandbridge Beach subdivision of Virginia Beach and in Norfolk. Authorizes the Virginia Beach Wetlands Board to adopt a General Permit for Sand Management and Placement Profiles for properties in the Sandbridge Beach Subdivision of Virginia Beach, and authorizes the Norfolk Wetlands Board to adopt such a permit for properties in the City of Norfolk. The bill requires the General Permit and Placement Profiles to include the permissible cost-effective sand-management practices that property owners shall implement to protect and enhance the value of their property and to protect coastal primary sand dunes and public beaches. Any sand that is to be removed by the owner from his property must be judged to be “clean beach” sand prior to being transferred and placed in a spreading zone location.	Passed both houses and approved by governor.
59.	HB 1572	Registration as commercial fisherman; exemption from two-year waiting period for family member or employee. Directs the VMRC to grant a preference for an exception to the two-year delay in the effective date of a registration as a commercial fisherman to registration applicants who are a member of the immediate family or a documented employee of a commercial fisherman who is retiring.	Passed both houses and approved by governor.
60.	HB 1573	VMRC license revocation; applied only to specific type of fishery at issue on first violation of tidal fisheries law. Provides that when the VMRC revokes a fishing license for a	Passed both houses and approved by governor.

		violation of the tidal fisheries law, it shall revoke only the particular type of license that is applicable to the fishery in which the violation occurred. The Commission may revoke other licenses upon a second violation within five years. Under previous law, the VMRC was authorized to revoke all of the fishing licenses a person has been granted upon a first violation, irrespective of the location and type of fish described in the license. The bill also requires the VMCR to accept credit card payment of civil penalties for fishing under a revoked license.	
61.	HB 1574	Oysters culling violations; stipulations regarding scattering of oysters. Provides that when a person charged with violating an oyster culling regulation is required to scatter the entire cargo of oysters on the public rocks, no portion of the cargo shall be scattered anywhere else. The bill also requires the VMRC to accept cash, check, or credit card payment of a bond paid in lieu of throwing the cargo overboard; previous law allowed only payments in cash.	Passed both houses and approved by governor.
62.	HB 1575	Oyster dredge transport through sanctuary areas. Would have boats to carry or transport an oyster dredge or oyster dredging equipment through an oyster sanctuary area when traveling to or from licensed oyster grounds or docks for maintenance and repair of boats or equipment.	Failed in House ACNR.
63.	HB 1576	Purse net fishing for Menhaden prohibited in additional areas. Would have added the Chesapeake Bay and its tributaries within one-half mile of mean low water and within three miles of the shoreline of Virginia Beach extending to the North Carolina border to the areas where Menhaden purse net fishing is prohibited.	Failed in House ACNR.
64.	HB 1577	Menhaden fishery management by VMRC. Would have transferred management of and regulatory authority for the Menhaden fishery from the General Assembly to the VMRC. Companion bill is SB 820 (#70).	Failed in House ACNR.
65.	HB 1680	VMRC advisory groups: establishment of, or changes to, eight groups. Would have established four advisory committees to make recommendations to the VMRC on issues relating to the management of crab, finfish, shellfish, and habitat; altered two existing advisory boards that deal with commercial fishing and recreational fishing, one existing advisory committee that deals with the Virginia Saltwater Sport Fishing Tournament, and one existing board that advises on the awarding of fishery resource grants; and provided that no member of any of the seven committees and boards shall be removed except for malfeasance, misfeasance, incompetence, or gross neglect of duty. The provisions of the bill establishing the four new committees would have expired on July 1, 2020.	Passed House; failed in Senate ACNR.
66.	HB 1796	Lynnhaven River oyster ground leases subject to dredging for navigation. Provides that certain oyster ground leaseholders in the Lynnhaven River are subject to the conduct of approved municipal dredging projects to restore existing navigation channels. The bill limits such projects to oyster grounds that are condemned, restricted, or otherwise nonproductive, and it requires the locality to compensate the lessee for the use of the ground. The bill directs that if the	Passed both houses and approved by governor.

		parties cannot agree on a compensation amount, a court of competent jurisdiction shall determine the value of the ground. The bill expires July 1, 2019. Companion bill is SB 1143 (#72).	
67.	HB 2297	Oyster planting grounds: changes in requirements for VMRC notice of application for lease. Requires the Virginia Marine Resources Commission (VMRC) to post notice of an application to lease oyster planting grounds for <i>30 days</i> on its Web site and to notify by mail the county or city in which the grounds are located, any current holders of adjoining leases, and riparian owners within 200 feet of the selected grounds. Current law requires posting of notice for 60 days at the local courthouse and does not include the mail notice requirement. The bill also reduces from four weeks to two weeks the period during which the Commission is required to publish weekly notice of the application in a newspaper and requires all forms of notice to invite written comments. Companion bill is SB 1144 (#73).	Passed both houses and approved by governor.
68.	HB 2298	Riparian planting grounds lease; changing minimum low-water shorefront needed for eligibility. Would have reduced from 205 feet to 105 feet the minimum low-water shore front that makes the landowner eligible to apply for riparian planting grounds assignment by the VMRC Commissioner. Companion bill is SB 1145 (#74).	Reported from House ACNR; failed in House Appropriations.
69.	HJ 572	JLARC to study most appropriate means of regulation of Menhaden fishing. Would have directed the Joint Legislative Audit and Review Commission (JLARC) to study the most appropriate means of regulating the Menhaden fishing in the Chesapeake Bay and its tributaries.	Failed in House Rules.
70.	SB 820	Menhaden fishery management by VMRC. Companion bill is HB 1577 (#64); please see that bill for summary.	Failed in Senate ACNR.
71.	SB 909	Menhaden total allowable landings increased. Raises the annual total of allowable landings for Menhaden from 158,700.12 metric tons to 168,937.75 metric tons.	Passed both houses and approved by governor.
72.	SB 1143	Lynnhaven River oyster ground leases subject to dredging for navigation. Companion bill is HB 1796 (#66); please see that bill for summary.	Passed both houses and approved by governor.
73.	SB 1144	Oyster-planting grounds: changes in requirements for VMRC notice of application for lease. Companion bill is HB 2297 (#67); please see that bill for summary.	Passed both houses and approved by governor.
74.	SB 1145	Riparian planting grounds lease; changing minimum low-water shorefront needed for eligibility. Companion bill is HB 2298 (#68); please see that bill for summary.	Passed Senate; reported from House ACNR; failed in House Appropriations.
75.	SB 1205	Commercial fishing vessels property taxation. Classifies commercial fishing vessels and property permanently attached to such vessels as a separate class of property for the purpose of local personal property tax.	Passed both houses and approved by governor.
76.	SB 1402	Oyster-planting ground leases; VMRC to determine whether ground use plan necessary. Would have given the VMRC authority to require an acceptable ground use plan as part of an application for leasing certain oyster-planting grounds.	Failed in Senate ACNR.

GAME, INLAND FISHERIES, AND BOATING

77.	HB 1875	Waterfowl blinds; reduces distance of floating blinds from stationary blinds. Would have reduced from 500 yards to 250 yards the minimum distance a hunter, while hunting, is required to maintain between his licensed <i>floating</i> waterfowl blind and a licensed <i>stationary</i> blind.	Failed in House ACNR.
78.	HB 2450	Hunting license; landowner to obtain a free license to hunt on own property. Would have directed the adoption of regulations allowing a hunter to obtain a license at no cost for hunting on lands or inland waters that are either owned by the hunter or family member; owned by a domestic corporation, 50 percent or more of whose stock is owned by the hunter or a family member; or resided upon by the hunter and proof of consent of the landlord is carried during hunting.	Failed in House ACNR.
79.	SB 866	Boating safety course; database listing operators who have passed course. Directs the Department of Game and Inland Fisheries (DGIF) by July 1, 2018, to create a database listing the name, date of birth, and course-passage date of every person who has passed an approved boating safety course prior to July 1, 2018. Any person who passes the course after that date may add his information to the database. The bill prohibits a law-enforcement officer from issuing a citation for failure to pass the required boating safety course until he or she has checked the database for the identity of the motorboat operator.	Passed both houses and approved by governor.
80.	SB 1224	Landowner liability related to public recreational access to private property. Provides that landowners who enter into an agreement with a public entity or nonprofit organization concerning the use of land for public recreation shall be immune from liability to a member of the public arising out of the recreational use of the land.	Passed both houses and approved by governor.

HEALTH

81.	HB 1539	Virginia Freedom of Information Act. This detailed bill has several provisions regarding public access to records of public bodies. As introduced, it provided an exclusion from mandatory disclosure requirements for the names and addresses of subscribers to <i>Virginia Wildlife Magazine</i> (published by DGIF), but that exclusion was removed from the final bill.	Passed both houses and approved by governor.
82.	HB 2384	Drinking water lead levels: state regulatory action levels to be lowered. Would have directed the State Board of Health to adopt regulations setting the action level for lead in drinking water at 10 parts per billion (ppb) beginning January 1, 2018, and at five ppb beginning January 1, 2022; and would have authorized the Board to set action levels lower than those limits.	Failed in House Health, Welfare and Institutions.
83.	HB 2454	Onsite treatment works; effluent quality standards and maintenance requirements. Would have provided that effluent quality standards and maintenance requirements for onsite treatment works designed by individuals licensed as professional engineers shall not exceed those established in the Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Domestic Sewage Discharges of Less Than or	Failed in House Health, Welfare and Institutions.

		Equal to 1,000 Gallons Per Day for fresh water discharge.	
84.	HJ 639	Study by Department of Health (VDH) of Commonwealth's drinking water infrastructure and oversight. Would have requested the VDH Office of Drinking Water to study the Commonwealth's drinking water infrastructure and oversight of the drinking water system, particularly to identify problems or issues related to lead or copper contamination.	Failed in House Rules.
85.	SB 1577	Alternative onsite sewage systems; sampling for 180-day biochemical oxygen demand. Provides that the VDH shall evaluate the need for 180-day biochemical oxygen demand sampling of small alternative onsite sewage systems that serve no more than three attached or detached single-family residences with a combined average flow of less than or equal to 1,000 gallons per day of residential strength sewage, or a structure with an average daily sewage flow of less than or equal to 1,000 gallons per day of residential strength sewage. The VDH is to report its findings by December 1, 2017.	Passed both houses and approved by governor.

MINES AND MINING

86.	HB 1509	Mineral mines reclamation: increase in amount of bonds, changes to provisions on liens, and increase of Minerals Reclamation Fund. Increases, from a range of \$200 to \$1,000 per acre to a fixed amount of \$3,000 per acre, the mandatory bond amount furnished by operators on mining land; increases the minimum size of the Minerals Reclamation Fund from \$250,000 to \$2 million; and grants the Commonwealth a lien on operator property reclaimed by the Department of Mines, Minerals and Energy (DMME) director and sets out the process to perfect or waive such a lien.	Passed both houses and approved by governor.
87.	HB 1678	Virginia Freedom of Information Act (FOIA); exclusion for hydraulic fracturing trade secrets submitted to DMME. Would have excluded—from FOIA mandatory disclosure provisions—trade secrets (as defined in the Virginia Uniform Trade Secrets) submitted to the DMME that identify the amount or concentration of chemicals or ingredients used to stimulate a hydraulic fracturing fossil fuel well. See related HB 1679 (#88). Companion bill is SB 1292 (#95).	Passed House; failed in Senate General Laws and Technology.
88.	HB 1679	Hydraulic fracturing information distribution by DMME; provisions regarding trade secrets. Would have authorized the DMME to require disclosure of chemical ingredient names, chemical abstracts numbers, or the amount or concentration of chemicals or ingredients used to stimulate a well, notwithstanding exclusion from mandatory disclosure under the Virginia Freedom of Information Act as a trade secret; would have authorized the DMME director to disclose such information to additional DMME staff or state or local officials to assist the department in responding to an emergency, but prohibited such individuals from disseminating such information further. See related HB 1678 (#87). Companion bill is SB 1291 (#94).	Passed House; failed in Senate ACNR (stricken at request of patron).

89.	HB 2198	Coal tax; extends coal employment and production incentive tax credit and limits aggregate amount of credits that may be allocated or claimed. Would have reinstated the Virginia coal employment and production incentive tax credit, which expired on July 1, 2016; would have limited the aggregate amount of credits in each fiscal year to \$7.3 million; and would have extended the sunset date of the tax credit through taxable years beginning before January 1, 2022. Companion bill is SB 1470 (#98).	Passed both houses but vetoed by governor (veto sustained in House).
90.	HB 2200	Coal Surface Mining Reclamation Fund; repeal of expiration date on raising the total amount. Repeals the July 1, 2017, expiration date from 2014 legislation that raised the target balance of the Coal Surface Mining Reclamation Fund from \$1.75 million to \$20 million and that altered the method of deducting certain expenditures from the fund.	Passed both houses and approved by governor.
91.	HB 2389	Gas or oil drilling units escrowed proceeds; conditions for considering abandoned. Would have provided that proceeds of certain gas or oil wells, escrowed because the owner's identity and location remain unknown, be presumed abandoned and made available to the school board nearest the drilling unit. Current law requires such escrowed proceeds to be disposed of pursuant to the Uniform Disposition of Unclaimed Property Act.	Failed in House Finance.
92.	SB 910	Virginia Oil and Gas Act; sampling and replacing contaminated wells. Increases from 750 feet to 1,320 feet the radius of surface lands around gas wells within which well operators have a right to enter and obtain water samples from water wells and are required to replace contaminated water supplies.	Passed both houses and approved by governor.
93.	SB 911	Orphaned Well Fund; surcharge raised on permit fees that add to the fund. Raises from \$50 to \$200 the surcharge to be paid by a gas or oil operator for a permit to conduct any activity other than geophysical operations, and contains other wording amendments.	Passed both houses and approved by governor.
94.	SB 1291	Hydraulic fracturing information distribution by DMME; provisions regarding trade secrets. See related SB 1292 (#95). Companion bill is HB 1679 (#88); please see that bill for summary.	Reported from Senate General Laws and Technology; failed in Senate Finance.
95.	SB 1292	Virginia Freedom of Information Act (FOIA); exclusion for hydraulic fracturing trade secrets submitted to DMME. Companion bill is HB 1678 (#87); please see that bill for summary.	Reported from Senate General Laws and Technology; failed in Senate Finance.
96.	SB 1398	Coal combustion residuals units: required assessments of closure plans and water-pollution impacts/corrective actions. Requires the owner or operator of a coal combustion residuals unit (CCR unit) located in the Chesapeake Bay watershed (that is, Dominion Energy) to identify water pollution and address corrective measures to resolve it, evaluate the clean closure of the CCR unit by recycling the ash for use in cement or moving it to a landfill, and demonstrate the long-term safety of the CCR unit; requires the owner or operator of each CCR unit	Passed both houses and approved by governor with recommendation.

		to transmit its assessment to the DEQ and other agencies or legislative committees by December 1, 2017; requires the DEQ director to delay the issuance of a permit to close any CCR unit until May 1, 2018, or the effective date of any legislation adopted during the 2018 Regular Session of the General Assembly that addresses the closure of CCR units, whichever occurs later.	
97.	SB 1399	Coal combustion by-product impoundments: closure requirements and closure deadline of July 1, 2021. Would have directed the DEQ to require the closure of surface impoundments of coal combustion by-products, commonly called coal ash ponds, by July 1, 2021, for impoundments managed at an electric utility or independent power producer prior to December 22, 2016.	Stricken from Senate ACNR at request of patron.
98.	SB 1470	Coal tax; extends coal employment and production incentive tax credit and limits aggregate amount of credits that may be allocated or claimed. Companion bill is HB 2198 (#89); please see that bill for summary.	Passed both houses but vetoed by governor (veto sustained in Senate).

PUBLIC SERVICE COMPANIES

99.	HB 1438	Natural gas companies: right of entry to require identifying specific date of intended entry. Would have required that a natural gas company's notice of intent to enter upon a property set forth the "specific" date of the intended entry. Current law does not use the term "specific."	Failed in House Commerce and Labor.
100.	HB 1465	Electric energy consumption reduction goal: progress reports by DMME and SCC. Companion bill is SB 990 (#114); please see that bill (which passed) for summary.	Failed in House Commerce and Labor.
101.	HB 1632	Renewable energy production: property tax credit. Would have established a tax credit for renewable energy property placed in service, equal to 35 percent of the installed cost of the renewable energy property, with certain restrictions.	Failed in House Finance.
102.	HB 1658	Electric utility customer account information to be considered confidential. Would have provided that an electric utility or any officer, agent, employee of the electric utility, or any other person the electric utility authorizes to receive customer account information in connection with any business of the electric utility, shall not knowingly disclose any customer account information to any person without the consent of the customer (subject to certain exceptions).	Failed in House Commerce and Labor.
103.	HB 1671	Natural gas utilities: changes to provisions for exemption on cap to investments in eligible infrastructure for establishing base rates. Exempts any natural gas utility serving fewer than 2,000 residential customers and fewer than 350 commercial and industrial customers (in the year in which the utility makes an investment for qualifying projects) from the provision that limits the amount of investment that a natural gas utility may make in qualifying projects to one percent of its net plant investment that was used in establishing base rates in its most recent rate case. Legislation in 2012 established a mechanism for natural gas utilities to recover the eligible infrastructure development costs of a qualifying project through	Passed both houses and approved by governor with a recommendation; both houses concurred in governor's recommendation.

		future rates. The previous exemption to the one-percent cap, enacted in 2013, applied to any natural gas utility serving fewer than 1,000 residential customers and fewer than 250 commercial and industrial customers in such year. As passed by both houses, the 2017 bill would have restricted the exemption to Virginia's coalfield areas only, but a governor's recommendation removed that language. Companion bill is SB 1289 (#119).	
104.	HB 1703	Electric and natural gas utilities: required to meet energy-efficiency goals. Would have required investor-owned electric utilities, cooperative electric utilities, and investor-owned natural gas distribution utilities to meet incremental annual energy efficiency goals (electric utilities: two percent savings by 2032 and thereafter; gas utilities: one percent savings by 2032 and thereafter).	Failed in House Commerce and Labor.
105.	HB 1760	Hydropower: recovery of costs of pumped hydroelectricity generation and storage facilities in coalfield region. Authorizes an investor-owned electric utility to petition the SCC for approval of a rate-adjustment clause for recovery of the costs of one or more pumped hydroelectricity generation and storage facilities that utilize associated on-site or off-site renewable energy resources as all or a portion of their power source, and such facilities and associated resources are located in the coalfield region of the Commonwealth. The measure provides that the requirement that a utility demonstrate that it has considered and weighed alternative options (including third-party market alternatives) in its selection process applies only to a generation facility that is described in clauses (i) and (ii) of subdivision A6 of Sec. 56-585.1 of the <i>Virginia Code</i> . See similar SB 1418, #122.	Passed both houses and approved by governor.
106.	HB 1766	Utility Facilities Act: associated facilities of an electrical transmission line; SCC approval to meet local planning/zoning requirements. Provides that the issuance by the SCC of a certificate of public convenience and necessity for construction of an electrical transmission line of 138 kilovolts, plus any "associated facilities," shall be deemed to satisfy local comprehensive plan requirements and all local zoning ordinances with respect to the transmission line and associated facilities. The measure defines "associated facilities" as any station, substation, transition station, and switchyard facilities to be constructed <i>outside of any county operating under the county executive form of government that is located in Planning District 8</i> (e.g., Prince William County). Companion bill is SB 1110, #117.	Passed both houses and approved by governor.
107.	HB 1800	Renewable energy: allows individual retail customers to enter into third party power purchase agreements for generating renewable energy. Would have authorized individual retail customers of electric energy to own and operate (or contract with others to own, operate, or both) a renewable electrical generating facility on the customer's premises under a third-party power purchase agreement that meets the "eligible customer-generator" requirements for nonresidential customers and agricultural customers under the Commonwealth's net energy metering program (requirements in subsection B of <i>Virginia Code</i> Section 56-594). See related SB 918 (#113).	Failed in House Commerce and Labor.

108.	HB 2112	Community renewable energy projects: SCC to adopt rules to authorize and for their operation. Would have requires the SCC to adopt rules for operation of community renewable projects, defined in the bill as solar or wind-powered electric generation facility with a capacity of not more than 20 megawatts and operated so that the electricity generated by the facility belongs to the project's subscribers; the facility could have been owned either by the investor-owned electric utility or distribution cooperative in whose service territory the facility is located or a for-profit or nonprofit entity, which may be an entity entirely owned by or consisting of subscribers, that contracts to sell the electricity generated by the facility to the retail utility. The measure would have provided that neither the owner of a project nor its subscribers are public utilities; that prices paid for subscriptions in projects shall not be subject to regulation by the Commission; that the retail utility purchase all of the electricity generated by the project and that the purchase of the electricity by the utility shall take the form of a credit against the utility's electric bill to each of the project's subscribers; and that the SCC formulate and implement policies to encourage the following: ownership by customers of project subscriptions and of other forms of distributed generation, development of projects that result in lower overall total costs for the retail utility's customers, and successful financing and operation of subscriber-owned projects. Companion bill is See SB 1208 (#118).	Failed in House Commerce and Labor.
109.	HB 2291	Electric utilities: cost recovery for modifications to nuclear generation facilities. Adds the costs of a system or equipment upgrade, system or equipment replacement, or other cost reasonably appropriate to extend the combined operating license for, or the operating life of, nuclear generation facilities to the types of electric-generation construction activities for which an investor-owned electric utility may petition the SCC for a rate-adjustment clause for cost recovery. The measure also does the following: *limits to certain new generation facilities the scope of the requirement that a utility demonstrate that it has considered and weighed alternative options, including third-party market alternatives, in the course of purchasing new facilities; *provides that a utility's costs incurred in extending the combined operating license for, or the operating life of, a nuclear generation facility shall be deferred on the books and records of the utility until the later of the entry of a final order in the proceeding or until the implementation of any applicable approved rate-adjustment clauses; *prohibits a utility, prior to January 1, 2020, from recovering through a rate-adjustment clause certain costs related to extensions of the combined operating license for or the operating life of a nuclear generation facility; and provides that costs recovered through the utility's rates for generation and distribution services as of January 1, 2017, that are associated with a utility's existing nuclear generation facilities are not recoverable through a specified rate-adjustment clause.	Passed both houses and approved by governor.
110.	HB 2358	Water utilities: regarding temporary and interim rate increases during SCC consideration of rate-increase request. Extends from 150 to 180 days the maximum period that the SCC is authorized to suspend the implementation of a	Passed both houses and approved by governor.

		proposed rate increase rates; the measure applies only to investor-owned water utilities <i>not</i> subject to <i>Virginia Code</i> Chapter 10.2:1, “Small Water and Sewer Public Utility Act” (Sec. 56-265.13:1 <i>et seq.</i>).	
111.	SB 813	Solar generation facilities: cost-recovery provisions. For proposed generating facilities in the Commonwealth, using energy derived from sunlight, and declared by statute to be in the public interest, the measure would have exempted investor-owned electric utilities from the requirement under cost-recovery law (<i>Virginia Code</i> Section 56-585.1 , “Generation, distribution, and transmission rates after capped rates terminate or expire”) that, in a proceeding for approval to construct a generating facility, the utility demonstrate that it has considered and weighed alternative options, including third-party market alternatives. For proposed generating facilities, the measure would also have directed the following: 1) that any cost incurred or projected to be incurred by a utility in connection with such a generation facility is reasonable and prudent if the costs of the generation facility do not exceed by <i>more than 10 percent</i> the cost that would be incurred in the construction and operation of a combined-cycle combustion turbine generation facility with the same capacity; and (ii) any rate increase as a result of construction and operation of such a generation facility is reasonable if the projected rate increase does not exceed by <i>more than two percent</i> the projected increase in rates that would occur if the utility constructed and operated a combined-cycle combustion turbine generation facility with the same capacity.	Failed in Senate Commerce and Labor.
112.	SB 917	Electric utility regulation: agricultural net energy metering.	Incorporated by Senate Commerce and Labor into SB 1394 (see #55 above).
113.	SB 918	Renewable energy: allows individual retail customers to enter into third party power purchase agreements for generating renewable energy. Would have replaced the pilot program enacted in 2013 that authorized certain third-party power purchase agreements providing financing of certain renewable generation facilities. The existing pilot program applies only to Dominion Energy and sets the maximum size of a renewable generation facility at one megawatt; the programs authorized by this measure would have applied to all electric utilities and would have set no limits on facility size. The measure would have required the SCC to establish third-party power purchase agreement programs for each electric utility, and would have exempted sellers under third-party power purchase agreements from being defined as a public utility, public service corporation, public service company, or electric utility on the basis of electricity sale from or ownership or operation of a renewable generation facility. See related HB 1800 (#107).	Failed in Senate Commerce and Labor.
114.	SB 990	Electric energy consumption reduction goal: progress reports by DMME and SCC to be required. Directs the DMME, in consultation with the staff of the SCC, to report annually (starting by December 2018) on progress the toward the goal adopted in 2007 of reducing, by 2022, the statewide consumption of electric energy by retail customers by an amount	Passed both houses and approved by governor.

		equal to 10 percent of the amount of retail electric energy consumed in 2006. The bill requires reports to the General Assembly, the governor, and the governor's Executive Committee on Energy Efficiency. Companion bill is HB 1465 (#100).	
115.	SB 1014	Water utilities: limits on rate increases. Would have prohibited the SCC from authorizing a water public utility, including a small water utility, from increasing its approved rates, fees, or charges through the use of a surcharge for non-revenue-generating infrastructure replacement or a similar surcharge pursuant to which the utility utilizes an automatic rate adjustment feature to increase its rates, fees, or charges; and would have provided that the rates, fees, and charges that the SCC has approved for a utility to charge its customers shall not be authorized to increase above the amounts in an order of the SCC unless specified in another order by the SCC.	Failed in Senate Commerce and Labor.
116.	SB 1095	Electric utility Transitional Rate Period passed in 2015. Would have provided that the Transitional Rate Period would conclude on the date the carbon emission guidelines for existing electric power generation facilities that the U.S. Environmental Protection Agency has issued are withdrawn, repealed, found to be invalid or unenforceable, or otherwise barred from being implemented, if that date precedes the date when the Transitional Rate Period is scheduled to conclude under existing law. Under legislation enacted in 2015, the period is scheduled to conclude on December 31, 2017, for Appalachian Power and on December 31, 2019, for Dominion Virginia Power. During that period, the SCC is barred from conducting a biennial review of the rates, terms, and conditions for these electric utilities.	Passed by indefinitely in Senate Commerce and Labor.
117.	SB 1110	Utility Facilities Act: associated facilities of an electrical transmission line; SCC approval to meet local planning/zoning requirements. Companion bill is HB 1766 (#106); please see that bill for summary.	Passed Senate; reported from House Commerce and Labor; failed in House Commerce and Labor after floor amendment.
118.	SB 1208	Community renewable projects: SCC adopt rules to authorize and for their operation. Would have required the SCC to adopt rules under which community renewable projects are authorized to operate. A community renewable project was defined in the bill as a solar or wind-powered electric generation facility with a capacity of not more than 20 megawatts, and the electricity generated by the facility belongs to the project's subscribers.	Incorporated by Senate Commerce and Labor into SB 1393 (see #121 below).
119.	SB 1289	Natural gas utilities: provisions for exemption on cap to investments in eligible infrastructure for establishing base rates. Companion bill is HB 1671 (#103); please see that bill for summary.	Passed both houses and approved by governor with a recommendation; both houses concurred in governor's recommendation.
120.	SB 1383	Coal ash treatment and recycling requirements. Would have required electric utilities to recycle as much of their stored	Stricken by Senate ACNR at request of

		coal ash as is imported into the Commonwealth each year.	patron.
121.	SB 1393	Community solar pilot programs: requirement for Dominion and Appalachian Power to conduct. Requires Dominion Virginia Power and Appalachian Power to conduct a community solar pilot program for retail customers. A pilot program will authorize the participating utility to sell electric power to subscribing customers under a voluntary companion rate schedule, and the utility will generate or purchase the electric power from eligible generation facilities (defined in the bill; with generating capacity not exceeding three megawatts [MW]) selected for inclusion in the pilot program. Pilot programs will have a three-year duration unless renewed or made permanent by appropriate legislation. The minimum generating capacity of all the eligible generating facilities in Appalachian Power's pilot program is 0.5 MW and in Dominion's pilot program is 10 MW; the maximum is 10 MW for Appalachian and 40 MW for Dominion. The measure has a number of details about SCC oversight of the programs. An enactment clause directs investor-owned utilities, prior to submitting a proposal for a pilot program, to examine options to facilitate the subscribing by low-income customers to the utility's pilot program. Another enactment clause requires participating utilities to disclose to subscribing customers the cost difference between the voluntary companion rate schedule and rate the customer would pay if not a subscriber.	Passed both houses and approved by governor.
122.	SB 1418	Hydropower: recovery of costs of pumped hydroelectricity generation and storage facilities in coalfield region. Authorizes an investor-owned electric utility to petition the SCC for approval of a rate-adjustment clause for recovery of the costs of one or more pumped hydroelectricity generation and storage facilities that utilize associated on-site or off-site renewable energy resources as all or a portion of their power source, and such facilities and associated resources are located in the coalfield region of the Commonwealth. The measure provides that the requirement that a utility demonstrate that it has considered and weighed alternative options, including third-party market alternatives, in its selection process <i>does not apply to these generation and storage facilities</i> . The construction of these generation and storage facilities is declared to be in the public interest, and in determining whether to approve such facility, the Commission is directed to construe liberally the provisions of Title 56. See similar HB 1760 (#105).	Passed both houses and approved by governor.
123.	SB 1423	Viewshed mitigation payments by electric utilities. Would have set the conditions under which an electric utility may make a payment for the purpose of mitigating adverse visual effects associated with the electric utility's construction, modification, expansion, or location of electric transmission lines.	Failed in Senate Commerce and Labor.
124.	SB 1457	Utility vegetation management activities by utilities: requirements for notices to property owners; civil penalties. Would have required utilities to give customers, landowners, and local governments notice by mail of planned vegetation management activities; required the SCC to require utilities to establish reasonable criteria for the conduct of	Failed in Senate Commerce and Labor.

		vegetation management activities; and prohibited vegetation management activities by any utility from altering, trespassing upon, or limiting the rights of any property owner.	
125.	SB 1492	Water utilities and retail rates. Requires that in any ratemaking proceeding for certain investor-owned water utilities that are part of a water utility network the SCC shall ensure that equal fixed and volumetric rates are charged for each customer class of every water utility that is in the water utility network; allows the SCC to aggregate the revenues and costs of the water utilities that are members of the applicable water utility network; and directs the SCC to order gradual rate adjustments over an appropriate period.	Passed both houses and approved by governor with a recommendation; both houses concurred in governor's recommendation.

WASTE DISPOSAL AND MANAGEMENT (INCLUDING HAZARDOUS MATERIALS AND SUBSTANCES)

126.	HB 1859	Non-federally managed hazardous sites inventory. Would have required the DEQ to publish and update annually an inventory of sites in Virginia of which DEQ is aware that meet certain criteria regarding the presence of hazardous wastes or other hazardous substances but which are not listed on the federal National Priorities List; and required owners of inactive nonfederally managed hazardous waste sites to notify DEQ of their existence.	Failed in House ACNR.
127.	HB 1600	Sanitary landfill gas collection and control system. Directs the DEQ and the Region 2000 Services Authority to continue to reduce the odor issues at the landfill operated by the authority in Campbell County and to report on their efforts to the General Assembly by November 1, 2017; and requires the authority to connect certain parts of its landfill gas-collection system to the existing collection system when its engineers advise it that the connections will operate efficiently.	Passed both houses and approved by governor.
128.	SB 884	Waste and recycling charges: liens on unpaid taxes. Would have provided that charges (and any penalty and interest) related to local recycling operations constitute a lien against the real property ranking on a parity with liens for unpaid taxes.	Failed in Senate Local Government.

WATER AND SEWER SYSTEMS

129.	HB 1460	Private wells regulation by Stafford County. Would have added Stafford County to the list of localities authorized to establish well construction and abandonment standards more stringent than standards adopted by the Board of Health. Companion bill is SB 1247 (#135).	Failed in House Health, Welfare and Institutions.
130.	HB 1669	Gas severance tax sunset date extension. Would have extended from 2018 to 2010 the sunset date for the local gas severance tax. See related HB 2169 (#131).	Failed in House Finance.
131.	HB 2169	Gas severance tax sunset date extension. Extends from January 1, 2018, to January 1, 2020, the sunset date for the local gas severance tax, dedicated to the local Coal and Gas Road Improvement Fund; the Virginia Coalfield Economic	Passed both houses and approved by governor.

		Development Fund; and water, sewer, and natural gas lines. Companion bill is SB 886 (#133).	
132.	HB 2477	Onsite sewage systems and private wells site-evaluation services by VDH. Directs the VDH to begin eliminating site evaluation and design services that the department provides for onsite sewage systems and private wells.	Passed both houses and approved by governor.
133.	SB 886	Gas severance tax sunset date extension. Companion bill is HB 2169 (#131); please see that bill for summary.	Passed both houses and approved by governor.
134.	SB 1189	Water and sewer service liens: rules for owners, lessees, or tenants. Separates <i>Virginia Code</i> provisions regarding water and sewer services provided to lessees or tenants of real property from provisions regarding water and sewer services provided to owners of real property; removes a locality's authority to waive a required written authorization by an owner for water or sewer services provided by a locality to a lessee or tenant (a copy of the lease between the lessee or tenant and the owner is acceptable authorization); provides that no lien can be placed on the property of an owner when a lessee or tenant has delinquent fees for water or sewer charges until the locality has made reasonable collection efforts and practices; provides that a lien against the lessee or tenant shall rank on a parity with a lien for unpaid taxes; provides that when a locality does not require a security deposit from a lessee or tenant to obtain water and sewer services, the locality shall waive its lien rights against the property owner; authorizes the locality or authority to provide a partial credit where excessive water and sewer charges result from an intentional cause; and provides that a locality or authority may not deny service to a new lessee or tenant when there are unpaid fees for services to a previous lessee or tenant unless a lien against the property owner is placed on the property.	Passed both houses and approved by governor.
135.	SB 1247	Private wells regulation by Stafford County. Companion bill is HB 1460 (#129); please see that bill for summary.	Failed in Senate Education and Health.
136.	SB 1569	Water and sewer fees: allowable calculation factors. Would have changed the standard a locality may use to calculate the charges for water and sewer connection services from "fair and reasonable" to "practicable and equitable," defined by a number of factors.	Passed Senate; reported from House Counties, Cities and Towns; failed on House floor.

WATERS OF THE STATE, PORTS AND HARBORS

Alexandria Combined Sewer Overflow (CSO) Bills

137.	HB 1423	Potomac River watershed combined sewer overflow outfalls: DEQ to identify owner; compliance required by 2027. Would have directed the DEQ to identify the owner of any CSO outfall that discharges into the Potomac River Watershed and to determine by July 2018 what actions by the owner are necessary to bring the outfall into compliance by with Virginia law, the federal Clean Water Act, and the Presumption Approach described in the CSO Control Policy of the U.S. Environmental Protection Agency (EPA). The CSO owner would	Failed in House ACNR.
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		have had until July 2027 to bring the CSO outfall into compliance. See related	
138.	HB 2383	Chesapeake Bay watershed combined sewer overflow outfalls: DEQ to identify owner, etc. Directs the DEQ to identify the owner of any CSO outfall that discharges into the Potomac River Watershed and to determine by July 2018 what actions by the owner are necessary to bring the outfall into compliance with Virginia law, the federal Clean Water Act, and the Presumption Approach described in the CSO Control Policy of the U.S. EPA. This bill would only apply to any CSO outfall owner or operator not under a state order or decree related to the CSO as of January 1, 2017; in effect, the bill applies to the City of Alexandria. The bill requires the City of Alexandria by July 2023 to initiate construction activities to bring the outfall into compliance, and by July 2025 to be in compliance. The governor proposed an amendment to extend the deadline for beginning construction to 2024 and for being in compliance to 2027, and to give the DEQ authority to grant six-month extensions of the deadline to no later than 2030 if the City is “in compliance with its permit requirements; unable to meet the deadline due to site conditions or engineering, construction, or federal permitting delays beyond the owner's control; and is in compliance with the annual reporting requirement....” The amendment was rejected by the General Assembly in the reconvened session on April 5, 2017. The governor subsequently signed the final bill, which requires the City by July 2023 to initiate construction activities to bring the outfall into compliance, and by July 2025 to be in compliance. Companion bill is SB 898 (#141).	Passed both houses; recommendations by governor not approved; governor approved bill without the recommendations.
139.	SB 818	Potomac River watershed combined sewer overflow outfalls: DEQ to identify owner; compliance required by 2027.	Incorporated into SB 898 (#141).
140.	SB 819	City of Alexandria Combined Sewer Overflow (CSO) system permit: requirement to assess overflows by 2029. Would have directed the SWCB to include in the next renewal of the Virginia Pollutant Discharge Elimination System permit for the CSO system of the City of Alexandria requirement that the City complete by January 1, 2029, an assessment of the discharges from CSO Number 001 into the Potomac River, including identifying any improvements meant to address discharges from any part of the City's CSO system and determining what control technologies would be required to meet applicable regulations.	Stricken from docket in Senate ACNR.
141.	SB 898	Potomac River watershed combined sewer overflow outfalls: DEQ to identify owner; actions towards compliance required. Companion bill is HB 2383 (#138); please see that bill for summary.	Passed both houses; recommendations by governor not approved; governor approved bill without the recommendations.

Other Waters of the State, Ports and Harbors Bills

142.	HB 1562	Dam Safety, Flood Prevention and Protection Assistance Fund grants to common interest communities. Authorizes the director of the Department of Conservation and Recreation (DCR) to disburse grants or loans to protect public safety and welfare from the Dam Safety, Flood Prevention, and Protection Assistance Fund to local governments that own a dam, to local governments for dams located within the locality, or to a private entity that owns a dam. Grants can be used for design, repair, and safety modifications of dams identified in safety reports. See also related SB 1079 (#155).	Passed both houses and approved by governor.
143.	HB 1619	Watershed discharge general permits: periodic review of load allocations. Directs the SWCB to incorporate into the general permit (under the Water Quality Management Planning Regulation) procedures by which the board will, every 10 years beginning in 2020, review load allocations to determine whether changes in the use of a facility have halted or reduced nutrient discharges; and (determine, prior to reissuing the general permit, the need for reallocations based on a variety of factors, including changes in treatment technologies and land use.	Passed House and Senate and approved by governor.
144.	HB 1860	Aboveground storage tanks: SWCB to regulate; fund; civil and criminal penalties; Would have directed the SWCB to regulate aboveground storage tanks that measure more than 5,000 gallons in capacity and are used to contain dangerous substances other than oil, including adopting regulations that establish construction standards, requirements for registration, certification, and inspection, and other requirements of tank owners and establish a schedule of fees. Would also have authorized the SWCB to require the owner to undertake corrective action, or to undertake its own corrective action, in the event of a release of a regulated substance; required tank owners to register their tanks, develop release response plans, upgrade certain older tanks, install containment infrastructure for certain tanks, notify certain parties in the event of a release of a regulated substance, and demonstrate their financial responsibility; created the Aboveground Storage Tank Fund; and provided for civil and criminal penalties for violations.	Failed in House ACNR.
145.	HB 1870	Deleterious substances discharge into state waters: required notice. Would have required any person who unlawfully discharges any deleterious substance into state waters to give written notice to the SWCB; current law requires written notice to be given only to the DEQ. Would also have required the SWCB or the DEQ to give the reported discharge information to local newspapers, television stations, and radio stations “as soon as practicable” after receiving it; current law requires only notice to “a local newspaper” and does not specify “as soon as practicable.”	Failed in House ACNR.
146.	HB 2008	Stormwater management: 10,000 square foot minimum disturbance in Chesapeake Bay Preservation Areas. Would have increased from 2,500 square feet to 10,000 square feet the minimum area of land disturbance within a Chesapeake Bay Preservation Area that triggers the applicability of erosion or stormwater management programs; current law establishes a	Failed in House ACNR.

		10,000-square-foot threshold for land-disturbing activities that are located <i>outside</i> of Chesapeake Bay Preservation Areas.	
147.	HB 2009	Stormwater management: administration of program by certified third party (not including enforcement). Authorizes Virginia Stormwater Management Program entities, and Virginia Erosion Control and Stormwater Program entities, to hire certified third-party professionals to administer any or all aspects of a program for the management of stormwater and erosion, including plan review and inspection but not including enforcement.	Passed both houses and approved by governor.
148.	HB 2012	Stormwater management: failed best management practice definition and responsibilities. Would have directed the SWCB to adopt regulations that (i) define a failed best management practice (BMP), (ii) establish criteria for determining whether a particular installed BMP qualifies as a failed BMP, and (iii) direct the DEQ, at the request of a locality, to assume, by contract with the locality, the responsibility for enforcing the operation and maintenance obligations of the owner of a failed BMP.	Failed in House ACNR.
149.	HB 2076	Stormwater management plans: professional licensee signature requirement. Directs the SWCB to adopt regulations requiring that all final stormwater plan elements, specifications, or calculations whose preparation requires a license in engineering, architecture, soil science, or a related profession be signed and sealed by a licensed professional. Companion bill is SB 1127 (#156).	Passed both houses and approved by governor.
150.	HJ 580	Ports impact study. Would have directed JLARC to review and update its 1999 study “Review of the Impact of State-Owned Ports on Local Governments.” Identical to HJ 648 (#151).	Failed in House Rules.
151.	HJ 648	Ports impact study. Identical to HJ 580 (#150); please see that bill for summary.	Failed in House Rules.
152.	HJ 677	Invasive mussels study. Would have requested the DGIF to study the current and potential impact of the Zebra Mussel and Quagga Mussel in Virginia waters and propose strategies, campaigns, and necessary state actions to protect Virginia waters from infestation by these invasive, non-native species.	Failed in House Rules.
153.	SB 906	Snakehead fish and Zebra Mussel. Prohibits the placement of the Snakehead fish or Zebra Mussel from any location into state waters; current law only prohibits the introduction of these non-native, invasive species from <i>outside</i> the Commonwealth.	Passed both houses and approved by governor.
154.	SB 967	Port authority powers transfer in City of Chesapeake. Permits the city council of Chesapeake to transfer the powers of the Chesapeake Port Authority to the Chesapeake Economic Development Authority; such action will dissolve the Chesapeake Port Authority.	Passed both houses and approved by governor.
155.	SB 1079	Dam Safety, Flood Prevention, and Protection Assistance Fund: allows grants to “common interest communities.” Would have authorized the director of the DCR to disburse moneys from the Fund in the form of grants to “common interest communities” that own dams in order to protect public safety and welfare. See also related HB 1562 (#142).	Failed in Senate Finance.

156.	SB 1127	Stormwater management plants: professional licensee signature requirement. Companion bill is HB 2076 (#149); please see that bill for summary.	Passed both houses and approved by governor.
157.	SB 1270	Ohio River Basin Commission. Repeals sections of the <i>Virginia Code</i> relating to participation by Virginia in this commission, which was created in 1971 and terminated in 1981.	Passed both houses and approved by governor.
158.	SB 1355	Riparian owner rights regarding navigation over oyster or clam grounds. Would have provided that the existing ability of a landowner to open a channel includes the actions of marking a channel, dredging a navigable channel for access to his property, and participating with a locality to dredge a channel outside his riparian area. Would also have required the VMRC to include navigation specifically as one of the factors the commission considers in determining whether to grant or deny a lease for the use of state-owned bottomlands; and would have expanded the area of state-owned submerged beds that are potentially off limits for oyster planting by including navigation projects that are authorized by the Commonwealth or by a locality among the areas where no lease shall be granted (current law exempts navigation projects from leasing only when they are authorized by Congress).	Stricken in Senate ACNR at request of patron.
159.	SB 1415	Virginia Port Authority Board of Commissioners: changes to membership. Provides that the members of the Virginia Port Authority's Board of Commissioners, appointed by the governor, no longer serve "at the pleasure of the governor." Also changes—from non-voting <i>ex officio</i> member to voting member—the status of the member representing the Port of Richmond and of the member representing the Virginia Inland Port.	Passed both houses and approved by governor.
160.	SJ 246	Inland port study for Roanoke and New River Valley. Would have requested the Secretary of Transportation to study the feasibility of an additional inland port in the Roanoke region and the New River Valley.	Failed in Senate Rules.

MISCELLANEOUS OTHER CATEGORIES

161.	HB 1964	Creating position of Secretary for Coastal Protection and Flooding Adaptation. Would have created the position of Secretary for Coastal Protection and Flooding Adaptation, who would have been responsible for consolidating into a single office the resources for coastal flooding threats and adaptation; providing direction, ensuring accountability, and developing a statewide coastal flooding adaptation strategy; and, along with the Secretary of Natural Resources, identifying sources of funding for needed implementation of strategies for coastal protection and flooding adaptation. Companion bill is SB 1349 (#162). <i>From Administration of Government category.</i>	Reported from House General Laws; failed in House Appropriations.
162.	SB 1349	Creating position of Secretary for Coastal Protection and Flooding Adaptation. Companion bill is HB 1964 (#161); please see that bill for summary. <i>From Administration of Government category.</i>	Reported from Senate ACNR and Senate Finance; failed on Senate floor.

163.	HB 2089	Lead testing of potable water required in public schools. Would have required each local school board to develop and implement a plan to test for lead the potable water from sources identified by the U.S. EPA as high priority; the testing was to be as often as is required of the public water system supplying the schools, giving priority in such testing plan to schools whose school building was constructed, in whole or in part, before 1986; and any test results showing lead at or above 20 parts per billion would have required the school division to develop and implement an remediation plan. <i>From Education category.</i>	Failed in House Education.
164.	HJ 704	Study of environmental education by Secretary of Natural Resources and Secretary of Education. Would have requested the two secretaries to convene a group of stakeholders to study the delivery of environmental education in the Commonwealth, in light of the budget reductions in 2016 that eliminated all staff positions within the DCR's Office of Environmental Education. <i>From Education category.</i>	Failed in House Rules.
165.	HJ 545	Constitutional amendment (first resolution); powers of General Assembly; suspension or nullification of administrative rule or regulation. Provides that the General Assembly may suspend or nullify any or all portions of any administrative rule or regulation by a joint resolution agreed to by a majority of the members elected to each house.	Passed both houses and approved by governor; first passage (amendments require passage by two consecutive General Assemblies to be put before voters).
166.	SJ 295	Constitutional amendment (first resolution); legislative review of administrative rules. Grants to the General Assembly the authority to review any administrative rule to ensure it is consistent with the legislative intent of the statute that the rule was written to interpret, prescribe, implement, or enforce.	Passed both houses and approved by governor; first passage.
167.	SJ 331	Constitutional amendment (first resolution); property tax; exemption for flooding remediation, abatement, and resiliency efforts. Provides that the General Assembly may authorize a county, city, or town to partially exempt from taxation any improved real property subject to recurring flooding upon which flooding abatement, mitigation, or resiliency efforts have been undertaken.	Passed both houses and approved by governor; first passage.

NOTICES

If you would like to receive **regular e-mail notifications** about meetings, reports, and other items related to water quality and water monitoring, you may do so by joining the **Virginia Water Monitoring Council**; contact Jane Walker at (540) 231-4159 or janewalk@vt.edu.

For an online list of Virginia water-related **government meetings** (updated weekly), please see the Virginia Water Central News Grouper posts at <https://vawatercentralnewsgrouper.wordpress.com/?s=Virginia+Water-related+Government+Meetings>.

For an online list of Virginia water-related **conferences and other events** (updated at least monthly), please see the Virginia Water Central News Grouper's "Quick Guide to Virginia Water Events," at <http://vawatercentralnewsgrouper.wordpress.com/?s=Quick+Guide>.

For an online list of water-related **conferences and meetings outside of Virginia** (updated quarterly), please see the Virginia Water Central News Grouper's "Water Conference Sampler from around the United States and Elsewhere," at <http://vawatercentralnewsgrouper.wordpress.com/?s=Water+Conference+Sampler>.

All Web sites listed in this section were functional as of 8/30/17.

Virginia Well Inventory Maps Released in August 2017 by Virginia Tech

In August 2017, the Virginia Tech Department of Biological Systems Engineering (BSE) released two maps showing the range of the number of private wells and the percentage of the population served by private wells for each Virginia county. As of 8/22/17, the maps are available online at the Virginia Department of Health Web site, at <http://www.vdh.virginia.gov/environmental-health/onsite-sewage-water-services/private-well-program/>; they will eventually be posted on the site of the Virginia Household Water Quality Program, online at <http://www.wellwater.bse.vt.edu/>. The maps were created by Jessica Slagle, a student intern with BSE, based on data from the Virginia State Water Resources Plan and the U.S. Census. For more information, contact Erin Ling, the coordinator of the Household Water Quality Program, at (540) 231-9058 or wellwater@vt.edu.

Eastern Virginia Groundwater Management Advisory Committee Final Report Released in August 2017

On August 4, 2017, the final report of the Eastern Virginia Groundwater Management Advisory Committee was transmitted to the chair of the Virginia State Water Commission and the director of the Virginia Department of Environmental Quality (DEQ). A link to the final report, along with other information about the work of the Advisory Committee, is available online at <http://www.deq.virginia.gov/Programs/Water/WaterSupplyWaterQuantity/EasternVirginiaGroundwaterManagementAdvisoryCommittee.aspx>.

The 2015 Virginia General Assembly passed [HB 1924](#) and [SB 1341](#), companion bills that established this Advisory Committee to assist the State Water Commission and the DEQ in developing, revising, and implementing a management strategy for groundwater in the Eastern Virginia Groundwater Management Area.

The Advisory Committee's report includes 12 main recommendations, summarized below from pages 9-10 of the report's Executive Summary:

- *Commonwealth to support storage, recovery, and recharge projects;
- *Commonwealth to promote development of alternative water sources;
- *General Assembly to lengthen the maximum groundwater permit time to 15 years;
- *General Assembly to establish incentives for voluntary regional planning efforts;
- *General Assembly to create incentives for local government and wellowners to connect to public water supply systems when reasonably available;
- *General Assembly to require new non-agricultural irrigation wells only from unconfined aquifers in the Eastern Virginia Groundwater Management Area (EVGMA);
- *General assembly to encourage use of ponds, including stormwater ponds, for agricultural irrigation;
- *DEQ to establish an annual "State of the Water Resources" forum;
- *General Assembly to authorize a groundwater banking system;

*General Assembly to direct DEQ to create a framework for an EVGMA groundwater-trading program;

*General Assembly provide funding for a “robust” groundwater management program (directed particularly at seven listed priority activities);

*General Assembly to “fund the essential operation of DEQ to successfully manage the groundwater resources.”

An August 2017 Assessment of the James River at Richmond, 45 Years After Passage of the Federal Clean Water Act

[The James River at 45: From toilet to treasure, it's a modern-day survival tale](http://www.richmond.com/the-james-river-at-from-toilet-to-treasure-it-s/article_8647ad24-ad91-5f7a-a39b-c00750603436.html), by Michael Paul Williams, *Richmond Times-Dispatch*, 8/13/17, examines the improvements seen in the James River at Richmond in the 45 years since the federal Clean Water Act was passed in 1972, and the ways that the river today has become a focal point for residents, businesses, and tourism. Available online at http://www.richmond.com/the-james-river-at-from-toilet-to-treasure-it-s/article_8647ad24-ad91-5f7a-a39b-c00750603436.html, or contact the newspaper at 300 E. Franklin Street, Richmond, VA 23219; (804) 649-6000; e-mail: content@richmond.com.

An August 2017 Assessment of Hopewell, Va., 42 Years After the Kepone Disaster in the James River

[VA town tries to move on 40 years after Kepone disaster](http://www.bayjournal.com/article/va-town-tries-to-move-on-40-years-after-kepone-disaster), by Whitney Pipkin, *Bay Journal*, 8/23/17, examines the Kepone contamination in Hopewell that was first revealed in 1975 and that has had long-term impacts on that city and its residents, on the James River, and on environmental and water-resources awareness and efforts in Virginia. Available online at <http://www.bayjournal.com/article/va-town-tries-to-move-on-40-years-after-kepone-disaster>; on contact *Bay Journal* at (717) 428-2819.

Detailed Investigative Report on Munitions Disposal at Virginia’s Radford Army Ammunition Plant by ProPublica in July 2017

“Open burns, ill winds,” published by ProPublica on July 20, 2017, is a long, detailed, investigative article examines the U.S. military’s practices for disposing of munitions waste. It focuses specifically on the use of open-air burning at the Radford Army Ammunition Plant (RAAP) along the New River in Montgomery County, Virginia, and concerns over potential health impacts of air emissions from that kind of disposal. It examines permitting and permit monitoring issues for federal and state regulators regarding potential water, air, and health contaminants; the history of disposal practices at other various locations in the United States and in other countries; and concerns and questions raised by local residents. The article is available online at [The article is available online at https://www.propublica.org/article/military-pollution-open-burns-radford-virginia](https://www.propublica.org/article/military-pollution-open-burns-radford-virginia). According to its Web site, <https://www.propublica.org>, ProPublica is “an independent, non-profit newsroom that produces investigative journalism in the public interest.” For some earlier details on the RAAP and its incineration-practice issues, please see [this Virginia Water Central News Grouper post](https://vawatercentralnewsgrouper.wordpress.com/2015/06/16/hazardous-waste-open-air-incineration-at-radford-army-ammunition-plant-under-scrutiny-in-permit-renewal-process-during-2015/). (<https://vawatercentralnewsgrouper.wordpress.com/2015/06/16/hazardous-waste-open-air-incineration-at-radford-army-ammunition-plant-under-scrutiny-in-permit-renewal-process-during-2015/>).

A Diplomatic Contest Resulting in More Potomac River Submerged Aquatic Vegetation in June 2017

On June 5, 2017, embassy officials from several nations met at the Potomac River in Mason Neck State Park, in Fairfax County, Va., to plant Wild Celery sprouts raised from seed in embassy offices from January to June. China won the friendly competition to see which embassy could raise the best collection of this submerged aquatic plant, one of the community of submerged plants—known as SAVs or bay grasses—upon which the Chesapeake Bay and its tidal tributaries depend for water quality and for wildlife food and habitat. The project was organized by the U.S. State Department’s Office of Foreign Missions and the Chesapeake Bay Foundation (CBF), which for 17 years has run the “Grasses for the Masses” program to educate people about this component of the Bay ecosystem. More information and a video (1 min./57 sec.) of the June 5 planting event is available from the Voice of America, online at <https://www.voanews.com/a/diplomats-plant-seagrass-celbrate-world-environment-day/3888704.html>. More information about the Grasses for the Masses program in a July 2017 article in “Headwaters,” from the Virginia office of CBF, available online (as a PDF) at <http://www.cbf.org/document-library/cbf-publications->

[brochures-articles/headwaters.pdf](#). **Additional source:** “Thanks to diplomats’ efforts, the grass is greener in their backyard estuary,” by Whitney Pipkin, *Bay Journal*, July-August 2017.

Healthy Watersheds Forest Retention Project Report Released in June 2017

On June 30, 2017, a project team from the Virginia Department of Forestry (VDOF), the Pennsylvania Department of Conservation and Natural Resources, and the Rappahannock River Basin Commission released “Healthy Watersheds Forest Retention Project Phases 1 and 2 Final Report.” The report (page 10) asserts that it “validated the working hypothesis” that localities can realize “substantial savings” from retaining or increasing forestlands that, in turn, reduce the inputs of nitrogen, phosphorus, and sediments to Chesapeake Bay waters. The report includes sections on tax and fiscal policy tools that state and local governments can use to promote forestland. A forestland ecosystem services literature review, prepared by the Virginia Water Resources Research Center, is included as Appendix B of the report. The 199-page report is available online at the VDOF main Web page, <http://www.dof.virginia.gov/>, as of July 2017; or contact VDOF at 900 Natural Resources Drive, Charlottesville, VA 22903; phone (434) 977-6555.

Economic Impact of Virginia’s Agriculture and Forestry Described in May 2017 Report

In May 2017, the Weldon Cooper Center for Public Service at the University of Virginia released “The Economic Impact of Virginia’s Agriculture and Forest Industries.” The 71-page report, written by Terance J. Rephann, is available online (as of July 2017) at the the Virginia Department of Agriculture and Consumer Services (VDACS) Web site, <http://www.vdacs.virginia.gov/>; the Virginia Department of Forestry (VDOF) Web site, <http://www.dof.virginia.gov/>; or contact VDACS at P.O. Box 1163, Richmond, VA 23218, phone (804) 786-3501; or VDOF at 900 Natural Resources Drive, Charlottesville, VA 22903, phone (434) 977-6555.

Chesapeake Bay Expertise Database Started in June 2017

In June 2017, the Chesapeake Research Consortium announced the start of the Chesapeake Bay Expertise Database (CBED). The database is available online at <http://chesapeake.org/expertise-1/>, and experts from all areas of science (social, natural, and engineering) related to management of the Bay are encouraged to register. Researchers, resource managers, and other Bay-related workers are encouraged to register. The **Chesapeake Research Consortium**, online at <http://chesapeake.org/>, is a non-profit association of seven research and education institutions in the Bay region: Johns Hopkins University (Baltimore, Md.), Old Dominion University (Norfolk, Va.), Pennsylvania State University (State College, Penn.), Smithsonian Institute (Washington, D.C.), the University System of Maryland (headquartered in Baltimore), Virginia Institute of Marine Science (Gloucester Point, Va.), and Virginia Tech (Blacksburg, Va.).

Reforestation for History, Habitat, and Water Quality at Prince William County Civil War Battlefield

In Spring 2017, volunteers and the Prince William County Department of Public Works planted over 160 native tree seedlings in Bristoe Station Battlefield Heritage Park in an effort to help restore the appearance of the area as it was during the Civil War. The reforestation effort also aims to improve wildlife habitat and water quality in and around a park stream that flows into Broad Run (in turn, a Potomac River tributary), which is on Virginia’s impaired-waters list. A description of the project is available in “Seeing the Forest Through the Trees at Bristoe Station Battlefield,” *Prince William Living*, 4/24/17, available online at <https://princewilliamliving.com/2017/04/seeing-the-forest-through-the-trees-at-bristoe-station-battlefield/>.

Detecting Climate Change in Chesapeake Bay

“Detecting Climate Change in Chesapeake Bay” is an effort by several public and private partners to document local, recognizable impacts of climate change in the Chesapeake region and to inform people about them. The Web site for the effort, online at <http://www.chesapeakeedata.com/changingchesapeake/>, states that it is a “public/private partnership [among] the Chesapeake Bay National Estuarine Research Reserves, the National Centers for Coastal Ocean Science, the University of Maryland Center for Environmental Science, and Chesapeake Environmental Communications [to] use local data to define the links between climate change and environmental impacts to Chesapeake Bay.” Scientists participating in the effort have examined 114 years of data from Bay locations in Virginia and Maryland. A news media account of the efforts to inform people about Bay-region impacts of climate change is “[Research shows significant ways climate already has changed for the Chesapeake](#),” *Baltimore Sun*, 3/31/17, available online at

<http://www.baltimoresun.com/health/maryland-health/bs-md-chesapeake-climate-change-20170331-story.html>.

Virginia Clean Water Financing Programs under the Va. Dept. of Environmental Quality

The Virginia Department of Environmental Quality (DEQ), on behalf of the State Water Control Board and with financial management by the Virginia Resources Authority, operates several water-quality financing programs under the collective term of the Virginia Clean Water Revolving Loan Fund (VCWRLF). Previously known as the Virginia Revolving Loan Fund, the VCWRLF began in 1987, focusing only on low-interest loans to localities for wastewater system infrastructure improvements. As of March 2017, the VCWRLF included not only the Wastewater Loan Program but also the the Brownfield Loan Program, the Land Conservation Loan Program, the Stormwater Loan Program, the Living Shorelines Program, and the Water Quality Improvement Fund, and the Agricultural Best Management Practices Program (suspended indefinitely). Information about these programs is available online at

<http://www.deq.virginia.gov/Programs/Water/CleanWaterFinancingAssistance.aspx>; or by contacting Walter A. Gills, Program Manager, Department of Environmental Quality, Clean Water Financing & Assistance Program, P.O. Box 1105, Richmond, VA 23218; phone (804) 698-4133; e-mail: Walter.Gills@deq.virginia.gov. More information about the Virginia Resources Authority is available online at <http://www.virginiareources.org/>.

USGS National Water Quality Interactive Map Tool Released in April 2017

On April 4, 2017, the U.S. Geological Survey (USGS) announced the release of a new interactive mapper tool to show data from 40 years of water-quality monitoring, including from the National Water Quality Assessment program (NAWQA). The mapper is available online at

<https://nawqatrends.wim.usgs.gov/swtrends/>. According to the mapper's Web site, the tool shows stream trends in water chemistry and aquatic ecology (fish, invertebrates, and algae) for four time periods: 1972-2012, 1982-2012, 1992-2012, and 2002-2012. Following is an **excerpt from the USGS's April 4, 2017 news release** on the tool (available online at <https://www.usgs.gov/news/first-its-kind-interactive-map-brings-together-40-years-water-quality-data>): "For the first time, monitoring data collected by the USGS and 73 other organizations at almost 1,400 sites have been combined to provide a nationwide look at changes in the quality of our rivers and streams between the 1972 passage of the Clean Water Act and 2012. ...The interactive map can be used to see whether 51 water-quality constituents, like nutrients and pesticides, and 38 aquatic-life metrics, like the types and numbers of fish, macroinvertebrates, and algae, have increased, decreased, or remained the same at nearly 1,400 sites between 1972 and 2012. ...The map summarizes the first phase of the study—in which the USGS identifies streams that have been monitored consistently for long periods and reports the trends in those streams. In the second phase, to take place over the next several years, the USGS will assess whether and where billions in investments in pollution control have been effective, identify major causes of trends in U.S. stream quality, provide details on which chemicals are increasing or decreasing, and highlight whether any drinking water sources or aquatic ecosystems are at increased risk."

Updated Online Virginia Floodplain Mapping Tool Announced in February 2017

In late February 2017, the Virginia Governor's Office announced updates to the online Virginia Flood Risk Information System (VFRIS), a mapping tool to help users identify which properties are located within different zones of flooding probabilities. For example, the maps indicate lands within the **Special Flood Hazard Zone**, defined as the area that would be inundated by the flood event calculated to have a one-percent chance of being equaled or exceeded in any given year; this zone is also referred to as the "100-year floodplain." VFRIS was developed by the Virginia Institute of Marine Science's Center for Coastal Resources Management in partnership with the Virginia Department of Conservation and Recreation (DCR), which is the agency responsible for the Virginia's floodplain management program. The revised VFRIS is available online at <http://www.dcr.virginia.gov/dam-safety-and-floodplains/fpvfris>. **Additional information source:** "Governor McAuliffe Announces Updates to Virginia Flood Risk Information System; Free online tool helps Virginians plan for flood-related emergencies and develop resiliency strategies," Virginia Governor's Office News Release, 2/28/17; available online at <http://governor.virginia.gov/newsroom/newsarticle?articleId=19611>.

An Overview of Antarctic Ice Developments, in 7/12/17 and 3/8/17 PBS NewsHour Videos

Loss of giant ice sections from Antarctica—the most recent a Delaware-sized piece that broke off in July 2017—is the subject of the following two PBS NewsHour videos.

“One of the biggest icebergs ever just broke off Antarctica. Here’s what scientists want to know,” broadcast on July 12, 2017 (8 minutes/26 seconds) describes this July 2017 break-off of the Delaware-sized iceberg and gives background on Antarctica’s ice geography, other notable ice rifts, and scientists’ efforts to assess the connection of these developments to climate changes and their potential for contributing to sea-level rises; the video is available online at <http://www.pbs.org/newshour/bb/one-biggest-icebergs-ever-just-broke-off-antarctica-heres-scientists-want-know/>.

“How scientists are tracking a massive iceberg in the making,” broadcast on March 8, 2017 (5 min./55 seconds), describes some of the satellite technology and imagery used to track such large-scale changes; the video is available online at <http://www.pbs.org/newshour/bb/scientists-tracking-massive-iceberg-making/>.

More information on changes to the Larsen Ice Shelf is available from the National Aeronautic and Space Agency (NASA), “Antarctica’s Changing Larsen Ice Shelf,” online at <https://www.nasa.gov/image-feature/antarctica-s-changing-larsen-ice-shelf>.

An Introduction to the Marshall Islands’ Sea-level Rise and Freshwater Issues, in 6/25/17 PBS NewsHour Video

“Why cleaning up abandoned coal mines is so important — and difficult,” broadcast on the PBS NewsHour on November 28, 2016 (5 minutes/25 seconds), examines coal mine reclamation and particularly the clean-up of abandoned coal-mining sites. It discusses issues of waste left at abandoned mines, reclamation at active mines, potential water-quality impacts of abandoned mine wastes, and funding. The report includes examples from Pennsylvania and Wyoming. The video is available online at <http://www.pbs.org/newshour/bb/cleaning-abandoned-coal-mines-important-difficult/>.

A Brief History of Lead in Plumbing and Its Health Effects, in 9/28/16 PBS NewsHour Video

Lead in plumbing and consequently in drinking water—going as far back as the Roman Empire—is the focus of **“How and Why We Need to Get the Lead Out of Our Lives,”** broadcast on September 28, 2016, on the PBS NewsHour. The 6 min./50 second video, available online at <http://www.pbs.org/newshour/bb/need-get-lead-lives/>, also reviews the history of research into the effects of lead on health, particularly in children. Other NewsHour videos on lead are collected at <http://www.pbs.org/newshour/tag/lead/>. For more information on lead in drinking water, see the U.S. EPA, “Basic Information about Lead in Drinking Water,” online at <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>.

Communicating Science is Focus of National Academies Report in January 2017

In January 2017, the National Academies of Sciences, Engineering, and Medicine released *Communicating Science Effectively: A Research Agenda*. The 126-page report is available online at <https://www.nap.edu/catalog/23674/communicating-science-effectively-a-research-agenda>. From that site, here is a description of the publication: “Science and technology are embedded in virtually every aspect of modern life. As a result, people face an increasing need to integrate information from science with their personal values and other considerations as they make important life decisions about medical care, the safety of foods, what to do about climate change, and many other issues. Communicating science effectively, however, is a complex task and an acquired skill. Moreover, the approaches to communicating science that will be most effective for specific audiences and circumstances are not obvious. Fortunately, there is an expanding science base from diverse disciplines that can support science communicators in making these determinations. *Communicating Science Effectively* offers a research agenda for science communicators and researchers seeking to apply this research and fill gaps in knowledge about how to communicate effectively about science, focusing in particular on issues that are contentious in the public sphere.”

Climate Smart Agriculture in March/April 2016 Issue of *Colorado Water*

“Climate Smart Agriculture” was the theme of the March/April 2016 issue of *Colorado Water*, from the Colorado State University (CSU) Water Center and the Colorado Water Institute. The 40-page newsletter focused primarily on the Rocky Mountain State, but several articles discussed nationwide and worldwide aspects of climate change and its connections to agriculture. Of particular value in this broader scope are “Global and Local Climate Change: What We Know and Expect”; “Greenhouse Gases and Agriculture”; “Climate Smart Agriculture”; “Looking at Climate Change and Global Food Security”; “Solving the Climate Change Riddle: Reasons for Optimism”; and the list of resources for further reading. The publication is available online at <http://cwi.colostate.edu/newsletters.asp>, or contact the CSU Water Center at 1033 Campus Delivery, Fort Collins, Colo. 80523-1033; phone (970) 491-2695; e-mail: csuwatercenter@gmail.com.

Also Out There...

Brief descriptions of some interesting articles the *Water Central Newsletter* has discovered.

•Two news media items in February 2017 looked back on **tornadoes that struck Virginia on February 24, 2016**.

“Feb. 24, 2016: The day eight tornadoes swept across Virginia,” by K. Burnell Evans, *Richmond Times-Dispatch*, 2/23/17, focused on impacts in the Sussex County town of Waverly, where three people were killed. The article is available online at http://www.richmond.com/weather/she-couldn-t-fall-apart-brother-says-of-woman-who/article_ed707c42-21e7-55d1-b200-38ffbfba185.html; or contact the newspaper at 300 E. Franklin Street, Richmond, VA 23219; (804) 649-6000; e-mail: content@richmond.com.

“One year later—Bravery amid fear: riding out the tornado at Appomattox County High School,” by Ben Cates, *Lynchburg News & Advance*, 2/18/17, gave accounts from several staff and students at Appomattox County High School, in Appomattox, Va., who experienced a tornado that touched down about five miles from the school. The article is available online at http://www.newsadvance.com/news/local/bravery-amid-fear-riding-out-the-tornado-at-appomattox-county/article_775b0982-f659-11e6-8ae4-1b8051f5893e.html, or contact the newspaper at 101 Wyndale Drive, Lynchburg, VA 24501; (434) 385-5400 or (800) 275-8830.

•“In Caroline County, a fight to save the pitcher plant, a ‘keystone species,’” by J. Steven Moore, *Fredericksburg Free Lance-Star*, 1/3/17. This article described the work of the volunteer-run Meadowview Biological Research Station in Caroline County, Va., to restore native pitcher plants to their historic range in Virginia and Maryland. Pitcher plants are carnivorous flowering plants found in bogs, a particular type of wetland. They are considered a “keystone species” because they typically are found only in areas of good water quality. Approximately 100 species of pitcher plants exist worldwide, with 11 species known in the United States. The article is available online at http://www.fredericksburg.com/news/environment/in-caroline-county-a-fight-to-save-the-pitcher-plant/article_1c376550-5692-5f66-aaec-7fef35f5f679.html (as of 1/11/17), or contact the newspaper at 1340 Central Park Blvd, Suite 100, Fredericksburg, VA 22401; phone: (540) 374-5000; e-mail: newsroom@fredericksburg.com. More information about two species of pitcher plants in Virginia is available from the Digital Atlas of the Virginia Flora, online at <http://vaplantatlas.org/>.

AT THE WATER CENTER

Mid-Atlantic Water Resources Conference in October 2017

On October 12-13, 2017, at the National Conservation Training Center in Shepherdstown, West Virginia, the West Virginia Water Research Institute (WVWRI) will host the 2017 Mid-Atlantic Regional Water Conference. The conference is a collaborative effort of Delaware Water Resources Center (at the University of Delaware), the Pennsylvania Water Resources Research Center (at Penn State), the Virginia Water Resources Research Center (at Virginia Tech), and WVWRI (at West Virginia Institute).

For questions or more information about the conference, visit <http://midatlanticwrc.org/>, or contact Andrew Stacy, phone (304) 293-7085; e-mail: astacy@mail.wvu.edu.

Student Competitive Grant Winners for 2017-18

Under the **Competitive Grants Program**, the Water Center awards grants of up to \$5000 to support research by students at Virginia colleges or universities. This year's grants, which are for the period June 1, 2017, to May 31, 2018, were awarded to following students and projects:

Stephanie Houston, Ph.D. student, Department of Biological Systems Engineering, Virginia Tech; project title: "A renewable filtration system for the removal and reuse of pollutants from retention ponds."

Mary Lofton, Ph.D. student, Department of Biological Sciences, Virginia Tech; project title: "Simulating storms to predict phytoplankton community responses to future climate change: a whole-ecosystem mixing experiment."

Brendan Player, M.S. student, Department of Environmental Science, Christopher Newport University; project title: "Nutrient uptake in degraded and restored sections of urban streams across project age gradients."

The application period for competitive grants typically runs from February to March or April. More information about this grant program is available online at <http://www.vwrrc.vt.edu/grant-opportunities/competitive-grants/>.

William R. Walker Graduate Research Fellow Award for 2017-18

Established to honor the late William Walker, the founding director of the Virginia Water Resources Research Center, this award has been given since 1999 to recognize and support graduate students in water resources who are pursuing work in a field different from their undergraduate study, or who have returned to school following a period of professional work.

The Walker Award winner for 2017-18 is Jacob Diamond, Ph.D. student, Department of Forest Resources and Environmental Conservation, Virginia Tech.

The application period for the Walker Award typically runs from March to May. More information about this program is available online at <http://www.vwrrc.vt.edu/walker-award/>.

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Please send any comments about this newsletter to Alan Raflo, araflo@vt.edu; or to the Water Center Postal Service address listed in the box below.

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Thank you for your interest in the waters of the Commonwealth of Virginia.