VDH Releases Rainwater Harvesting Guidelines

For over a decade, the Thomas Jefferson Soil and Water Conservation District has been promoting and offering technical assistance for rainwater harvesting systems. These systems range from simple rain barrels to more complex systems that provide potable water to single family residences. Unfortunately, no guidelines existed through the Virginia Department of Health (VDH) for the installation of such systems, and homeowners were left to use their own judgment regarding the adequacy of system components. The development of such guidelines had been a requirement for VDH since 1999, through 1998 legislation of the General Assembly.

Since March 2010, staff from the Thomas Jefferson Soil & Water Conservation District, the Rivanna River Basin Commission, and the City of Charlottesville worked with representatives from the Virginia Department of Health (VDH), Department of Environmental Quality (DEQ), Department of Conservation & Recreation (DCR), and Department of Housing & Community Development (DHCD) to craft guidelines that would clarify appropriate uses of, and technical issues related to, harvested rainwater in Virginia.

In March 2011, VDH published “Virginia Rainwater Harvesting & Use Guidelines”. These published Guidelines are a start, but unfortunately, fall far short of providing practical technical guidelines for designers, engineers, homeowners or local reviewers to propose or approve rainwater harvesting systems. The new Virginia Stormwater Management Regulations encourage the “year round indoor use” of harvested rainwater, and EPA’s recent Stormwater Guidance strives to reduce the volume of stormwater discharges through practices that specifically include rainwater harvesting.

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Hardware River Project Update

The TJSWCD is actively recruiting participants who would like to implement conservation practices within the Hardware River Watershed from fencing streams to repairing failing septic systems.

The Hardware River Project is much more flexible than State or Federal programs, offering flexible buffer widths and does not require fencing of all bodies of water in each field. It also features the potential for higher cost share percentages. The Hardware River Watershed includes much of the southern half of Albemarle County and much of the western corner of Fluvanna. More information can be found at www.tjswcd.org/HardwareRiverProject.html.

If you would like to receive cost share to install an alternative watering system and fence your livestock out of the Hardware and its tributaries or if you have a septic system in need of repair, now is the time to call the TJSWCD at (434)975-0224. A Conservation Specialist will be glad to speak with you about your options.
New Stormwater Regulations Approved

This past May, the Virginia Soil and Water Conservation Board (SWCB) approved Virginia’s proposed statewide stormwater management regulations. The regulations, now nearing the end of the administrative review process, are awaiting the signature of the Governor. By law, the effective date of the new regulations is Oct. 5, 2011 (280 days after the establishment by the EPA of a Chesapeake Bay-wide Total Maximum Daily Load (TMDL). However, the implementation date will coincide with the issuance of the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Construction Activities (July 1, 2014).

The regulations include both stormwater quantity and stormwater quality criteria. The new quantity criteria are not expected to greatly increase the size of stormwater facilities (The 10-year flood protection requirement was not changed). The proposed quality control requirements are more stringent than current requirements and will require additional pollutant removal efforts.

Overall, these regulations address stormwater discharges from construction activities through post-development technical requirements, minimum criteria for local stormwater management programs (administered by localities or by the Department of Conservation and Recreation [DCR]), authorization procedures for local programs, and review procedures for local programs.

While a summary of these regulations is beyond the scope of a newsletter article, some general changes since the previously proposed version (approved by the SWCB in 2009) include:

- Changes to the “grandfathering” provisions.
- An increase in the target phosphorous loading to a scientifically defensible .41 lbs./acre/year.
- Changes in criteria for redevelopment.
- A provision stating that compliance with the channel protection criteria shall be deemed to satisfy the requirements of Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations.
- A water quality design standard that equates to an impervious cover of ten percent.

The regulations spell out minimum criteria for local stormwater programs including administration, plan review, inspection, enforcement, reporting, and record-keeping. Localities that are not within the scope of “MS4” permits will have a choice of whether to administer the local stormwater program themselves or allow DCR to administer it. Within the TJSWCD, Albemarle County and the City of Charlottesville are MS4 localities and will be required to administer their local programs; Louisa, Fluvanna, and Nelson Counties will have the option.

Although the benefits of locally administering the program are numerous, small localities may find it difficult to provide technically qualified staff for such a program. An opportunity exists for the smaller localities to locally administer programs cooperatively, with the technical support of the TJSWCD.

The full text of the proposed Regulations can be found at http://townhall.virginia.gov/L/ViewXML.cfm?textid=5572. As the effective date for these Regulations nears, the TJSWCD is available to answer questions from developers and provide technical support to our localities.

Rain Barrel Workshop Update

The TJSWCD is currently conducting rain barrel workshops for 2011. The workshops in Charlottesville (April 9), Fluvanna County (May 7), and Nelson County (July 23) were a great success. Thanks to all who participated. The workshops in Albemarle County and Louisa County have not yet been scheduled. If you would like to have your name added to a list to receive information on upcoming workshops, please contact Nicola McGoff at 434-975-0244 or nicola.mcgoff@vaswcd.org. More information on our rain barrel program and rainwater harvesting can be found online at: tjswcd.org/RainwaterHarvesting.html
TJSWCD Director Elections in November

Are you interested in natural resource management? Would you like to have an impact on programs available to address natural resource issues in your community? Would you like to learn more about natural resource management in your community?

If you answered “yes” to any of the questions above, AND your schedule will allow you to devote 6-12 hours/month to District activities, then now is the time to begin thinking about running for Soil and Water District Director. During the 2011 general election (November 8), two directors from each of our four counties and the City of Charlottesville will be elected. Directors serve without compensation, but are reimbursed for expenses.

Soil and Water Conservation Districts (SWCDs) are authorized under Title 10.1, Chapter 5 of the Code of Virginia and are defined as political subdivisions of the Commonwealth. Directors of SWCDs develop strategies and programs to address local natural resource needs, and serve as a focal point for the coordination of federal, state and local natural resource programs. Some recent areas of focus for the TJSWCD have been stormwater runoff from development areas, erosion and sediment control on construction sites, water quality issues related to agriculture, the protection of riparian areas through forested buffers and riparian easements, and water conservation practices such as rainwater harvesting from rooftops. Directors serve four-year terms.

If you are interested in becoming a candidate, you must complete and file required forms with your local registrar by 7 p.m. on August 23, 2011. All candidates must be residents of Virginia for one year and must be registered to vote in the locality in which they are running. For more information about the programs of the TJSWCD and director responsibilities, visit our website at tjswcd.org, or call our office at 434-975-0224. For more information about deadlines and to get the necessary forms required, contact your local registrar: Albemarle: 434-972-4173; Charlottesville: 434-970-3250; Fluvanna: 434-589-3593; Louisa: 540-967-3427; Nelson: 434-263-4068. Remember, you must allow sufficient time to acquire a minimum of 25 signatures from registered voters in your locality for your petition.

New Faces at TJSWCD

There are two new staff members and two new associate directors at the Thomas Jefferson Soil and Water Conservation District. Taylor Pippins (pictured left) was hired in November of 2010 as the new Conservation Technician. He recently graduated from the University of Florida with a Bachelor of Science Degree from the college of Agricultural and Biological Engineering in the Agricultural Operations Management program. Taylor worked on a cattle farm outside of his campus during college. He has family ties, and spent his college summers working on farms, in and around Albemarle County. After graduation, he worked full time installing agricultural watering systems and fencing. He is now busily promoting the cost share program and agricultural BMPs within the District full time.

The newest addition is Nicola McGoff (pictured right), hired in July 2011. She serves as the part time Outreach and Education Coordinator for the District. In this capacity she will maintain the website, publish the newsletter, and conduct workshops, farm field days, and all other educational programs as they arise. She has a Master of Science in Environmental Sciences from University of Virginia (2004), and has recently worked for the Rivanna River Basin Commission (RRBC) and the Virginia Aquatic Resources Trust Fund (VARTF) at The Nature Conservancy. With these additions to the District staff, the team is ready and excited for the upcoming work of 2011/2012.

In November 2010 Irvin White, an Albemarle County farmer was appointed as a new Associate Director for the TJSWCD Board. Charlotte Rae, active in many local natural resource programs, was appointed as a new Associate Director from Nelson County in December 2010.
VDH Releases Rainwater Harvesting Guidelines (Continued from Page 1)

The TJSWCD believes that the use of harvested rainwater is a vital tool in reducing stormwater runoff volume and reducing demand on traditional surface and groundwater supplies.

An additional constraint to widespread use of rainwater harvesting is the Virginia Uniform Statewide Building Code (USBC) which includes limitations on storage time for harvested rainwater (*erroneously equated with graywater in the USBC*), further limiting the ability of innovative builders to install such systems as a stormwater management tool (Commonwealth of Virginia 2009 Residential Code, Appendix O and Section R328, Gray Water and Rain Water Recycling Systems).

Industry professionals or individuals who are interested in incorporating rainwater harvesting in projects should encourage VDH to provide more comprehensive technical guidance and the Virginia Department of Housing and Community Development to revise Virginia’s USBC to make it more compatible with encouraging the use of harvested rainwater. NOTE: The VDH Rainwater Harvesting Guidelines can be downloaded from the VDH website (under “Technical Resources” of the Onsite Sewage and Water page).

H.H. Bennett Ceremony

On July 15, 2011, USDA NRCS commemorated Hugh Hammond Bennett’s pioneering soil survey and conservation in Louisa County in 1905 and the once-over mapping of Virginia soils completed last year. A historical marker now stands on the grounds of the Louisa Arts Center recognizing Bennett’s contribution to soil science.

Bennett is known as the father of soil conservation. He began his career as a soil surveyor for the USDA in 1903. In 1905 he began working in Louisa County, where he formulated the link between soil erosion and degradation. He characterized the Louisa County survey as an epiphany about soil erosion processes and referred to that study throughout his career as he campaigned nationally for soil conservation. In 1935 Congress created the Soil Conservation Service (renamed the Natural Resources Conservation Service in 1994) and named Bennett as its first chief.

The ceremony also marks the completion of the initial mapping of Virginia soils. The USDA NRCS provides leadership for mapping of every acre of U.S. soil through the National Cooperative Soil Survey. This data has proved critical for making land use decisions. This soils information can be easily accessed online at websoilsurvey.nrcs.usda.gov. This is the largest natural resource information system in the world.

USDA NRCS Chief Dave White was the keynote speaker for the dedication ceremony. The ceremony was attended by over 100 participants. Other speakers were James S. Artz, Mayor, Town of Louisa; Dr. Jack Manzari, President, Louisa County Historical Society; Douglas Helms, National Historian, USDA NRCS; Charles Rosson, Extension Agent, Louisa County Cooperative Extension Service; Paul Benedict, National Soil Program Manager, NRCS Soil Survey Division; and Robert A. Carter, Director, Virginia Department of Historic Resources’ Community Services Division.

“We have been too wasteful too long in this country—indeed, over most of the world. We had so much good land in the beginning we thought the supply was limitless and inexhaustible.” (H.H. Bennett)
District Helps Albemarle County Meet Stormwater Permit Requirements

The Thomas Jefferson SWCD has been helping the County of Albemarle fulfill its federal stormwater permit obligations since 2003. Urban Conservation Specialist, Martin Johnson, works with the county’s Water Resources Division to map stormwater outflows into county streams and monitor them for possible illegal discharge of pollutants.

As part of the county’s permit requirements, there has also been an effort to inventory every stormwater management facility (SMF) located on private and public property. Such SMFs consist of structures as large as a stormwater retention basin which looks like a boating and fishing lake, or as small as a grassy swale, a shallow grass-covered channel leading downhill to a stormwater drain. Nearly 700 of these structures have been inventoried to date, and the county expects the number to continue growing as construction picks up and urban density increases.

Maintenance of SMFs on private property is in most cases the responsibility of the owner of the land. Maintenance can range from mowing the grass on a dam or collecting litter, to making sure that embankments and slopes are stable and erosion-free. A maintenance agreement is issued with the original construction permit and passed along with the land when it is sold, and it requires that the owner or owners (if more than one property is involved) take responsibility for the maintenance of the SMF. In subdivisions with large SMFs such as a retention basin, the homeowner’s association takes responsibility for maintenance oversight and SMF repair.

The Water Resources Division inspects all publicly and privately-owned facilities to make sure they function as designed. The first inspection of a facility provides an opportunity to educate a landowner about what kind of SMF they own, what its purpose is, how it functions and what steps can be taken to keep it well-maintained. When well-maintained, an SMF will last decades - if allowed to fall into disrepair, it can be very expensive to repair or even replace the facility. If an inspection finds issues that require attention, such as erosion, the inspector issues a letter indicating the steps that need to be taken to repair any deficiencies that have been found. A subsequent inspection will confirm the efficacy of improvement or suggest the need for further steps that need to be taken.

The Thomas Jefferson SWCD has been invited to assist in the process of inspecting privately-owned SMFs in the county and to provide technical assistance to citizens who are responsible for the maintenance of these facilities. For more information on privately owned stormwater management facilities and their maintenance, please visit www.rivanna-stormwater.org and click on “Stormwater Facility Maintenance.”

Partner Agency Reports

Changes at the Rivanna River Basin Commission

After sharing office space for two and half years with the TJSWCD at 706 Forest Street, the Rivanna River Basin Commission has moved to new office space on W. Main Street in Charlottesville. This move became necessary when RRBC staff started to outgrow its space, which was just about the same time that TJSWCD needed to reclaim the room for its own needs. RRBC is fortunate to have had the benefit of the camaraderie and collegial support of the TJSWCD staff during this time and sends it thanks and appreciation to TJSWCD for sharing its space during its early years.

In June, Jessica Bayliss Brown joined RRBC as Program Development Coordinator. Among other projects, Jessica is working with Scott Kaiser, UVa graduate student and summer intern, to research existing conditions of the Rivanna watershed. This project will help the commission develop a “snapshot” or “report card” to describe the health of the ecological systems and the current protection of these systems through conservation and local policies. The Rivanna River report card will be completed by late fall -- and will launch the Commission’s watershed-planning activities over the next year and half.

You can find the Rivanna River Basin Commission in the Starr Hill Building at 801 W. Main Street, Suite 202, Charlottesville, 22903. If you wish to receive updates on the Commission’s work, you can sign up at http://www.rivannariverbasin.org/ or call us at (434) 971-7722.
**Upcoming Events**

**TJSWCD Director Elections**

If you are interested in becoming a candidate, you must complete and file required forms with your local registrar by 7 p.m. on August 23, 2011. All candidates must be residents of Virginia for one year and must be registered to vote in the locality in which they are running. For more information about the programs of the TJSWCD and director responsibilities, visit our website at [tjswcd.org](http://tjswcd.org), or call our office at 434-975-0224.

**Real Forestry for Real Estate**

The TJSWCD is assisting Virginia Tech in hosting the “Real Forestry for Real Estate” training on August 11, 2011 in Charlottesville, Virginia. To obtain a brochure and registration form, please contact Alyson Sappington at the Thomas Jefferson Soil & Water Conservation District, [alyson.sappington@vaswcd.org](mailto:alyson.sappington@vaswcd.org) or 434-975-0224. To see additional course information, register on-line, and pay by credit card please go to [www.cnre.vt.edu/forestupdate](http://www.cnre.vt.edu/forestupdate). Click on Events Calendar and see August listings. For more specific course information or questions, contact Jennifer Gagnon at Virginia Tech at [jgagnon@vt.edu](mailto:jgagnon@vt.edu) or 540-231-6391.

**Nelson County Field Day**

There will be a farm field day during August in Nelson County. The date and location have not yet been finalized. For more information please contact Nicola McGoff at 434-975-0244 or [nicola.mcgoff@vaswcd.org](mailto:nicola.mcgoff@vaswcd.org), and check the website for updates: [www.tjswcd.org](http://www.tjswcd.org).