

Source Water Protection News ...

Land Use and Drinking Water Costs

For hundreds of years, Mother Nature provided us with a natural "green-frastructure," in the form of forests and wetlands that protected streams, rivers, and groundwater resources. This "green-frastructure" acted as a natural filter, trapping and filtering out most contaminants and impurities, slowing down stormwater runoff, and helping to infiltrate the water back into the soil, protecting both the quality and quantity of drinking water sources.

With new development much of the natural protection of "green-frastructure" has been removed. Development increases demand for drinking water, and simultaneously generates nonpoint source pollution that contaminates water supplies. Water suppliers have to invest in treatment upgrades to maintain compliance with regulations. Many of these treatment costs can be prevented with greater source protection.

As we are coming to understand, land use decisions carry a price tag that includes water treatment costs. The recent study by The American Water Works Association (AWWA) and Trust for Public Land, "*Protecting The Source: Land Conservation and the Future of America's Drinking Water*," (available online at www.tpl.org) researched the correlation between forest cover and treatment costs for 27 U.S. public water suppliers. According to the study (page 21):

For every 10 percent increase in forest cover in source areas, treatment costs *decreased* approximately 20 percent, up to approximately 60 percent forest cover.

About 50-55 percent of variation in treatment costs can be explained by the percent of forest cover in the source area.

Many communities are realizing that while land conservation may be expensive, it reduces the long term costs of water contamination and treatment.

Source: *Protecting the Source: Land Conservation and the Future of America's Drinking Water*.

GROUNDWATER AND PUBLIC HEALTH

MAKING THE CONNECTION

Keynote speaker at the recent Groundwater Foundation Conference, Dr. Jeffrey Griffiths, M.D., sounded an alarm in his talk "Groundwater and Public Health: Current Status and Future Challenges." Dr. Griffiths pointed out that the water world and the public health world need to come together and share information. Health risks in drinking water are increasing, not declining, but we are not equipped to assess them from a public health surveillance standpoint. State public health systems have the responsibility to investigate waterborne disease outbreaks, but they are stretched thin; the Center for Disease Control backs up the states, however its budget has been cut. We do not know enough about emerging diseases - such as SARS - and contaminants - such as hormones and pharmaceuticals that are showing up in water.

Dr. Griffiths offered solutions that

focused on prevention. In a 1996 study, the American Academy of Microbiology pointed out that one of the best tools for reducing incidence of waterborne disease is establishment of watershed protection programs. The statement holds true today.

Both Dr. Griffiths and EPA pointed out the "multi-barrier" approach of the Safe Drinking Water Act provides more effective protection - including prevention, drinking water treatment to national standards, care of the distribution systems and information for the public. Other speakers advocated that water suppliers and Public Health organizations establish connections and a Key Person Contact list and conduct joint training exercises, especially because early warning is so vital in event of any kind of contamination event.

(for more information on making the connection see "Tap Into Prevention," an EPA video, listed on page 3)

GRANTS, GRANTS, GRANTS ...

The **WREN** grant cycle is now open. Look for the application and guidelines on the WREN website: <http://pa.lww.org/wren>. Application deadline is April 1.

The **Growing Greener** grant cycle is also open. Deadline is March 4. Guidelines and application are on the DEP website at: www.dep.state.pa.us/growgreen

PA Dept of Conservation and Natural Resources has a supplemental application cycle for acquisition and planning projects, deadline is April 13. Details at www.dcnr.state.pa.us

The **National Fish and Wildlife Foundation** has a number of grants programs. Of particular interest to PA are the Chesapeake Bay Small Watersheds Grants Program, deadline February 4, and the Five Star Restoration Matching Grants Program, deadline March 1. Details at www.nfwf.org

The **Clean Water Fund** has mini-grants (up to \$2,000) available for source water protection activities through its Community Source Water Protection Initiative. Details at www.protectsourcewater.org or contact Lynn Thorp with Clean Water Fund at lthorp@cleanwater.org

COOPERATION IN BERKS COUNTY YIELDS SAVINGS AND RESULTS

Of the 74 municipalities in Berks County, 45 are required to meet EPA's Phase II requirements — they are MS4 communities. MS4 stands for Municipal Separate Storm Sewer Systems, and about 1000 communities in Pennsylvania are designated MS4 communities due to their population

SOURCE WATER PROTECTION EDUCATIONAL AWARD

The Schuylkill Action Network is looking for a few good school projects for their Educational Sector Award. All schools, colleges and universities in the Schuylkill River Watershed are eligible for nomination. Awards will be presented May 3, during National Drinking Water Week at a location to be announced.

Is your school using native plants, less fertilizer and pesticides, and/or creative stormwater practices in its property management? Does your curriculum include information on protecting drinking water sources or taking care of private wells? Contact Andrea Bennett, bennett.andrea@epa.gov for information on how to nominate your school. For more information on the Schuylkill Action Network, visit www.schuylkillactionnetwork.org

Coming in April and May

Source Water Protection Workshops

**April 6 - Greensburg
(Univ. of Pittsburgh)**

(other locations to be announced)

for more information contact

**Julie Kollar
267-468-0555**

**Juliek@voicenet.com
or visit**

www.drinkingwaterwise.org

and proximity to an “urbanized area.” In addition, the county itself and the Reading Airport must meet Phase II requirements.

Under the guidance of the County engineer, Spotts, Stevens and McCoy, Inc., with the support of the County Commissioners, the Planning Commission and the Conservation District, 45 of those 47 entities decided to work together to meet the EPA requirements. They formed the Berks County Stormwater Task Force to develop a joint program and to submit permit applications for all participants to EPA as one package.

The MS4 program requires six “minimum control measures” to be in each permit; the permits for all the Berks County MS4 communities contain the same measures, thus there is no confusion between municipalities over what the requirements are. Municipal engineers were supportive of the approach and the development community has not raised concerns.

Public education and outreach is one of the six minimum measures. With the help of the Planning Commission and Conservation District,

joint education programs can be planned that reach across municipal lines. One such program was a workshop for municipal employees (pollution prevention and good housekeeping at municipal facilities is another of the required measures). Shannon Rossman, from the Planning Commission worked with the Berks County Public Works Association to organize the training that provided each employee information on pollution prevention as well as permit requirements for roadwork.

Cost estimates for a go-it-alone approach per municipality came in at \$39,800 to prepare and implement an MS4 program. Costs for the cooperative program are estimated to be \$16,500 per municipality – a considerable savings. And even more importantly, a uniform program has more chance of success in protecting water resources from polluted run-off.

For more information on the Berks County approach, contact Shannon Rossman at the Planning Commission, Srossman@countyofBerks.com or Dale Kratzer at Spotts, Stevens and McCoy, dale.kratzer@ssmgroup.com

PAXTON CREEK - CWP PARTNERSHIP

The Paxton Creek Watershed and Education Association, located in Harrisburg, in partnership with the Center for Watershed Protection (CWP), has conducted stream and subwatershed assessments in the Paxton Creek North subwatershed, one of the lesser-developed subwatersheds in the Paxton Creek Watershed. The assessment results, combined with stakeholder input and a review of monitoring data, led to the development of the Paxton Creek North Subwatershed Restoration Plan.

Part of this project involved the creation of an educational brochure and slideshows that were targeted to specific groups — homeowners, business owners, developers and local

governments. The material focuses on how each group can take steps to protect their watershed. Although the educational materials are geared toward those living in the Paxton Creek watershed, they are applicable for watershed protection in general, and make a real effort to translate technical and complex ideas to the general public.

More information about this project, as well as downloadable versions of the restoration plan and educational materials are available online at: http://www.cwp.org/Community_Watersheds/Paxton/paxtoncreek.htm

(From "Runoff Rundown", e-newsletter of the Center for Watershed Protection)

Resources ...

REGIONAL COOPERATION FOR WATER QUALITY IMPROVEMENT IN SOUTHWESTERN PENNSYLVANIA

(National Academy of Science, National Research Council, 2005, 284 pp) A comprehensive, watershed-based approach is needed to effectively address water quality problems in southwestern Pennsylvania. This report suggests ways to better unify and coordinate the region's efforts. Available at: http://books.nap.edu/catalog/11196.html?onpi_newsdoc01062005

NORTH AMERICAN POWER PLANT EMISSIONS

(North American Commission for Environmental Cooperation, 2005, 93 pp) presents specific air pollutant information from 2002 for individual fossil fuel-fired power plants across North America. PA is reported as the leading polluter in North America. Available at: <http://www.cec.org/>

HEALTH IMPLICATIONS OF PERCHLORATE INGESTION

(National Academy of Science, National Research Council, 2005, 191 pp) reports that perchlorate, an unregulated toxin that has been found in drinking water in 35 states, is far less dangerous than was previously thought. Available at: <http://books.nap.edu/catalog/11202.html>

EMERGING ISSUES IN WATER AND INFECTIOUS DISEASE

(World Health Organization, 2003, 22 pp) newly-recognized pathogens are being discovered that present challenges to the water and public health sectors. This publication seeks to raise awareness of emerging issues and provide sources of more information. Available at http://www.who.int/water_sanitation_health/emerging/en/emerging.pdf

REPORT TO CONGRESS ON THE IMPACTS AND CONTROL OF COMBINED SEWER OVERFLOWS AND SANITARY SEWER OVERFLOWS

(US EPA, EPA 833-R-04-001, 2004) reports on numbers and volumes of discharges, environmental and health impacts, and financial needs to correct the problems. Available at: http://cfpub.epa.gov/npdes/cso/cpolicy_report2004.cfm

ESTABLISHMENT OF RIPARIAN AND SHORELINE BUFFERS AND THE TAXATION OF PROPERTY INCLUDED IN BUFFERS

Rhode Island Rivers Council, 2005, 12 pp) Recommendations for state programs to improve riparian buffer protection. Available at: <http://www.ci.uri.edu/RIBayTeam/Resources.htm>.

WEATHERING THE STORM; CONTROLLING STORM WATER POLLUTION IN THE GREAT LAKES STATES

(Environmental Integrity Project, 2004, 24 pp) offers suggestions for improving programs to control polluted runoff. Available at: http://www.environmentalintegrity.org/pubs/Weathering_the_Storm.pdf

WATER QUALITY IN THE NATION'S STREAMS AND AQUIFERS - OVERVIEW OF SELECTED FINDINGS 1991-2001

(US Geological Survey, Circular 1265, 2004, 20 pp) - reports on a 10-year study of 51 river basins and aquifers, with highlights from the individual reports. River basin reports in PA include: Delaware River Basin - Circular 1227; Lower Susquehanna - Circular 1168; Allegheny and Monogahela - Circular 1202. Circular 1265, and links to the other reports are available at <http://water.usgs.gov/pubs/circ/2004/1265>

WATER QUALITY TRADING ASSESSMENT HANDBOOK - Can Water Quality Trading Advance Your Watershed Goals? (US EPA, EPA 841-B-04-001, 2004, 109 pp) provides examples of water quality trading and discusses when it will work. Available from NSCEP, 1-800-490-9198, www.epa.gov/ncep/ihom or at: <http://www.epa.gov/owow/watershed/trading/handbook/docs/national-wqt-handbook-2004.pdf>

URBAN SUBWATERSHED RESTORATION MANUAL SERIES

(Center for Watershed Protection, 2005) Manual #4: Urban Stream Repair Practices is available for free download for a limited time. This stream repair manual concentrates on practices used to enhance the appearance, stability, structure, or function of urban streams. The hard copy will be available for purchase very shortly. Download the PDF version of USRM #4 at www.cwp.org

VIDEO RESOURCES AVAILABLE FROM WREN RESOURCE CENTER

TAP INTO PREVENTION: DRINKING WATER INFORMATION FOR HEALTH CARE PROVIDERS (EPA, 62 minutes, VHS tape) an excellent source of current information about links between public health and water quality, highlights the vital role health care providers play in recognizing early outbreak of waterborne disease and the need to ask more questions about water sources (including private wells) when dealing with patients, especially vulnerable populations. Call the WREN Resource Center, 1-800-692-7281 to borrow, or order from EPA, details at www.epa.gov/safewater/healthcare/index.html

MANAGING OUR WATER RESOURCES - STORMWATER BEST MANAGEMENT PRACTICES

(Perkiomen Watershed Conservancy, DVD) shows examples of pervious pavement, naturalized basins and other stormwater practices, in use, in PA. Call 1-800-692-7281 to borrow.

Conferences ...

February 1 Reading, PA
2005 Source Water Protection Workshop at Albright College in Reading from 7pm - 9:30pm. Info at: www.drinkingwaterwise.org

February 3-5 State College, PA
Farming for the Future PA Association for Sustainable Agriculture Annual Conference
For info call 814-349-9856 or visit <http://www.pasafarming.org>

March 5-6 Pottstown, PA
2005 Schuylkill Watershed Congress
Montgomery County Community College - West Campus
For info: chari@delawariverkeeper.org

March 29-April 1 State College, PA
PRWA 2005 Annual Conference
Source Water Protection tour on Mar 31
Visit: www.prwa.org or call 800-653-PRWA

April 2 Chadds Ford, PA
Brandywine River Museum
A Legal Toolbox for Watershed Groups
Second Annual Workshop sponsored by PennFuture. For info: Matt Royer, 717-214-7928 or royer@pennfuture.org or visit www.pennfuture.org

April 8 Pittsburgh
2005 Health and the Environment Conference
Sponsored by CHE-Penn (Collaborative on Health and the Environment in PA)
For info: <http://home.comcast.net/~che-penn/regional.html>

April 8-9 Lancaster County
PA Land Conservation Conference
Sponsored by PA Land Trust Association.
For info: aloza@epix.net

May 3-5 King of Prussia, PA
American Water Works Association-PA Section 57th Annual Conference
Visit: <http://www.paawwa.org/AnnualConference.shtml>

May 10-11 Wilmington, DE
Linking Science and Management for the Delaware Estuary
Delaware Estuary Science Conference, Part II Sponsored by the Partnership for the Delaware Estuary
Visit: www.Delawareestuary.org

May 12 Allentown, PA
Hydromania - 5th Annual water-awareness festival for 3rd and 4th graders in the Lehigh Valley, sponsored by the Lehigh Valley Water Suppliers.
For info: lieselsmull@lehighcountyauthority.org

June 8-10 Harrisburg, PA
A Susquehanna Symposium: Riverfront Communities - Flowing With Potential Sponsored by the Susquehanna River Basin Commission and others.
For info: Susan Obleski, 717-238-0423, email sobleski@srbc.net

July 19-22 Williamsburg, VA
Managing Watersheds for Human and Natural Impacts: Engineering, Ecological, and Economic Challenges American Society of Civil Engineers (ASCE) Watershed Management Conference. For info: <http://www.asce.org/conferences/watershedmanagement2005/>

June 9-10, 2005
Allenberry, PA

WREN Orientation and Wrap-up Meeting

For info:
sherehess@yourinter.net

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The WREN project provides funding for local groups engaged in water education projects and communications links between groups and individuals interested in improving local policy making for water resource protection. Local and statewide activities that focus on water resource education will be highlighted in each issue of **Water Policy News**.

Articles about water education activities are solicited from the readers of Water Policy News. Send newsletter items to Editor: Edith Stevens, RR 1, Box 1550, Cresco, PA 18326, estevens@ptd.net.

To receive this free newsletter or inquire about the resources available from the WREN Project, visit <http://pa.lwv.org/wren> or call the LWVPA at 1-800-692-7281 or write them at 226 Forster St., Harrisburg, PA 17102. Please send address changes to lwvpa@epix.net.

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