



Stabilizing “wooded” lots – When seed and mulch fall short

Wooded lots, situated at the highest elevation in a development, often command lot premiums 20% to 40% higher than lots situated in former crop fields and pasture land. New homebuyers are often disappointed when they learn that their “dream lot” cannot bear the coveted, lush- green lawn Ashton Ritchie speaks of in his Scotts fertilizer sales pitch. The frustration is shared by the homebuilders and developers as well; after-all they must respond to the Earth Disturbance Reports which read “ Failure to stabilize lot X, Y & Z” after they seeded the lots just weeks ago.

The fact is that most wooded lots, when cleared and grubbed for home construction, are left with an inherently poor substrate to establish the cool-season grass lawn specified on the plan. What little native topsoil that was present leaves the site in two ways; by the removal of tree bio-mass (stumps and roots), and accelerated erosion caused by the first rains.

Over the past year, Chester County Conservation District has taken an aggressive, proactive approach to preclude stabilization problems inherent to wooded- lot house construction. CCCD has found that the plan review process is the place to start. By analyzing existing conditions and lot placement, the plan reviewer can quickly get a feel for the lot’s ability to establish grass. If the site is clearly deficient in topsoil, CCCD has been suggesting that a lawn establishment detail be added to the plan details. The detail very simply depicts a 6-inch layer of topsoil fortified with aged mushroom compost on top of the subsoil. A layer of seed and straw mulch is also shown .

Amending poor soil is not the same as mulching. A mulch is left on the surface and its purpose is reduce evaporation and runoff, while incubating grass seed. Aged compost soil amendments increase the soil’s organic matter and offer many benefits. Organic matter improves soil aeration, water infiltration, and both water and nutrient holding capacity, all of which are essential to achieving successful stabilization.

Now is the time to examine your soils, as the fall cool-season grass germination period is approaching (August 15th to October 15th) . Remember, a quality stand of cool-season grass is only as good as the soil substrate beneath it.

*James Subach
Chester County Conservation District*



Safety is always an issue when you are on a earth disturbance site. A hard hat and steel toe boots can only do so much. You need to keep your wits about you and stay alert.

A reminder about culverts

As part of the minor road crossing requirements, culverts should be installed with the invert 6 inches below the natural streambed. There are many culverts being built that are obstructing flows because they are at higher elevations than the stream bed. Please be mindful when surveying or installing culverts to include this measure.

Jeanette Jansen, Montgomery County CD

District Manager named to state oversight committee

Dan Greig, veteran Chester County Conservation District manager, is one of 25 Pennsylvanians named to the state Department of Environmental Resources' new oversight committee that will guide the creation of the state's Best Management Practices Manual.



In appointing the committee, Kathleen McGinty, DEP secretary, stressed that the department will provide a "safe harbor" for individuals and agencies that use best management practices and procedures identified on the DEP stormwater web site for the next 18 months—the expected time frame for completion of the document.

Also named to the committee were Theresa Bentley, stormwater specialist with the Bucks County Planning Commission, Robert Traver of Villanova University, Maya vanRossum, Delaware Riverkeeper, and Frank Brown, a regional environmental consultant.

The manual, which is being developed by Cahill Associates Inc., a West Chester environmental consulting firm, will support the implementation of federal and state water quality programs, emphasizing innovative best management practices that encourage on-site stormwater management and increased groundwater infiltration as a means to minimize stormwater discharges and limit the amount of surface pollution entering streams. The manual also will include guidelines and design criteria specific to the varying regions and landscapes in Pennsylvania.

For more information on best management practices, visit the Pa PowerPort at www.state.pa.us. Keyword: DEP Water Management.



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Update on NPDES permitting

Phase II of the NPDES permitting process became effective on December 8, 2002.

When checking for completeness and acceptability, items omitted from the application tend to be the information that is needed to complete the administration process of the application. If the items on the application are incomplete, this will generate a request for additional information letter. The application cannot be processed until the additional information is received.

Items that are commonly incomplete include: a) the information on the Notice of Intent (NOI) is not consistent with the district's application, [example: total acres and disturbed acres are not the same on both documents]. b) the address for the applicant and the site address are incomplete or omitted from the NOI. c) the notarized signature on the NOI is signed off by the engineer and is inconsistent with the district application or page 3 of the NOI.

When submitting the application, you are requested to **separate** your copies, with the original paper work on the top, followed by the copies. If you have any questions regarding the number of copies to submit, please contact your county conservation district.

Also, please be consistent with the project name when submitting applications. Problems often occur when a project is submitted for a revision under a different name.

Please note you can obtain applications from the Montgomery County Conservation District website, www.montgomeryconservation.org.

*Karen Thompson
Montgomery County CD*



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A critical moment for Montgomery County voters

In the November 4th, 2003 election, Montgomery County voters will have the opportunity to voice whether they support funding a new Montgomery County Open Space Program by answering an important county-wide ballot question. The proposed \$150 million program, called *Green Fields – Green Towns*, would be used to preserve open space and farmland, re-green towns and boroughs, and protect natural resources. Studies conducted across Pennsylvania show that controlling development reigns in the costs associated with it, resulting in lower long-term burdens. The previous successful 10-year Montgomery County Open Space Program expires at the end of 2003.

If approved, the initiative promises to provide tremendous value for residents. As of July 7, 2003, Montgomery County's Open Space program of the last ten years has preserved over 9,400 acres of natural areas, parkland and farmland, while also creating 23 miles of trails and providing each municipality with an open space plan. The county's \$60 million in grants used for these programs enabled groups to leverage over \$41 million in funding from sources outside of county funds.

The successes of the program show what can be done, while the county's rapidly changing landscapes underscore the need for continued action. As open land disappears and the pressures on what remains intensify, the call for more conservation and better planning increases. November's ballot question presents a perfect opportunity for Montgomery County voters to show how they feel about securing a green legacy for the future. For more information contact the Montgomery County Lands Trust at 215-513-0100, www.mclt.org, or the Green Futures Action Committee at 215-256-7885.

Lisa Hancock
Montgomery County Lands Trust

Pennsylvania Energy Harvest Grant – Fueling the Future

Governor Ed Rendell and the Department of Environmental Protection have announced a new program titled Pennsylvania Energy Harvest. The Energy Harvest Grants will fund projects that promote awareness and build markets for cleaner or renewable energy technologies. The idea is to explore the many opportunities to better manage our energy resources in a way that also improves our environment, supports economic development and enhances our quality of life.

Eligible proposals include: renewable energy development; biomass energy projects; waste coal reclamation for energy; demonstration or innovative energy efficiency technologies; or distributed generation infrastructure improvements like smart meters. Special consideration will be given to proposals that assist farmers and reclaim waste coal.

DEP is particularly interested in supporting proposals that are market-driven, create jobs, and produce economic development within the Commonwealth. Applicants are encouraged to collaborate with organizations within Pennsylvania in completing their proposal.

This program is funded in part by the U.S. Department of Energy's State Energy Program.

The deadline for the first year of grants is September 19, 2003

For more information, please contact the DEP Grants Center at 717-705-5400 or log onto the DEP web page at www.dep.state.pa.us.

Rich Kadwill
Montgomery County CD

*This information was provided by Kathleen A. McGinty,
Secretary, PA. Department of Environmental Protection*

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Streambank Restoration Projects in Southeast Pennsylvania

Cooks Creek Restoration (Bucks County)

This summer, the Bucks County Chapter of Trout Unlimited was able to complete a streambank restoration project on the Cooks Creek, one of Bucks County's Exceptional Value waterways. The project site is on a farm in Durham Township that has been preserved through Bucks County's Farm Preservation program, making it the perfect choice for restoration work.

The Cooks Creek project was funded through the Growing Greener Program. The original budget for the work was \$83,919. However, Trout Unlimited indicates that it was able to come in under budget due to the generous donations they received throughout the project's two and one half year duration.

The Giles and Ransome Corporation donated earthmoving equipment during the rock vein construction, with a local contractor; Bob Kovitch contributed his time as equipment operator. Nockamixon State Park donated cedar trees, and workhorses owned by Hickory High Tree Service hauled them to the site. Members of Trout Unlimited supplied much needed volunteer labor over the course of the entire project.

The restoration project combined many practices, including regrading of streambanks, the installation of rock veins, fascine plantings, 4 inch caliper willow cutting plantings, and an anchored cedar wall to protect an outside turn in the creek. The project designer, Shandor Szalay of F.X. Browne, combined these techniques to achieve a very natural finished product.

Trout Unlimited hopes to move throughout the Cooks Creek Watershed, completing projects such as this with other landowners. Some 45 letters were distributed to streambank landowners. Trout Unlimited members have been following up on those letters by making site visits to interested landowners in order to assess future projects.

A portion of Bucks County Trout Unlimited's funding was given to Heritage Conservancy in order to secure conservation easements on other sections of the creek. So far, Heritage Conservancy has been able to purchase a conservation easement that connects two properties that already had easements.

*Gretchen Schatschneider
Watershed Specialist, Bucks County CD*



Downstream Area after construction 2002. Note rock vein, 4" caliper willow cuttings, and dogwood fascines.



Downstream area during construction of rock vein.



Downstream area after project completion.

Streambank Restoration Projects in Southeast Pennsylvania

Paxon Hollow Golf Course Streambank Restoration Project (Delaware County)

The Delaware County Conservation District awarded a minigrant to the Chester Ridley and Crum Watersheds Association to restore 160 feet of streambank in Trout Run. The project area is located in the Paxon Hollow Golf Course owned by Marple Township, which also provided matching funds. The stream ultimately empties into the Crum Creek several miles above Philadelphia Suburban Water Company's intake, which also provided financial and technical match.

The project consisted of 160 feet of biologs and coir fiber mats stretched across the graded banks. The biologs were planted with native vegetation; the banks were planted with large fescue grass at the request of the golf course.

Municipal workers, CRC volunteers, golf course employees, Philadelphia Suburban and Conservation District staff worked together to install the project over two days. The site was divided into two 80 foot sections upstream and downstream of a cart path bridge. The upstream side had a gentle slope and a much better vegetation growth rate than the downstream section. The downstream section was constrained by the fairway, which resulted in a steeper slope than had been hoped for. The grass seed and vegetation also did not take as well as the upstream side; possibly do to the angle of the sun.

There have been two bankfull events since the project was installed in May, testing the strength of the project. The upstream section held perfectly, while the downstream section experienced some slumping. The project was originally designed to serve as a demonstration of an alternative to gabion baskets and proved to be successful.

Despite some setbacks, Township and Golf Course officials were impressed with the restoration techniques. Their original fears of an ugly weed filled gully were quelled.

There are plans to regrade the downstream side to a gentler slope, which will result in some fairway loss, but much less than the stream would ultimately destroy. Course officials have expressed interest in restoring the entire stream using the bioengineering or natural channel design techniques, in the future.

Bill Gothier, Watershed Specialist, Delaware County CD



Paxon Creek: Downstream site after bankfull event. Note areas of slumping remain bare, and vegetation in biologs is stunted.



Paxon Creek: Downstream site with matting completed. Fairway is to the left.

Friends of Mingo Creek Basin Planting (Montgomery County)

Several months ago, 13 members of the Friends of Mingo Creek planted 25 native shrubs on the floor of a stormwater detention basin in Upper Providence Township. This half-acre basin is owned by one of the Friends who manages the basin to clean water as it flows downstream.

Working with other stakeholders, the basin owner hopes to eventually get funding to remove the low-flow channels in the basin. In the meantime, the owner has experimented with the outlet structure to increase its potential to clean water, while preserving its designed function.

This planting event followed a public workshop sponsored by the Pennsylvania League of Women Voters at which representatives from the Montgomery County Planning Commission, Pennsylvania Environmental Council, and Natural Lands Trust made presentations.

Nathan Walker, Montgomery County Watershed Specialist



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Bucks teacher garners statewide recognition

Passionate. That's how Pennsbury High School teacher Cindy DeMaria feels about the environment

Like the time she was on a field trip and she spotted a fisherman with a turtle hooked to the end of his fishing line.

In the midst of her outdoor lesson, her class watched as DeMaria (upstaged) challenge the local fisherman, effectively forcing him to consider a safe release of the endangered species.

"Students learned a valuable lesson about taking a stand for the environment in spite of possible ridicule or danger that day," said Mike Andrews, who co-teaches "Environmental Science: Issues and Andrews," a course that DeMaria developed to expose students to the importance of their surroundings.

For her hard work and her dedication to environmental education, DeMaria will receive the 2003 Conservation Award and be named Pennsylvania's "Conservation Educator of the Year" during a luncheon on Monday in Altoona hosted by the Pennsylvania Association of Conservation Districts, Inc. (PACD).

The award is presented by the PACD to a teacher in the Commonwealth who has demonstrated a strong commitment to conservation education programs and activities in kindergarten through 12 grade.

"Cindy challenges her students to identify environmental problems around the school and community and then designs and implements those solutions," said PACD spokesperson Shannon Eberly. "Examples of projects her students completed are: school grounds beautification, wetland improvement, habitat enhancement and a park clean-up."

Among many other accomplishments, her students are credited with uncovering and reporting hazardous waste at the former U.S. Magnet site in Yardley. The report resulted in a massive clean-up of the land by the state Department of Environmental Protection and the listing of the area as an EPA Super Fund site.

"Cindy has worked tirelessly for many years to bring the best in environmental education to Pennsbury students," said Andrews. "She is part of a team that developed a unique, dynamic, and innovative environmental science course for students of all academic levels. With her Special Education background, she has worked to keep our course an inclusive classroom. She is a gifted teacher who gets the best from students of limited academic ability."

"I am very honored," said DeMaria of the award. "I know there are a lot of very dedicated people out there teaching environmental studies. I'm happy to know our course is getting recognition for what we are trying to accomplish."

This article is excerpted from an article that appeared in the Yardley News. It is an interview with Cindy DeMaria, a special education teacher in the Pennsbury (Bucks County) School District, who in April, 2003, was selected as the Bucks County Conservation District's Environmental Educator of the Year.

Bucks Directors tour county projects

A 20-passenger bus filled with Bucks County Conservation District directors and staff participated in a recent four-hour tour (with appropriate narratives and descriptions) designed to give both groups a first-hand understanding of a number of large or unusual projects in Upper and Central Bucks County.

This tour, the first of its kind for the Bucks District, was arranged by Fred Groshens, district manager. Sites visited during the tour, were: The Pennridge School District expansion site, a 4-year, nearly \$100 million project covering more than 140 acres that ultimately will result in the excavation some 145,000 cubic yards of soil; a temporary stream relocation that was required as part of a road rebuilding project related to a housing development; a highly successful, man-made wetlands area also used as an environmental classroom; a close to 40-acre spray irrigation project that serves several nearby housing developments; a downtown redevelopment (Act 2) site in Doylestown formerly occupied by a fish-processing plant, and a 67-acre farm owned by the Conservation District's 2003 Farm Family-of-the-Year.

The tour concluded with lunch provided by the District at the county's Peace Valley Park. The bus was provided by Bucks County Transport, a county-related bus service.

Judging from the positive response of board members and staff alike, the tour is likely to become an annual event in Bucks County.



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This special event is co-sponsored by the Pennsylvania Association of Conservation Districts (PACD), PennDOT, the Associated Pennsylvania Constructors (APC), and the Pennsylvania Department of Environmental Protection (PA DEP) also support the conference.

The conference will include 1-1/2 days of educational and technical "breakout" sessions for anyone responsible for the design, review and implementation of Stormwater Management and Erosion & Sediment Control Best Management Practices. The sessions will be in "tracks" for engineers / landscape architects, contractors / developers / inspectors / regulators, and DOT personnel. The trade exposition (over 30 exhibits) will be extremely informative with new and innovative materials and technology to combat erosion and related challenges.

An exam-review course to become a CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) will be offered. For current information please visit MAC-IECS's web page at www.macieca.org.

Montgomery County Conservation District will be mailing conference flyers to addresses on our current mailing list. If you are interested in obtaining additional information but did not receive a flyer, contact your county conservation district.

Rich Kadwill, Montgomery County CD



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