



down to earth

Environmental Restoration Quarterly • Winter 2018

1 Tree Planting

2 Stormwater Restoration in Hampstead

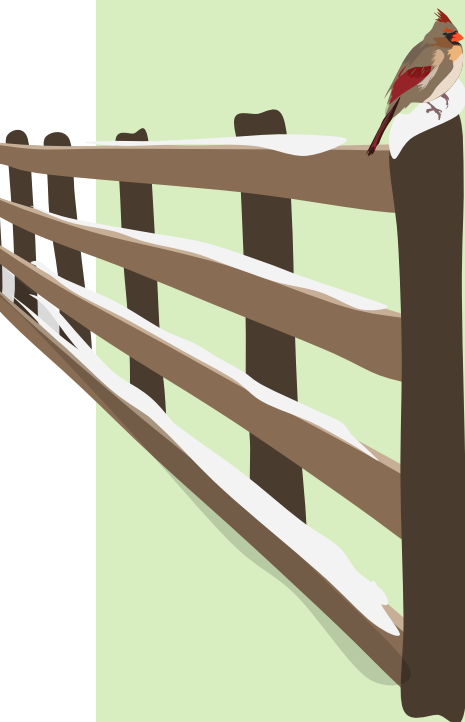
3 Environmental Awareness Awards

3 Environmental Stewardship

3 Guide to Residential Solar Installation

4 Roberts Mill Stormwater Management Facility

4 Winterizing Solutions



Bureau of Resource Management Partners With Private Property Owners to Plant Trees and Improve Water Quality

By Jonathan Bowman, Forest Conservation Specialist

In 2017, the Carroll County Bureau of Resource Management has been working with local property owners to plant trees on 23 properties within the Liberty and Prettyboy Watersheds. The process started early in the year when postcards were sent to property owners offering the no-cost planting service. Owners who responded positively had their properties evaluated to determine if they were good candidates for this restoration effort. Ultimately, 19 acres of plantable area were identified and planted by year's end.

Tree plantings such as these are an important way in which the County meets water quality improvement requirements. Planting trees on an open field or grass lawn results in a real transformation. The visual transformation is obvious, but this is only one of the changes that takes place. As they grow, the trees will improve the water quality in our local streams by filtering sediment and nutrients from stormwater runoff. In addition their roots will help stabilize stream banks thus decreasing erosion. As they mature, streamside trees provide shade throughout the growing season resulting in cooler stream temperatures. In the fall, these same trees drop their leaves in the stream providing organic matter that is the basis of the aquatic food web. Both of these physical changes greatly benefit stream dwelling organisms. Other types of wildlife will also benefit from the food and shelter these new

trees provide. Last but not least, it is appropriate to consider the air quality improvements that will result from these trees sequestering carbon dioxide and producing oxygen.

Twenty-three property owners invited the County to plant on their properties. Their reasons for doing so were wide-ranging. Some want to cut less grass, others want to stabilize the eroding banks along their stream, still others were interested in creating wildlife habitat or improving the aesthetics of their property. As the trees grow and these goals are achieved, these owners will reap the very real benefits of having more spare time, improved property value, and greater enjoyment of their property. If you are interested in planting trees by the stream on your property, contact Jonathan Bowman, Carroll County Bureau of Resource Management at 410-386-2133.



Stormwater Restoration in Hampstead

By Janet O'Meara, Watershed Management Coordinator

In 2014, Carroll County partnered with the eight municipalities through a Memorandum of Agreement (MOA) to perform restoration to treat currently untreated impervious areas. The Bureau of Resource Management, along with the municipalities, identified projects within each jurisdiction. These projects will meet the goals set forth by the National Pollutant Discharge Elimination System (NPDES) Permit and Total Maximum Daily Load (TMDL) requirements associated with the Chesapeake Bay and our local watersheds.

The Small Crossing and Savannah Estates Stormwater Management Facilities in Hampstead were identified as an opportunity to retrofit an existing facility within the Town, bringing the facility up to current State and County stormwater management standards while treating currently untreated impervious

surface. The County contracted with EA Engineering to perform the design work for this project. Throughout the design process, community meetings were held with the residents and Homeowners Association.

The new footprint of the Small Crossing facility expanded to include the adjacent Savannah Estates facility. The slopes of the facility were graded to allow for efficient machine mowing, and a new riser structure was constructed. The facility utilizes a modified sand filter design which includes a recharge reservoir made up of 9" of green wood chips and 10" of No. 8 stone, topped off with 24" of 4:1:1 Sand/Soil/Green woodchip mix. A series of under drains run through the No. 8 stone layer. New inlets were installed along Burnside Drive and McAllister Lane to

convey additional water to the Small Crossing facility. The new facility meets current water quality and channel protection standards. A bio-retention facility was constructed at the end of McAllister Lane to capture drainage that could not be conveyed to the facility through the existing storm drain system.

Construction of the facilities was awarded to Thomas, Bennett & Hunter, Inc. Construction began in May and wrapped up in late October with the completion and planting of the bio-retention facility.

For additional information relating to this project, please visit our website at <http://ccgovernment.carr.org/ccg/resmgmt/>.



Bio-Retention Facility installed at the end of McAllister Lane



Small Crossing Stormwater Management Facility

Partial grant funding for this project was provided by:



Environmental Advisory Council (EAC) Seeks Award Nominations

By: Brenda Dinne, Special Projects Coordinator

Individuals and groups that have demonstrated and promoted awareness of the environment through their actions and projects may be recognized for their efforts.

The Carroll County Environmental Advisory Council (EAC) announced that it is seeking nominations for the 2018 Environmental Awareness Awards. The purpose of the awards program is to promote awareness of the environment and acknowledge exemplary accomplishments in the protection, conservation, and improvement of our environmental resources.

The Carroll County Commissioners adopted the Environmental Awareness Awards program in 1990 to recognize individuals and groups that have demonstrated these qualities through their actions or projects.

Awards are presented biennially to individuals and groups chosen from nominees submitted for consideration by their peers, although self-nominations will be accepted. Awards will be granted for endeavors and projects that result in positive benefit to the environment and have the potential for long-term community

environmental benefit in each of five categories: individual, institutional, agriculture, business, and student (K-12 & college).

Nomination criteria and forms, as well as information on how to submit a nomination, are available at <http://ccgovernment.carr.org/ccg/eac/>. The deadline for nominations is March 1, 2018.

EAC Releases Environmental Stewardship in Carroll County Booklet

By: Brenda Dinne, Special Projects Coordinator

The Carroll County Environmental Advisory Council (EAC) recently updated and released the 2017 edition of the booklet, *Environmental Stewardship in Carroll County*. Carroll County has been a leader in the State with programs, policies, and regulations that demonstrate the County's dedication and commitment to environmental stewardship.

The booklet celebrates Carroll's many successes in preserving, protecting, and restoring the environment, as well as in raising community awareness and promoting green practices. Among many other initiatives included, the Agricultural Land Preservation

Program has long been recognized for its achievements in preserving farmland, with over 70,000 acres preserved as of June 30, 2017. Since 2008, the County also has been actively working on retrofitting existing stormwater management facilities to address federal and state permit requirements, with over 85 percent of the permit-required restoration goal already achieved. More information on these and many other programs can be found in the booklet.

The *Environmental Stewardship* booklet is available to view or download under that title on the EAC webpage at <http://ccgovernment.carr.org/ccg/eac/>.



For hard copies, visit the Carroll County Department of Land & Resource Management at 225 North Center Street, Westminster, Maryland. For more information, please contact Brenda Dinne, EAC Staff Liaison, at 410-386-2140 or eac@ccg.carr.org.

Guide to Residential Solar Installation in Carroll County

By: Brenda Dinne, Special Projects Coordinator

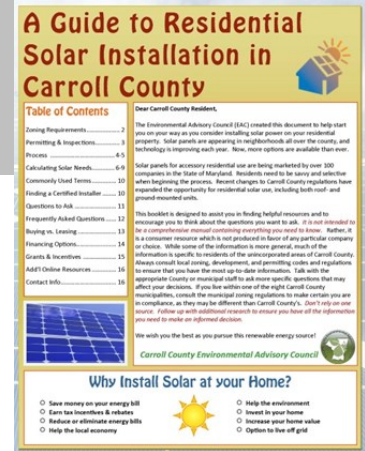
Solar energy as an alternative energy source for individual residents has become more popular and accessible. Solar panels are appearing in neighborhoods all over the County, and technology is improving each year. Solar panels for accessory residential use are being marketed by over 100 companies in the State of Maryland. While these trends generally benefit consumers through lower costs, it can also present challenges for the average homeowner to wade through the vast amount of information available and identify applicable and relevant information. Residents need to be savvy and selective when beginning the process.

Recent changes to Carroll County regulations have expanded the opportunity for residential solar use, including both roof- and ground-mounted units. The Carroll County

Environmental Advisory Council (EAC) recently released a new publication, *Guide to Residential Solar Installation in Carroll County*. The guide is intended to assist Carroll County residents in navigating the process to install solar energy facilities at their homes.

This booklet provides residents interested in installing solar facilities with basic information covering zoning and permitting requirements, questions to ask installers or solar companies, finding a certified installer, buying versus leasing, financing options, and more. It also offers additional online resources for homeowners to pursue for additional information.

The *Guide to Residential Solar Installation in Carroll County* is available to view or download on the EAC webpage at



<http://ccgovernment.carr.org/ccg/eac/> under Current Topics/Issues. For hard copies, visit the Carroll County Department of Land & Resource Management at 225 North Center Street, Westminster, Maryland. For more information, please contact Brenda Dinne, EAC Staff Liaison, at 410-386-2140 or eac@ccg.carr.org.



Existing Facility



Planned Facility

Roberts Mill Stormwater Management Facility

By Christopher Heyn, PE, Watershed Restoration Engineer



Maryland
Department of
the Environment

The Carroll County Bureau of Resource Management is working with the City of Taneytown to address National Pollutant Discharge Elimination System (NPDES) permit requirements. A primary component of the cooperative work is to identify locations where impervious area runoff can be treated.

The northwest corner of the City drains to Roberts Mill Run, a tributary of the Upper Monocacy River. As the small tributary leaves the developed portion of the City, the drainage area is over 300 acres with approximately 83 acres of that being impervious. There are some existing stormwater facilities in the watershed, but they provide minimal impervious area treatment.

The Bureau and City have identified a project site along Roberts Mill Run where a retention facility could be constructed to provide water quality treatment for the entire watershed. O'Brien Street has a planned connection over the stream where a proposed bridge is being considered to function as the control structure for a new stormwater facility.

Just upstream of O'Brien Street is an existing instream detention basin that provides flood control. The plan is to replace the detention basin with a new wet pond that will provide water quality management for the watershed as well as continue to provide flood control.

The County is currently reviewing preliminary plans that include a walking trail around the facility and extensive vegetation to enhance the natural ecosystem. If permitting and plan progress continue on track, it is estimated that construction may begin as soon as summer of 2018.

While the facility construction will not include construction of the O'Brien Street bridge, construction plans will be provided to the City of Taneytown that will allow the City to proceed with construction of the bridge when funding is available. The new bridge will provide important inter-connectivity between neighborhoods.



Button Up Your Home: Winterizing Solutions

Compiled from EarthShare.org

As the seasons change and your family migrates indoors for the winter, a lot of energy can be wasted to keep your home comfortable. Between 40 and 70% of all home energy is wasted, but we could save about half of that by buying efficient appliances and taking energy-saving measures.

Here are some inexpensive solutions to consider:

Cover your air conditioner: If you can't remove your window unit, consider covering it both inside and out.

Caulk it: Small spaces and gaps around windows and pipes and wires entering the home create energy wasting drafts that can cut the efficiency of your heating system.

Block drafts: Draft blockers are foam plates that fit behind light switches and electrical outlets to reduce drafts that enter through those spaces.

Perform regular maintenance: If you have a forced air furnace, make sure to clean or change the furnace filter about once a month.

Upgrade your thermostat: Changing your thermostat to a programmable one allows you to control the temperature in your home at different times of the day without you being home. Keep the heat off when you're out of the house and set it to turn back up before you get home.

Weatherstripping: Create a tight seal around all your windows to reduce heated and cooled air from escaping outside. Weatherstrips are plastic, foam, felt or rubber strips that fit around window and door frames with a self-adhesive backing.

Need More Help? The Energy Department's [Home Energy Saver](https://www.energy.gov/public-services/homes/home-weatherization) (<https://www.energy.gov/public-services/homes/home-weatherization>) allows you to enter information about your home and compute what specific changes would result in energy and environmental savings.