



Environmental Protection Matters

DNREC Office of Environmental Protection

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Growing Green in Sussex County

There's new growth in Sussex County. And it's green. From little flower pots to large, commercial farms, folks are using compost to grow greener, healthier plants.

Robert Tunnell, Vice-President of Blue Hen Organics, has created just the right blend of compost for his Sussex-area customers. "We are ready to go with lots of beneficial compost to meet our customer's spring-planting needs," stated Tunnell.

Composting is the biological decomposition and stabilization of organic

material under specific conditions. In other words, composting speeds up the natural degradation process. By controlling the blend of feedstock and controlling conditions in the process, composters produce a dark, nutrient-rich, beneficial soil amendment.

Gardeners and growers love compost because it makes a healthier soil. Compost naturally helps improve moisture retention, raises organic content, and helps suppress plant diseases. Because it creates a healthier, more productive soil, compost reduces or

(Continued on page 2)



Blue Hen Organics

The finished compost is screened at Blue Hen Organics, creating a uniform product. The composting facility is located at 33529 Fox Run Road in Frankford, Delaware.

Growing Green in Sussex County *Continued...*

eliminates the need for fertilizers and pesticides.

Blue Hen Organics produces compost from yard trimmings, chicken litter, food scraps, and similar materials. They are the only commercial composter currently permitted by DNREC's Solid and Hazardous Waste Management Section in Sussex County, and only one of two in Delaware. The other is Peninsula Compost Company's Wilmington Organic Recycling Center.

A local non-profit is also promoting the benefits of composting, not just to recycle food waste, but also as a mechanism to help grow food. First implemented in the Rehoboth Beach area in 2011, REPLENISH is the Delmarva Community Wellnet Foundation's food-recycling project. The initial grant-funding support for the program was provided by the DNREC-administered Regional Greenhouse Gas Reduction Initiative (RGGI), regional energy producer/supplier Constellation/Exelon, the Longwood Foundation and the Welfare Foundation (in Wilmington).

REPLENISH is expanding into northern Delaware, partnering with Peninsula Compost Company to assist food generators in the Newark-Wilmington area. The organization works with restaurants, waste collectors, composters, and farmers to foster the sustainable cycle of using food scraps from a restaurant to the composter to the farm field. Area farmers can then sell their bounty of produce back to the Delmarva area restaurants.

In 2012, REPLENISH collected 245 tons of organic materials from 30 restaurants in the Lewes-Rehoboth Beach area, saving each restaurant an estimated \$1,000 on their annual trash bills. Blue Hen Organics composted these materials to make nearly 100 tons of nutrient-rich compost. By not landfilling the material, the program kept more than 500 tons of CO₂ and nearly 25 tons of methane out of our air.

Blue Hen Organics is a key partner of the REPLENISH program. "We have been gearing up for the spring season for months with 32 Rehoboth-based restaurants now participating in recycling food wastes," said Tunnell. Adding organic wastes from places like local grocery stores, Salisbury University and the Eastern Correctional Institute, Blue Hen Organics is keeping a tremendous amount of waste from going into the landfill, while creating a beneficial product.

Blue Hen Organics sells their customized compost as far as Maryland's western shore, but certainly encourages its use more locally. "We are celebrating our fourth year in the business this April and have learned a lot from our customers including local farmers," stated Tunnell. "We can now customize our product to their growing conditions and soil types, especially by increasing moisture retention for local sandy soils. Our compost naturally releases nutrients slowly and has beneficial microbes, which surpasses other fertilizers such as chicken manure that quickly release nutrients to the environment."

The benefits of quality compost as a natural, healthy soil amendment are real. However, compost is produced all across the country, and not all compost is the same. DNREC has criteria for the analysis of the compost made in Delaware to ensure that it meets quality standards, and composters sample and analyze their compost regularly. Talk to your local supplier about where their compost comes from and its benefits. And before you buy, especially before you buy fertilizer, consider your local compost producer. Let the spring planting begin!

For more information on composting and the REPLENISH project, please visit:

<http://www.dnrec.delaware.gov/dwhs/recycling/Pages/Replenish.aspx>

**DNREC Press Release 5/19/2013
W. Miller, SHWMS and C. Wirtz, WHS**

Notes on Growing Green in Sussex County

About Delmarva Community Wellnet Foundation

Incorporated as a community non-profit organization in 2004, the Delmarva Community Wellnet Foundation (The Wellnet) launched its Energize Delaware Now (EDEN) Delmarva project in 2010 to serve the Delmarva Peninsula by creating business opportunities for the reclamation and recovery of renewable resources, with a focus on agriculture. EDEN's projects and programs include REPLENISH, which began operations in 2011. For more about The Wellnet and its EDEN projects including REPLENISH, please visit: www.edendelmarva.org

About Blue Hen Organics

Blue Hen Organics began operations in 2010 with the goal of diverting organic waste from landfills to produce nutrient-rich compost to be used as a natural, organic soil additive in place of synthetic fertilizers. Its 46 acre facility near Dagsboro accepts biodegradable materials including yard waste, land clearing debris, poultry manure, food waste, and hatchery waste to turn into compost, topsoil, and specialty compost-based soil blends. Blue Hen Organics' compost is sold to farmers, landscapers, and is available at 23 retail locations across the Delmarva Peninsula. For more information on Blue Hen Organics, please visit: www.bluehenorganics



M. Anthony, SHWMS

The organic material mixtures are placed in trapezoidal windrows at Blue Hen Organics, based on a computer model formula for each type of compost.

About the Regional Greenhouse Gas Initiative (RGGI)

RGGI is the first market-based regulatory program in the United States to reduce greenhouse gas emissions. RGGI is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont to cap and reduce CO₂ emissions from the power sector. Following a comprehensive 2012 Program Review (<http://rggi.org/design/program-review>), the RGGI states implemented a new 2014 RGGI cap of 91 million short tons. The RGGI CO₂ cap then declines 2.5% each year from 2015 to 2020. The RGGI CO₂ cap represents a regional budget for CO₂ emissions from the power sector. States sell nearly all emission allowances through auctions and invest proceeds in energy efficiency, renewable energy, and other consumer benefit programs. These programs are spurring innovation in the clean energy economy and creating green jobs in the RGGI states. For more information, please visit: www.rggi.org

Delaware's Revised Septic System Regulations

Start Action Notice #2008-29: *Update the Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems; and Revise the Guidance and Regulations Governing the Land Treatment of Wastes.*

It all started in 2008 with the start action notice above in the DNREC-Division of Water's weekly notes to Gov. Jack Markell. Who knew that five years later this monumental task would finally be completed on a cold day in January?

Whatever you want to call it — professionalism and dedication, tenacity, or just sheer, dogged determination — it all culminated with DNREC Secretary Collin O'Mara's

approval of the Secretary's Order and press release making the Delaware Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems effective on Jan. 11, 2014.

In between, there were countless meetings with stakeholders including on-site licensees, municipalities and local legislators, wastewater management companies, real estate agents, and interested citizens. There were also 13 workshops and three public hearings in the tri-county area to review and discuss the regulations, receive comments, and revise the regulations accordingly.

The press release went out at 2:30 pm on Jan. 7, 2014, informing all interested parties that the regulations were officially adopted. And there were plenty of interested parties to notify: the Ground Water Discharges Section staff responsible for this herculean effort, on-site licensees, industry-interested parties and all others

involved in the revision process for this incredible undertaking.

Many thanks were shared for the collaborative effort between the Department, on-site licensees, on-site professionals, legislative proponents, the public, governmental entities and private organizations. Through it all, difficult decisions and compromises were hammered out for the better good of the environment.

So what changed? First and foremost, the entire order of the regulations was changed for better

flow. The regulations now follow the permitting process from soils work to operation and maintenance of systems for both small residential

To review the regulations, effective Jan. 11, 2014, please visit:

http://www.dnrec.delaware.gov/wr/Information/GWDInfo/Documents/DelawareFinalOnSiteRegulations_01112014.pdf

and large community and commercial systems. The regulations also incorporate the spray irrigation guidelines and regulations, so spray irrigation is now part of the large systems. The new regulations also standardized the large system permitting process for on-site systems and spray irrigation. Definitions were also added to provide clarification and help define trade terminology.

Now enacted, Delaware's revised septic system regulations are keeping pace with changes in new technology for large and small systems, protecting public health and the environment. By reducing pollution in groundwater, streams, rivers and bays, the revised regulations will help Delaware meet its goal of achieving clean water.

For the DNREC Secretary's Order approving the regulations, please visit:

<http://www.dnrec.delaware.gov/Info/Documents/Secretarys%20Order%20No.%202013-W-0060.pdf>

DNREC Press Release 1/7/2014
J. Hayes, Water, and C. Wirtz, WHS

Energy and Climate Updates

Executive Order 41: Preparing Delaware for Emerging Climate Impacts and Seizing Economic Opportunities from Reducing Emissions

The Division of Energy and Climate has been very busy getting the word out on Delaware's new climate change initiatives and energy-saving programs. If you haven't heard about EO 41 and the results of the new Climate Change Impact Assessment, you are not alone.

EO 41 directs state agencies to improve resiliency by recognizing the risks of flooding and sea level rise, developing implementable strategies for adaptation and preparedness to temperature and precipitation fluctuations, setting goals for greenhouse gas (GHG) reductions and identifying actions to reduce GHG emissions.

To assist state agencies and DNREC in implementing EO 41, DNREC staff from the Energy and Climate, Air Quality and Watershed Stewardship divisions, along with staff from Coastal Programs, have been offering educational sessions on climate. These sessions provide critical foundational knowledge that supports each agency in developing agency-specific strategies to mitigate GHG emissions and prepare for short-term and long-term climate impacts. For more information on EO 41, please visit: <http://governor.delaware.gov/orders/EO41.pdf>

Climate Change Impact Assessment — The Division of Energy and Climate published the Delaware Climate Change Impact Assessment on its website in March. This document is a science-based summary of how changing climate conditions may affect Delaware citizens, businesses, and communities. It looks at the potential impacts from increasing temperatures, changes in precipitation, and rising sea level.

The document includes: 1) a summary of recent climate trends and future climate projections for the State of Delaware; 2) a synthesis of the best available climate science that describes current and future impacts of climate change; and 3) a summary of the potential impacts to Delaware



G. Emeigh, The News Journal
DNREC's Emergency Response Unit No. 3 assists the Oak Orchard community after a nor'easter ("Nor'Ida") in Nov. 2009.

resources in five sectors: public health, water resources, agriculture, wildlife and ecosystems, and infrastructure. For more information, please visit: <http://www.dnrec.delaware.gov/energy/Pages/The-Delaware-Climate-Impact-Assessment.aspx>

Joint Green Energy Program — On Jan. 16, the Sustainable Energy Utility (SEU) Executive Committee voted to approve a new Joint Green Energy Program between the SEU and the Division of Energy and Climate. The SEU will use \$1.5 million of RGGI funds per year for two years to buy Solar Renewable Energy Credit (SRECs) from small solar systems in a single payment. By reducing subsidy levels to take advantage of lower installation costs, the proposed program will increase the installation of solar by up to 6.6 MW; an increase of 12% over Delaware's 2013 installed capacity of roughly 50 MW. More information on the program will be available soon.

Home Performance with Energy Star (HPwES) Program — The SEU has also launched the HPwES program designed to help Delaware homeowners reduce their energy consumption and save money on their utility bills. It all starts with a Building Performance Institute (BPI) certified home energy assessment, where Delawareans can receive an instant rebate of 50% off the audit cost, up to \$200. These energy-saving improvements can provide significant energy savings up to 20%. And, let's not forget the comfort improvements! More about the HPwES program can be found at: <http://www.energizedelaware.org/Home-Performance-with-Energy-Star/> T. Evans, DEC

Legislatively Speaking

DNREC's Division of Waste and Hazardous Substances (WHS) will pursue five pieces of legislation this year. The legislation is designed to enhance the state's ability to protect public health and safety and the environment from hazardous substance releases.

These include changes to the Hazardous Substance Cleanup Act (HSCA), the Underground Storage Tank Act (UST), the Jeffery Davis Above Ground Storage Tank Act (AST) and the Extremely Hazardous Substances Risk Management Act (EHS).

WHS hopes to introduce two bills on HSCA. The first one addresses issues raised by the Delaware Banker's Association and suggestions made during Governor Jack Markell's review of all state regulations. This bill will codify lender liability provisions to ensure that banks are not held responsible for contamination on the site just for providing financing.

This bill also allows DNREC to directly pay consultants working for a Brownfield Developer, with that developer's consent, as opposed to the current system where DNREC reimburses the developer for their payments to the consultant. The bill will also make HSCA enforcement consistent with other DNREC-related code and allow DNREC to issue a Secretary's Order, followed by a hearing if requested, rather than requiring a hearing prior to issuing an order.

A second proposed HSCA bill relates to the conversion of golf courses and orchards to anything other than agricultural use. The appropriate application of pesticides and fertilizers is not covered by HSCA. However, until it was banned in 1988, historical use of properly applied lead arsenate has resulted in levels of arsenic in soils that exceed Delaware's background levels and pose a risk to human health and the environment. The sole reason is that arsenic doesn't break down.

This bill would require investigation and, if needed, remediation of former golf courses and orchard sites if the proposed use is for anything other than agricultural purposes. It would also release the landowner from liability for any accumulation of arsenic in soils due to the proper application of pesticides and fertilizers. The developer would also receive a release from liability, while providing funds to assist with the investigation and remediation.

The UST bill also addresses lender liability in addition to clarifying who is responsible for releases from underground storage tank systems. Along with some other technical edits, the bill clarifies the Department's right to access a property to confirm suspected releases and allow the Department to require an environmental covenant be placed on a property where residual contamination is left in place that might require additional remediation if the property is converted to another use.

The only significant change to the AST Act is to address lender liability, consistent with what is proposed in the HSCA and UST bills.

The EHS bill has two main purposes. First, expanding the definition of "extremely hazardous substance" to include any short-term exposure to a chemical that can result in public death, injury, or property damage due to their toxicity, reactivity, volatility or corrosivity. This change will bring it in line with changes to the federal Clean Air Act Amendments and Risk Management Plan.

The bill will also remove the requirement that DNREC inspect every facility every three years and instead allow DNREC to base inspection rates on the risk posed by chemicals at a facility, the facility's compliance history both with the EHS Act and other environmental acts enforced by the DNREC, and a recent release of an EHS.

M. Crofts, WHS

Solid and Hazardous Waste Management Section by the Numbers

DNREC's Solid and Hazardous Waste Management Section (SHWMS) is responsible for controlling the storage, transport and disposal of solid, infectious and hazardous waste in Delaware and also for coordinating recycling and yard waste management. The section is composed of three groups: Waste Generation, Transport and Program Development; Waste Facilities; and Waste Reduction/Reuse/Recycling. One of SHWMS' many waste management responsibilities is to ensure that hazardous waste is properly handled, stored, transported and disposed. In Delaware:

- ✦ There are approximate 60 large quantity generators generating over 43,000 tons of hazardous waste (from the 2011 bi-annual report) and 571 small quantity generators. SWHMS has five people assigned to regulate these facilities (115 facilities per person).
- ✦ There are 15 Resource Conservation and Recovery Act (RCRA) Corrective Action facilities where remediation is required due to a release of hazardous waste. Two people at SWHMS are assigned to oversee those cleanups.

Fees for the transport, treatment/storage/disposal facilities and waste assessment have not changed since 1991. For more information on the SHWMS, please visit:

<http://www.dnrec.delaware.gov/dwhs/SHWMB/Pages/SHWMB.aspx>

M. Crofts, WHS

The Cyanide Chasers

Met the Division of Waste and Hazardous Substances' (WHS') Environmental Protection Team award winners—the Cyanide Chasers—Melissa Ferree and John Cargill (WHS), Glenn Davis (Division of Water), and Jim Lorah (USEPA). The Cyanide Chasers Team from WHS, Water, and the USEPA joined forces at a plating operation in Delaware to prevent the continued mismanagement of plating waste and to ensure no impact to human health was occurring.

By working collaboratively between programs, divisions and agencies, this team transformed the problems associated with their individual programs into a comprehensive multi-program solution that resulted in felony convictions for the plating operation and owner, and a cleaner environment for Delawareans.



From left to right, Division of Water Director, Kathy Stiller; Glenn Davis (Water); WHS Director, Marjorie Crofts; Melissa Ferree (WHS-SHWMS); DNREC Secretary Collin O'Mara; and John Cargill (WHS-SIRS) at the annual DNREC Office of Environmental Protection recognition event last year.

DELAWARE
DEPARTMENT OF
NATURAL
RESOURCES AND
ENVIRONMENTAL
CONTROL

Secretary Collin P. O'Mara
Deputy Sec. David Small

DNREC Office of
Environmental Protection
89 Kings Highway
Dover, Delaware 19901
Phone: 302-739-9000

Division of Air Quality
Division Director
Ali Mirzakhallili
Phone: 302-739-9402
Fax: 302-739-3106
ali.mirzakhallili@state.de.us

Division of Energy & Climate
Acting Division Director
Phil Cherry
Phone: (302) 735-3480
Fax: (302) 739-1840
philip.cherry@state.de.us

Division of Waste and
Hazardous Substance
Division Director
Marjorie A. Crofts
Phone: 302-739-9400
Fax: 302-739-1894
marjorie.crofts@state.de.us

Division of Water
Division Director
Kathleen M. Stiller
Phone: 302-739-9950
Fax: 302-739-7864
kathleen.stiller@state.de.us

Environ. Protection Matters
Editor: Christina Wirtz
Phone: 302-395-2600
christina.wirtz@state.de.us

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Division of Air Quality handles the majority of air issues in Delaware including: monitors and regulates all emissions to the air; issues "permits to construct" and "permits to operate" to air contaminant sources; maintains emission inventories from business and industry; develops the State Implementation Plan as required by the Clean Air Act; adopts new regulations and enforces existing regulations and permits; and inspects asbestos removal sites.

Division of Energy and Climate's mission is to serve the people of Delaware by reducing the adverse impacts of energy use on our environment, health, and economy. We educate, lead by example, and build partnerships to increase energy efficiency and renewable energy, promote sustainable growth, and prepare for a changing climate.

Division of Waste and Hazardous Substances plans for and responds to, environmental incidents; regulates the handling, transfer, storage and disposal of solid, infectious and hazardous waste; manages the recycling program in Delaware; regulates above and underground storage tanks and boilers; oversees the remediation of sites that have been contaminated by hazardous substances and chemicals; and implements Delaware's Brownfields Development Program.

Division of Water manages and protects water resources through various programs by providing technical assistance, laboratory services, regulatory guidance and implementation, and educational services; and performing applied research.

EASY REFERENCE PHONE NUMBERS

24-Hour Report and Spill Notification Line - 1-800-662-8802

Aboveground Storage Tanks - 302-395-2500
Air Quality - New Castle Office - 302-323-4542
Air Quality - Kent & Sussex - 302-739-9402
Asbestos New Castle - 302-323-4542
Asbestos Kent & Sussex - 302-739-9402
Biosolids Permits - 302-739-9946
Boiler Safety - 302-744-2735
Brownfields - 302-395-2600
Delaware Estuary Program - 302-739-9283 (Delaware Coastal Management Program)
Division of Air Quality Director's Office - 302-739-9402
Division of Energy and Climate Office - 302-735-3480
Division of Waste and Hazardous Substances Director's Office - 302-739-9400
Division of Water Information - 302-739-9950
Dock/Dredging/Bulkheads/Rip-Rap/Wetlands & Subaqueous Lands - 302-739-9943
Emergency Prevention and Response - 302-739-9404
Environmental Crimes Unit - 302-739-9401 or 1-800-662-8802
Environmental Laboratory - 302-739-9942
Hazardous Waste - 302-739-9403
Industrial Stormwater Permits - 302-739-9946
Loans & Grants for Wastewater and Septics (Financial Assistance Branch) - 302-739-9941
Medical Waste - 302-739-9403
Non-Hazardous Liquid Waste Transporters - 302-739-9948
On-site Wastewater Licensing Program - 302-739-9948
Open Burning - 302-739-9402
Outreach Ombudsman - 302-395-2600
Recycling - 302-739-9403
Septic System Permits - Large Systems (Community & I/A) State-wide - 302-739-9948
Septic System Permits - Small Systems for Kent & New Castle Counties - 302-739-9947
Septic System Permits - Small Systems for Sussex County & Holding Tank Compliance Program - 302-856-4561
Site Investigation & Restoration Section (Superfund/Brownfields) - 302-395-2600
Solid Waste - 302-739-9403
Source Water Protection - 302-739-9945
Surface Water Discharge Permits (NPDES) - 302-739-9946
Underground Injection Control & Spray Irrigation - 302-739-9948
Underground Storage Tanks - 302-395-2500
Wastewater Collection, Conveyance and/or Treatment Facility Construction Permits - 302-739-9946
Wastewater Treatment Facility Operators - 302-739-9946
Water Allocation Permits - 302-739-9945
Water Testing - Drinking Water (Division of Public Health) - 302-741-8630
Water Supply - 302-739-9945
Well Driller's License - 302-739-9944
Well Permits & Licensing - 302-739-9944
Wells - 302-739-9945
Wetlands and Subaqueous Lands Section - 302-739-9943