



# Environmental Protection Matters

DNREC Office of Environmental Protection

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## Highlights in this edition include:

**DNREC's New  
UST Closure  
Program** 2  
*Continued...*

**About Those  
Tanks...** 3

**Preparing  
Delaware for  
Emerging  
Climate Impacts** 4

**Preparing  
Delaware  
Continued...** 5

**Compliance  
Corner—Boiler  
Safety** 6

**Did You Know?/  
The Sunday  
Breakfast  
Mission Club** 7

**More  
Information  
on the Office of  
Environmental  
Protection** 8

## DNREC's New Heating Fuel UST Closure Assistance Program

**W**hen property owners switch from oil heat to gas or electric, the underground storage tanks (USTs) are left in the ground, many times with heating fuel remaining in them.

Over time, these tanks will rust and begin leaking their contents into the ground. Eventually, property owners may start detecting the fuel oil by smelling it in their basement, or tasting it in their water if they have a potable well.

Since 2009, DNREC has responded to hundreds of these leaks, costing tens of thousands of dollars to clean up.

Due to the prevalence of leaking, unregulated heating fuel USTs, DNREC's Tank Management Section initiated a new Heating Fuel Underground Storage Tank Closure Assistance Program this spring to help property owners remove, or properly close their USTs in place.

Many residential and business properties in Delaware still heat the premises using a fuel oil tank that is buried underground. Other properties have abandoned USTs that folks have long forgotten. Typically, these tanks were installed over 30 years ago and are well past their expected service life.

*(Continued on page 2)*



**A 300-gallon fuel oil UST is removed and staged on plastic at the Nicholson residence in Wilmington, prior to proper disposal by DNREC's subcontractor.**

## DNREC's New Heating Fuel UST Closure Assistance Program *Continued...*

The new program covers the cost for the removal or closure in place of eligible heating fuel USTs, soil sampling and analysis, over-excavation and disposal of up to 22 tons of petroleum-impacted soil, and some site restoration, subject to statutory limitations and availability of funds.

The new program is funded by the state's Hazardous Substance Cleanup Act (HSCA) Fund and administered by DNREC's Tank Management Section. Governor Markell signed into law amendments to the Delaware Underground Storage Tank Act in October 2014, authorizing the funding for the program.

Two of the homeowners taking advantage of the new program in March — Steven Zabowski, located in Newark's North Star Subdivision, and Bill Nicholson, located in Wilmington's Shipley Heights Subdivision — had high praise for the new program. Zabowski stated that, "Every house in the neighborhood still has a fuel oil tank from the 1970s." Zabowski further noted that with half the properties still on groundwater wells, the new program ensures that "we do it right, get it done, and do not leave environmental problems for future generations."

Nicholson was especially happy about the new program and DNREC's Emergency Prevention and Response Section (EPRS), as he recently experienced petroleum vapor intrusion in his home from an old, abandoned UST located directly outside his dining room. When he purchased the home 21 years ago, he was not aware that there was a UST on the property. He greatly appreciated the EPRS staff who quickly



**DNREC Hydrologist, Amy Bryson, confers with homeowner, Bill Nicholson, at his residence in Wilmington.**

responded to the spill incident and helped direct him to the new program, as well the Tank Management Section staff and DNREC-approved subcontractors, who subsequently helped with the tank removal and cleanup. He noted that, "Everyone has been so responsive, thorough, knowledgeable, and helpful in covering every base in the process." He added, "Most assuring when you have a problem like this at your home."

The new Heating Fuel UST Closure Assistance Program is consistent with the DNREC's mission to be protective of human health, safety and Delaware's precious environment by providing limited funding to remove, or close-in-place, existing unregulated, heating fuel USTs, before they have the opportunity to cause a release.

For more information about the program, homeowners and other interested parties should visit:

<http://www.dnrec.delaware.gov/dwhs/tanks/Pages/Heating-Fuel-UST-Closure-Assistance-Program.aspx>

*A. Bryson, TMS and C. Wirtz, WHS*

## About Those Tanks...

**The Tank Management Section (TMS)** oversees the operations of regulated USTs and above-ground storage tanks (ASTs), such as those at gas stations, businesses and industrial sites throughout Delaware. When leaks occur, they also oversee the cleanup of the sites. With most of Delaware relying on groundwater for drinking water, both preventing leaks and cleaning them up quickly are vital to protecting Delaware's precious drinking water supplies. TMS has identified over 4,000 leaking underground storage tanks (LUSTs) since the program began in 1989. The diligent staff in the TMS are proud to say that 97% of them have been cleaned up to date. When you break down the numbers, you can see why:

- Five UST project officers in the **TMS—Compliance Team** conduct an average of 145 compliance inspections annually at regulated UST sites such as gasoline service stations. Approximately 80% are found to be in compliance within 90 days of the time of inspection, while the remaining 20% require additional compliance assistance or enforcement action. In addition, the Compliance Team reviews and oversees the installation of about a dozen new regulated UST facilities each year.
- Four UST hydrogeologists in the **TMS—Corrective Action Team** are responsible for overseeing the cleanup of approximately 110 LUST sites a year. Add in the same number of new releases, and each hydrogeologist oversees more than 55 sites at any given time. While home heating oil USTs 1,100 gallons or less in size are not regulated by the program, cleaning up releases from the tanks are regulated, with approximately 66 cleanups per year.
- To proactively address these tanks, TMS initiated the new **Heating Fuel UST Closure Assistance Program** in February. Amy Bryson, one of the hydrogeologists in the Corrective Action Team, also administers the new program. In the 1st few months of operation, Ms. Bryson issued a total of 36 task orders. Of those, 24 projects already have been completed and 12 projects were issued a No Further Action letter. Have an abandoned heating oil UST? Call Ms. Bryson, or visit the new closure assistance website at:

<http://www.dnrec.delaware.gov/dwhs/tanks/Pages/Heating-Fuel-UST-Closure-Assistance-Program.aspx>



Newark homeowner, Steven Zabowski, observes the excavation of the abandoned 1,000 gallon UST located in his front yard. The top of the UST is exposed for cleaning and closure-in-place (by filling with concrete).

## Preparing Delaware for Emerging Climate Impacts

### Number 41

What's the significance of the number 41? Because it's the international dialing code for Switzerland? Because it's a song by the Dave Matthews Band? Or, because it's the car number for NASCAR champion Kurt Busch?

More important than all that, 41 is the number of Governor Markell's Executive Order that calls for **"Preparing Delaware for Emerging Climate Impacts and Seizing Economic Opportunities from Reducing Emissions."**

Executive Order 41, signed by the Governor in September 2013, directs state agencies and departments to address both the causes and consequences of climate change in three ways:

- ⇒ 1) reducing greenhouse gas (GHG) emissions that contribute to climate change;
- ⇒ 2) increasing resilience to climate impacts; and,
- ⇒ 3) avoiding and minimizing flood risks due to sea level rise.

In the past year, DNREC staff coordinated with colleagues across eleven state agencies and departments to develop recommendations to meet the goals of Exec. Order 41, or "EO 41."

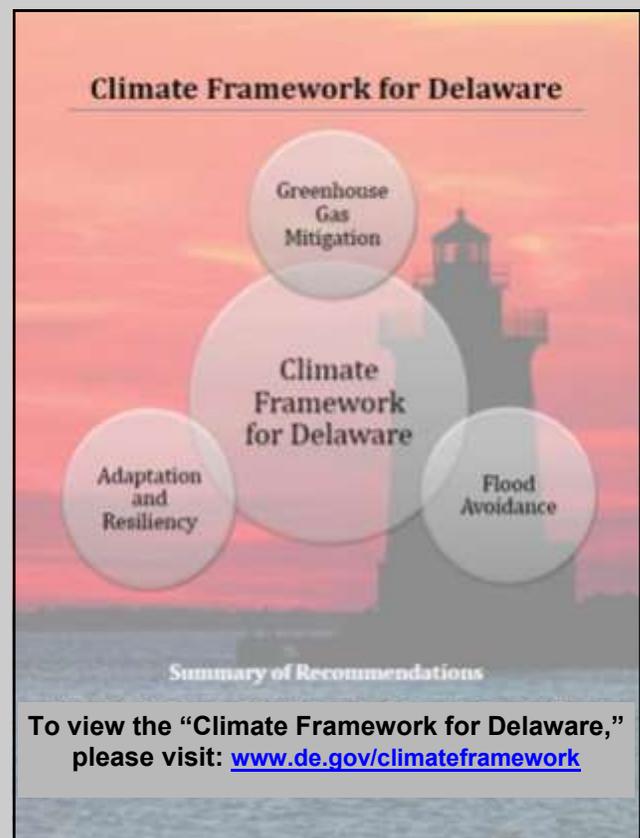
Two technical workgroups were formed and led by DNREC staff to focus on climate mitigation and flood avoidance strategies. Both workgroups include members from many agencies, including DeLDOT, Office of Management and Budget, Department of Agriculture, Office of State Planning Coordination and others.

**The Mitigation Workgroup** was created to examine Delaware's greenhouse regulations, programs, and policies that influence greenhouse gas emissions, and to use the best data available to establish a greenhouse gas reduction target and develop strategies to guide Delaware toward its goal.

**The Flood Avoidance Workgroup** was formed to develop flood avoidance and design guidance to adapt to increased flood heights and sea level rise in the siting and design of state projects. Tools and data developed by this workgroup include new maps and technical guidance for new buildings and infrastructure.

Eleven state agencies and departments participated in **the Adaptation Workgroup**, producing a set of more than 150 recommendations for a wide range of actions that address public health and safety needs, impacts to facilities and infrastructure, and capacity to deliver services to residents, businesses, and communities across Delaware.

For a closer look at any (or all!) of the recommendations for increasing climate resiliency in Delaware, DNREC staff – and the public – are invited



*(Continued on page 5)*

## Preparing Delaware *Continued...*

to read the “**Climate Framework for Delaware**,” a summary report of the EO 41 recommendations and provide feedback by May 30, 2015 at:

[www.de.gov/climateframework](http://www.de.gov/climateframework)

The Climate Framework was submitted to the Governor after approval by the Cabinet Committee on Climate and Resiliency (CCoCAR), established under the Executive Order. In the coming months, DNREC will be participating and helping to coordinate public outreach and stakeholder engagement efforts. Interested in helping with these activities? Please give Morgan Ellis or Jennifer de Mooy a call at the Division of Energy and Climate: (302) 735-3480.

*Jennifer de Mooy, DEC*



*G. Emeigh, The News Journal*

**DNREC emergency response vehicle #3 (Jamie Bethard) drives through flooded streets to assist residents in Sussex County after the September 2011 storm.**

## Many Thanks to the DNREC Team!

**While EO 41 is a statewide initiative – involving participation of staff from 11 state agencies and departments – DNREC has a significant role to play in this effort. Here is a big shout out for the tremendous contributions from our colleagues who have invested their time and expertise!**

DNREC Secretary David Small serves as the chair of the Cabinet Committee on Climate and Resiliency (CCoCAR), assisted by Deputy Secretary Kara Coats and Neelam Patel (Energy & Climate). The two technical workgroups convened under EO 41 are led and supported by DNREC staff:

- **Mitigation Workgroup:** Morgan Ellis, Devin Gladden, Ed Synoski and Bahareh Van Boekhold (Energy & Climate), Valerie Gray and Tunde Ashere (Air Quality), Bryan Ashby (Water), Lindsay Hall, Brad Richardson and Bill Miller (Waste & Hazardous Substances).
- **Flood Avoidance Workgroup:** Susan Love and Molly Ellwood (Coastal Programs), Michael Powell (Watershed Stewardship), Matt Chesser (Parks), Greg Pope (Financial Assistance), and Jennifer de Mooy (Energy & Climate).

Staff representatives from all DNREC Divisions participated in the **Adaptation Workgroup**. This group’s task was developing “actionable, agency-specific” recommendations for climate adaptation. The DNREC Team identified 50 recommendations that can help move Delaware toward greater resiliency to climate impacts.

### **Team members include:**

Delaware Coastal Programs: Susan Love, Molly Ellwood  
 Division of Air Quality: Valerie Gray, Tunde Ashere  
 Division of Energy & Climate: Neelam Patel, Jennifer de Mooy, Ryan Gergely  
 Division of Fish & Wildlife: Karen Bennett, Rob Hossler  
 Division of Parks & Recreation: Matt Chesser, Alana Stewart  
 Division of Water: John Barndt, Virgil Holmes  
 Division of Watershed Stewardship: Michael Powell  
 Division of Waste & Hazardous Substances: Stephen Johnson, Lindsay Hall

## Compliance Corner—Boiler Safety

**M**any people do not realize the potential danger in operating boilers and pressure vessels. Most do not know that their home water heater is a pressure vessel, and if using hot-water radiant heat, their furnace boiler is, too.

Although residential pressure vessels are not regulated by the State of Delaware, proper maintenance by competent service personnel is important, as these and other pressure vessels can explode putting families, homes, and businesses at risk.

DNREC's Boiler Safety Program's mission is to promote public safety through regular inspections of regulated boilers and pressure vessels, and provide education on the proper operation, maintenance and repair of boilers and pressure vessels in Delaware.

There are over 15,000 registered boilers and pressure vessels located throughout the state. Boiler Safety staff maintains a database of these vessels. Boiler Safety commissions insurance company inspectors and more recently, third party inspection agencies, to inspect boiler and pressure vessels.

DNREC's two boiler inspectors inspect boilers and pressure vessels that are uninsured, or overdue for inspection by an insurance agency. The boilers and pressure vessels must be constructed to the American Society of Mechanical Engineers Code and installed with the necessary controls and safety devices to shut them down or alleviate pressure if an unsafe condition develops.

The boilers are generally located in places of "public assembly," which can include apartments, schools, shopping centers, convenience stores, hospitals, and other facilities that serve the public.

Pressure vessels come in all shapes and sizes such as the steel carbon dioxide storage



**Although most water heaters are exempt from Delaware's regulations, large water heaters located in commercial or public buildings that are uninsured or overdue for inspection by an insurance agency must be regularly inspected by a DNREC boiler inspector.**

cylinders found at restaurants and convenience stores, air compressor tanks in auto repair shops and even the air cannons used for the Punkin' Chunkin' competition each fall.

Thanks to the hard work of the Boiler Safety Team, there hasn't been a major incident in Delaware that has resulted in serious injury, or loss of life or property. The Boiler Safety Team continues to work vigilantly to protect public safety and the environment. For more information on DNREC's Boiler Safety Program, please visit:

<http://www.dnrec.delaware.gov/BoilerSafety/Pages/Default.aspx>

*A. Rittberg, TMS and J. Esch, BS*

## The Sunday Breakfast Mission Club

Last Thanksgiving, staff in the Division of Waste and Hazardous Substances' Site Investigation and Restoration Section reached out to help sort and distribute Thanksgiving boxes for families in need at the Sunday Breakfast Mission in Wilmington. All together, they sorted several bins of donated food items and packed 53 boxes in two hours. They also assisted with the distribution of the Thanksgiving boxes and helped stuff envelopes for future donations.

Participating staff (see photo) included: **front row**-Vanessa Hamm, Patty Barone, Pam Livingston, and Todd Keyser; **2nd row**-Krystal Stanley, Kristen Thornton, Kate Durant, Morgan Price, Megan Crystall, Eileen Capitoli, Melissa Leckie, Tracey Wilson, Liz LaSorte and Steve Johnson; and **3rd row**-Larry Jones, Jim Poling, Tim Ratsep, Qazi Salahuddin, Paul Will, Lindsay Hall, Wendy March, Robert Newsome, Stephanie Scholl, Ken Bright and John Cargill.



Site Investigation and Restoration staff help prepare Thanksgiving boxes for distribution to needy families.

## Did You Know?

**DNREC's Environmental Crimes Unit (ECU)** is responsible for enforcing criminal provisions of Delaware's pollution laws, including regulations promulgated by the Divisions of Air, Waste and Hazardous Substances, Water, and Watershed Stewardship.

The ECU is a highly-trained group of enforcement professionals committed to protecting the natural resources of Delaware. Their duties include conducting proactive patrols and investigating citizen complaints, as well as implementing DNREC's acclaimed TrashStoppers program to deter illegal trash dumping in the state.

In addition to their enforcement responsibilities, sworn ECU officers are members of DNREC's Emergency Response Team (ERT) and the State Emergency Response Team (SERT). They respond 24/7 to environmental emergencies and hazardous materials incidents that occur at Delaware industrial facilities, waterways, railways and roadways.

During 2014, DNREC's ECU handled a total of 2,647 complaints covering a wide range of violations and emergencies statewide. Air quality issues from residential (open burning), municipal and industrial sources were the number one complaint with 1,207 calls, followed by waste and hazardous substances with 876 calls, and water pollution discharges at 419 calls, with watershed and other calls at 145.

The Environmental Protection Officers also made approximately 200 arrests in 2014. For more information on the ECU, please visit: <http://www.dnrec.delaware.gov/ocs/Pages/OCS-Enforcement.aspx>

For environmental complaints, spills or releases, citizens are encouraged to call:

- **The toll-free number: (800) 662-8802;**
- **Out-of-state number: (302) 739-9401;**
- **Verizon Wireless number: #DNR.**

*Chief J. Faedtke, ECU and C. Wirtz, WHS*

DELAWARE  
DEPARTMENT OF  
NATURAL  
RESOURCES AND  
ENVIRONMENTAL  
CONTROL

DNREC

Secretary David Small  
Dep. Secretary Kara Coats  
89 Kings Highway  
Dover, Delaware 19901  
Phone: 302-739-9000  
Fax: 302-739-6242  
[david.small@state.de.us](mailto:david.small@state.de.us)  
[kara.coats@state.de.us](mailto:kara.coats@state.de.us)

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

Division of Energy & Climate  
Division Director  
Phillip Cherry  
Phone: (302) 735-3480  
Fax: (302) 739-1840  
[phillip.cherry@state.de.us](mailto:phillip.cherry@state.de.us)

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

Division of Water  
Division Director  
Virgil Holmes  
Phone: 302-739-9950  
Fax: 302-739-7864  
[virgil.holmes@state.de.us](mailto:virgil.holmes@state.de.us)

*Environ. Protection Matters*  
Editor: Christina Wirtz  
Phone: 302-395-2600  
Fax: 302-395-2601  
[christina.wirtz@state.de.us](mailto: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