



**Highlights in
this edition
include:**

**Delaware's New
Oil Pollution
Liability Act** 2
Continued...

**DNREC and
DENIN —A
Productive
Partnership** 3

**Downhome in
Homestead** 4

Homestead 5
Continued...

**What is
Plan EJ 2014?** 6

**TrashStoppers
YouTube Video/
Did You Know?** 7

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

Delaware's New Oil Pollution Liability Act

Should companies that spill oil in the State of Delaware waters be responsible for all the cleanup costs and damages resulting from the spill?

That is the question addressed by House Bill 32. Back in 1977, Delaware passed the Oil Pollution Act (7 Del. C., Chapter 62). Delaware's oil pollution act limits liability for spills from an oil tanker or barge to \$300 per gross ton or \$250,000, whichever is greater, up to a maximum of \$40 million.

If a ship is just carrying oil as fuel, the limit goes down to \$150 per gross ton. These limits have not been changed since enacted. By contrast, the federal Oil Pollution Act sets liability limits at \$3,200/gross ton or \$23,496,000 for a ship over 3,000 gross tons and \$6,408,000 if the ship is smaller.

In the case of the BP *Deepwater Horizon* spill in the Gulf of Mexico, BP was only liable for \$75 million under federal law. BP decided to ignore the federal limits and fund the full cost of cleanup

(Continued on page 2)



Staff Photo, DNREC

DNREC Environmental Protection Officer assists the US Coast Guard and the Delaware Bay and River Cooperative responders in overseeing oil boom deployment to contain a portion of the Mystras oil spill in 1997.

Delaware's New Oil Pollution Liability Act

"[I]n the case of a large spill, there is no certainty under current law that a company would have the financial means to fully compensate victims of the spill. Moreover, the Trust Fund [OLSTF] would likely not provide sufficient backup, and a significant portion of the injuries caused to individuals and natural resources as well as government response costs could go uncompensated." (National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, 2011:3)

and damages.

Had they not taken this voluntary step, the impacted states would have had to take them to court to prove they were grossly negligent or willfully violated the law. If the court found in favor of BP, then BP would have only been liable for removal costs and \$75 million in associated damage costs. And the states would have had to pay their own costs up front and wait for the court settlement to be reimbursed.

Closer to home, the *Athos I* spilled 265,000 gallons of oil into the Delaware River in 2004. This accounted for approximately 1.3% of its 19.4 million gallon cargo. In Sept. 1997, the oil tanker *Mystras* spilled an estimated 20,000 gallons of oil during a lightering operation in the Delaware Bay. Only 8,000 gallons were recovered. The largest spill to date in the Delaware River was in 1975, when 11 million gallons were released at Marcus Hook, PA.

Nearly 42 million gallons of crude oil are moved through the Delaware River and Bay on a daily basis and the Delaware has approximately 3,000 deep-draft vessel arrivals each year and it is the

largest receiving port in the US for very large crude carriers (tanker ships greater than 125,000 deadweight tons).

HB 32 removes all liability limits for oil spills in Delaware. In addition to removing liability limits, the bill also makes Delaware's definitions consistent with the federal Oil Pollution Act and removes the never implemented re-

quirement for a state-issued Certificate of Financial Responsibility and instead requires that a ship have a federally-issued one.

Delaware's House of Representatives passed the bill in April by a vote of 41 to 0, while the Senate passed the bill in May with a vote of

20 to 1. Governor Markell signed the act on June 6, 2013.

The act will now make Delaware's liability limits consistent with both Pennsylvania and Maryland, neither of which have liability limits for oil spills. For more information on HB 32, please visit: <http://www.legis.delaware.gov/LIS/LIS147.NSF/vwLegislation/HB+32?Opendocument>



US Fish and Wildlife Service forensic investigators at the Tincum National Wildlife Refuge morgue examine oiled birds from the Athos I spill (Photo, US Fish and Wildlife Service).

DNREC and DENIN — A Productive Partnership



Battagliese

In 2011, Tom Battagliese was working as a summer intern at the Division of Waste and Hazardous Substance's Site Investigation and Restoration Section (SIRS). He was tasked with doing an analysis on oil spill liability and associated risk of financial exposure in Delaware. Nose to the grindstone, a few months later he presented a thesis-worthy report to DNREC's upper management!

The research and analysis were completed as part of the Delaware Environmental Institute (DENIN) at the University of Delaware, with funding provided by the National Science Foundation's Experimental Program to Stimulate Competitive Research (EPSCoR) in Delaware.

So what did a guy who used to work for BP have to say about Delaware's oil spill liability and risk of financial exposure? Why, fortunately for Delaware, quite a bit!

Battagliese's analysis focused on determining whether Delaware's statute, along with the feder-

al Oil Pollution Act (OPA) and Oil Spill Liability Trust Fund, were sufficient to protect the State's environment and natural resources.

The subject was very timely in the wake of BP's *Deepwater Horizon* oil spill, the largest marine spill in the history of the petroleum industry. Proposals to open the Mid-Atlantic coast to offshore drilling also acted as a catalyst for DNREC to evaluate Delaware's Oil Pollution Liability statute.

Based on Battagliese's extensive research, the analysis indicated that Delaware's statute and associated regulatory policies were not currently adequate for protecting Delaware from significant financial exposure in the event of a large or catastrophic release. Battagliese's analysis was used to craft new legislation to amend the State's Oil Pollution Liability statute.

Thanks to the productive partnership between DNREC and DENIN, Delaware's precious resources are better protected now and in the future.

Article by C. Wirtz, WHS



Shoreline cleanup following the 2004 Athos I spill (Photo, US Fish and Wildlife Service).

Downhome in Homestead



Growing up in Sussex County, you would have certainly heard of Homestead Campground. If you were really lucky, you might also have had the opportunity

to go camping there. Nestled in an agricultural area and neat as a pin, the park has approximately 40 acres of well-maintained sites for RVs and camping trailers.

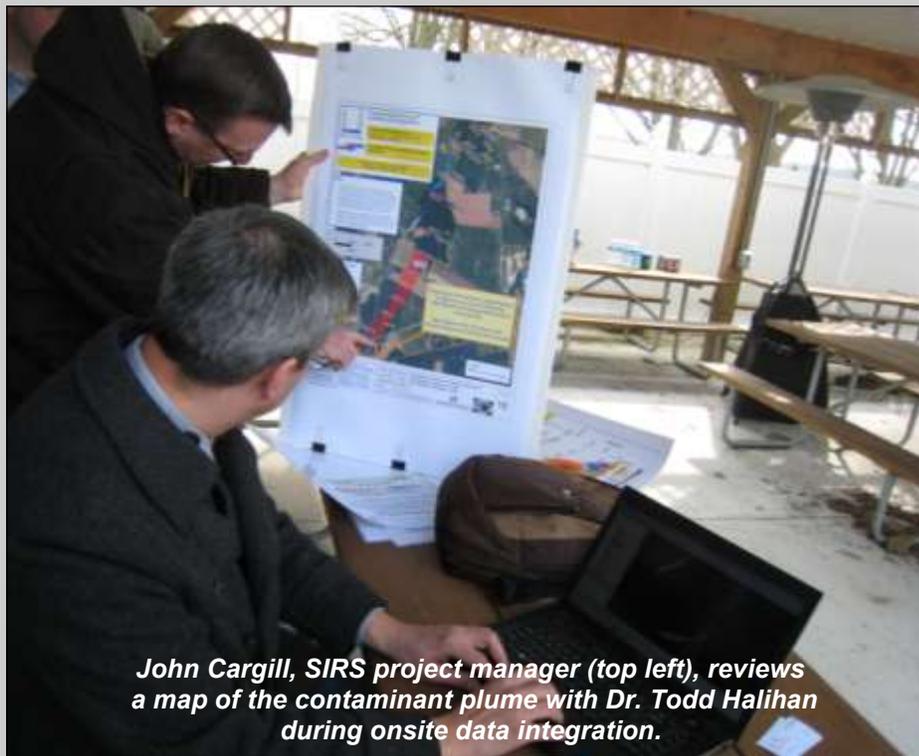
Strings of lights connect trailers and neighbors across festive patios, with fishing boats parked in a perfect line ready for summer fun. Located about seven miles west of Lewes and Cape Henlopen State Park, Homestead provides easy access to beautiful beaches, ample shopping and fine dining along the Delaware bay shore area.

What you might not have known is that in between the pull-through lots and sport-fishing

boats, are eight groundwater monitoring wells standing sentinel for a subsurface groundwater contaminant plume. These wells were installed in the last five years to help delineate the trichloroethylene (TCE) plume in the local groundwater.

The contaminant is a volatile organic compound that was discovered in the main drinking water well at Homestead right before their big Memorial Day holiday weekend in 2005. The emergency call came in late that Friday afternoon requiring all hands on deck at the Division of Public Health and DNREC's Site Investigation and Restoration Section (SIRS).

The call was just the start of a chain reaction of quick calls that went out to licensed well-drillers to install a new well ASAP, and the Air National Guard, to provide buffalo tanks for drinking water purposes while the supply well was off-line. The joint agency efforts paid off big dividends with a new drinking water supply well drilled to a deeper, clean, confined aquifer in record time!



John Cargill, SIRS project manager (top left), reviews a map of the contaminant plume with Dr. Todd Halihan during onsite data integration.

Shortly thereafter, the subsurface investigation began. How would a drinking water aquifer in a primarily agricultural area become contaminated with a chlorinated compound typically associated with manufacturing or industrial operations?

After several years, hundreds of groundwater samples, and multiple sampling and tracking events utilizing traditional approaches, only a portion of the groundwater contaminant plume has been defined.

SIRS is very close to determining the source of the

(Continued on page 5)

Homestead *Continued...*

TCE impact, but the downgradient contaminant depth (up to 130 feet below grade) is limiting the ability to collect groundwater samples in a cost-effective way. New technology was needed to help pinpoint potential locations for additional monitoring wells to define the full extent of the contaminant plume.

SIRS and its contractor, Black & Veatch, contemplated many options for determining the extent of the TCE impact beneath the Homestead Campground site. In the end, Dr. Todd Halihan, a professor at Oklahoma State University and CEO of Aestus, LLC was called in to complete a GeoTrax Survey™. Trax Survey™ is a 2-D and 3-D subsurface imaging technology that Dr. Halihan developed, based on subsurface electrical resistivity/conductivity, and proprietary data integration techniques similar to those used by doctors when doing MRIs and CAT scans.

Data collected from the GeoTrax Surveys™ generally correspond to subsurface geology and anomalies including buried tanks and contamination. This information, along with data collected across the site over the past eight years will be combined to develop a comprehensive conceptual site model that will drive future investigations.

Over 30 GeoTrax Survey™ lines were run over a three-week period in February 2013. Cooperation and communication with local farmers and residents were paramount in the successful completion of the field event. As such, SIRS, Black & Veatch and Aestus, LLC hosted a “show and tell” during the field event to display some of the preliminary results for the local farmers and property owners, as well as other DNREC staff. Dr. Halihan also conducted “real-time” interpretation of a portion of the data collected at the event (see photo p. 4).

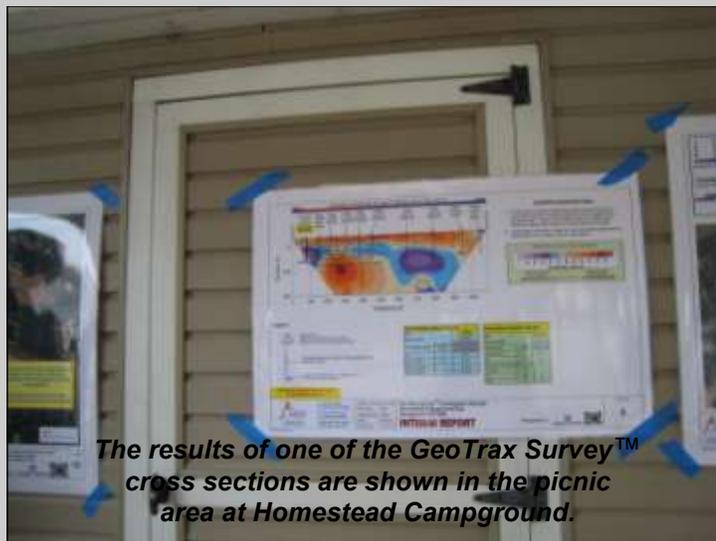
In the coming months, SIRS and Black & Veatch will collect additional field data to assist with the interpretation of identified resistivity/conductivity anomalies, which



Dr. Halihan reviews field operations for the GeoTrax Survey™ with Artie Pettyjohn, one of the farmers in the area.

will in turn enhance the understanding of geologic conditions beneath the area. Most importantly, this innovative technology will identify the flow path of contaminated groundwater, so DNREC can cost-effectively drill monitoring wells at exact locations and depths that will provide the best possible data. This will not only help delineate the contaminant plume, but will also assist in the evaluation of possible remedial alternatives to restore the groundwater resource downhome in Homestead.

Article by J. Cargill, SIRS and C. Wirtz, WHS



The results of one of the GeoTrax Survey™ cross sections are shown in the picnic area at Homestead Campground.

What is Plan EJ 2014?

February 2014 will mark two decades since President Clinton issued Executive Order 12898 entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. The Executive Order helps implement Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin in federal programs, and state programs that receive federal assistance.

Plan EJ 2014 is the US Environmental Protection Agency's (USEPA) way of setting their own house in order with respect to environmental justice (EJ). **It is not a rule or regulation, rather it is a strategy to help integrate EJ into the USEPA's day-to-day activities.**

The four-year plan was initiated in 2010 to involve all USEPA programs and regions, with stake-holder input and annual reporting requirements. Called a "roadmap," the plan will fully integrate EJ and civil rights into USEPA programs and policies by:

- Protecting the environment and health in overburdened communities.
- Empowering communities to take action to improve their health and environment.
- Establishing partnerships with local, state tribal and federal governments and organizations to achieve healthy and sustainable communities.

The focus for implementation of Plan EJ 2014 will be on three major sections:

- Cross-Agency Focus Areas;
- Tool Development; and
- Program Initiatives.

Cross-Agency Focus Areas includes all of the federal agencies—Department of Justice, Housing and Urban Development, Department of Transportation, etc.

The Cross-Agency Focus Areas are:

- Incorporating EJ into **rulemaking**;
- Considering EJ in **permitting**;
- Advancing EJ through **compliance and enforcement**;
- Supporting **community-based action programs**; and
- Fostering **Administration-wide action** on EJ and **interagency collaboration**.

The Tools Development Areas are:

- **Science**—apply research to address multimedia, cumulative impacts and equity in environmental health.
- **Law**—provide EJ legal assistance to all Plan EJ 2014 area and agency programs.
- **Information**—develop nationally consistent EJ screen and common geospatial platform
- **Resources**—improve transparency and efficiency in delivery of grants and technical assistance.

Program Initiatives entail identifying new and existing USEPA programmatic items that could benefit communities with EJ concerns (e.g., Air Toxics Rules, Pesticide Spray and Dust Drift Initiatives, the Community Engagement Initiative and even the US Mexico Border Program).

In 2014, the USEPA will assess its progress in achieving the goals of Plan EJ 2014 with respect to policies, tools and strategies for building healthy, sustainable and green communities in overburdened areas. The USEPA will generate a report based on the assessment to outline the accomplishments, lessons learned, challenges and next steps in continuing the USEPA's efforts in making EJ an integral part of every decision.

Plan EJ 2014 will help the USEPA better address the issues and environmental inequities facing many minority, low-income and indigenous people. For more information on Plan EJ 2014, please visit:

<http://www.epa.gov/environmentaljustice/plan-ej/>

TrashStoppers on Your DNREC YouTube Channel!



DNREC's TrashStoppers program to stop illegal trash dumping in Delaware thrives on violators convicting themselves on camera, breaking the law and possibly costing themselves thousands of dollars in fines.

Now, in a new DNREC video, the TrashStoppers program itself goes before the camera for an inside look at how this nationally-recognized program operates to thwart illegal dumping and do away with roadside dump sites in the state. The video on Your DNREC YouTube channel details

how the program has become a strong deterrent against trash dumping in Delaware.

TrashStoppers – working out of DNREC's Office of Community Services and within the Department's Environmental Crimes Unit – was an immediate success, and states as far away as Alaska have emulated its strategic use of surveillance cameras to reduce illegal trash dumping.

Since it was launched in 2010, the TrashStoppers program has resulted in some 100 arrests for illegal dumping in all three Delaware counties, while a website featuring photos of illegal dumpers taken by TrashStoppers cameras has generated still more leads for identifying and apprehending violators. For more information and to view the video, please visit the TrashStoppers website:

<http://www.dnrec.delaware.gov/ocs/Pages/TrashStoppers-history.aspx>

From DNREC Press Release 4/25/13

Did You Know?

The Underground Storage Tank (UST) Program was established in 1985 and protects Delaware's drinking water resources from leaks of chemicals, mostly petroleum products, from underground storage tanks. Here's some data about the UST Program:

- To date, the Tank Management Section (TMS) has identified almost 4,100 releases from USTs.
- Over 3,900 cleanups have been completed since 1985, with over 95% of all known leaking tanks cleaned up to date.
- An average of 50 new UST releases are identified every year.
- Since 2000, the TMS has completed over 85 state-funded UST removal/cleanup projects at a cost ranging from \$1,500 to \$1,000,000.
- There are over 444 regulated UST facilities and 4 UST facility compliance staff (or 111 facilities per staff person).
- 80% of UST facilities are determined in compliance with significant operational compliance requirements following an inspection.

For more information, please visit the TMS website:

<http://www.dnrec.delaware.gov/tanks/Pages/default.aspx>

Article by M. Crofts, WHS

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 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

Division of Air Quality
Division Director
Ali Mirzakhallili
Phone: 302-739-9402
Fax: 302-739-3106

ali.mirzakhallili@state.de.us

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

Visit us on the web!

www.dnrec.delaware.gov



The 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.

The 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.

The 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 - 302-739-9949

Division of Air Quality Director's Office - 302-739-9402

Division of Waste and Hazardous Substances Director's Office - 302-739-9400

Division of Water Director's Office - 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

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

Stormwater Permits - 302-739-9946

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