

# Conservation Committee Report

Volume 12 Issue 3

By Jack Walters, ACSL Conservation Chair

March 2010



## The Conservation Pledge

I give my pledge as an

American to save and faithfully defend from waste, the natural resources of my country; the soil, the water, the air, the minerals, the plant life and the wildlife.

This is my Pledge!

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## 259 Abandoned Oil and Gas Wells Plugged in 2009

Protects Public Health and Safety Repairs Damage from Past Unregulated Drilling

Environmental Protection Secretary John Hanger reported the department last year managed 14 project sites in nine counties that successfully plugged 259 abandoned oil and gas wells.

That work, he said, is important not only to protect the environment, but the public's safety, as well.

"Abandoned wells create passageways for pollution to enter and contaminate drinking water. They also can allow natural gas to enter water supplies or build

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## DCNR Removing Laurel Highlands Hiking Trail Bridge Over Turnpike

Deteriorating Span Closed After Inspection Uncovered Major Deficiencies

Department of Conservation and Natural Resources acting Secretary John Quigley announced that major structural deficiencies will force demolition of the Laurel Highlands Hiking Trail Bridge, which spans the Pennsylvania Turnpike near Somerset.

Built in 1970, the bridge was closed by DCNR to ensure safety of hikers and snowmobile riders using the bridge, as well as turnpike travelers passing beneath it after a Dec. 17 inspection cited dangerous conditions.

"Safety is our top priority in addressing a most unfortunate development that impacts so many outdoors enthusiasts in the Laurel Highlands," said Quigley.

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## 259 Abandoned Oil and Gas Wells Plugged in 2009

(continued)

up in a home, which can create a dangerous enclosed space,” Hanger said. “Modern regulations require that wells be cased properly during use and sealed once they are taken out of service, but unfortunately, there are thousands of wells that were simply abandoned before people understood the dangers.”

The 259 wells addressed in 2009 are located in the western and north-central regions of the state, and were discovered by department inspectors and local citizens who work collaboratively to locate and map wells in the region.

Many of the wells were leaking oil, acid mine drainage or natural gas.

Abandoned wells can be found in many settings from residential backyards to remote hillsides. Well-plugging costs can vary depending on terrain and the age and depth of the well. In most cases, once DEP receives landowner permission, work crews will clear a site and clean or remove the old well. After any old well casings are removed and the well bore is clear, the well is filled with grout or cement and other fill materials.

Pennsylvania has the highest number of abandoned wells in the Appalachian region and is one of the top five states nationally. The department has documented more than 8,600 wells throughout the state that were abandoned prior to passage of modern oil and gas drilling regulations.

Since the first commercial oil well was drilled in Pennsylvania in 1859, DEP estimates as many as 350,000 oil and gas wells have been drilled in the state, with many of those wells having been abandoned without proper plugging.

Funding for Pennsylvania’s Abandoned and Orphan Well Plugging Program comes from surcharges on well-drilling permits issued in Pennsylvania and from the Growing Greener program.

For more information, visit: [www.depweb.state.pa.us](http://www.depweb.state.pa.us).

Editor’s Note: Below is a list, by county, of the 14 abandoned well plugging contracts awarded in 2009:

### Allegheny County

Tarentum Borough: Stray Gas Migration Project -- \$9,546. Contractor: Carlucci Construction Co. Inc., Cheswick, Allegheny County.

### Erie County

Erie, Girard Borough, Millcreek and Northeast townships: 10 wells -- \$93,564.81. Contractor: S&T Service and Supply Inc., Pleasantville, Venango County.

### Fayette and Washington counties

Fallowfield Township and Belle Vernon: 3 wells -- \$161,512.50. Contractor: Hydrocarbon Well Services Inc., Buckhannon, W.Va.

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**259 Abandoned Oil and Gas Wells Plugged in 2009****(continued)**

## Forest County

Howe Township: 4 wells -- \$37,892. Contractor: S&T Service and Supply Inc., Pleasantville, Venango County.

## McKean County

Bradford Township: 23 wells -- \$103,678. Contractor: Phillips and Dart Oil Field Services Inc., Gifford, McKean County.

Eldred Township: 39 wells -- \$351,970. Contractor: James W. Day Contracting, Bolivar, N.Y.

Kane: 7 wells -- \$49,220. Contractor: Phillips and Dart Oil Field Services Inc., Gifford, McKean County.

Keating and Otto townships: 46 wells -- \$243,692. Contractor: James W. Day Contracting, Bolivar, N.Y.

Otto Township: 28 wells -- \$228,216.40. Contractor: ALCO Well Services Inc., Bradford, McKean County.

## Tioga County

Delmar Township: 1 well -- \$117,000. Contractor: Hydrocarbon Well Services Inc., Buckhannon, W.Va.

## Venango County

Cherry Tree and Oil Creek townships: 29 wells -- \$256,504. Contractor: S&T Service and Supply Inc., Pleasantville, Venango County.

Cornplanter Township: 64 wells -- \$554,776.26. Contractor: S&T Service and Supply Inc., Pleasantville, Venango County.

## Warren County

Warren: 4 wells -- \$19,760. Contractor: Hemlock Oil and Gas Co. Inc., Bradford, McKean County

## Westmoreland County

Upper Burrell Township: 1 well -- \$91,439. Contractor: Hydrocarbon Well Services Inc., Buckhannon, W.Va.

Source: PA DEP

**DCNR Removing Laurel Highlands Hiking Trail Bridge  
(continued)**

“We remain committed to working closely with the various groups who rely on the bridge, and trying to accommodate them to the best of our ability.”

DCNR already has conducted an emergency project that removed deteriorated bridge components. Presently, gates permitting bridge access are closed and temporary barricades have been erected to alert trail users to bridge conditions and its closure.

DCNR also is moving forward with design of a replacement structure that will reconnect various trail systems in the Laurel Highlands and facilitate proposed turnpike widening in the bridge area. The span is located just about midway between the Somerset and Donegal exits, and is owned by the Bureau of State Parks. No timeline has been established for removing the current bridge or building its replacement.

The new bridge will reconnect the Laurel Highlands Hiking Trail, a 70-mile corridor running north and south through state parklands and Forbes State Forest. Part of the Potomac Heritage National Scenic Trail, the Laurel Highlands Hiking Trail is a major regional recreational attraction, drawing 80,000 to 100,000 hikers and other visitors a year.

For more information, call Laurel Hill State Park Complex Manager Mike Mumau at (814) 445-7725.

Source: PA DCNR

## **DEP Restores 750 Acres of Dangerous Abandoned Mine Lands , Begins Construction on Two Major Mine Drainage Treatment Plants**

59 Projects Reclaim Communities, Improve Economic, Recreational Opportunities

Pennsylvania's mine reclamation program made dramatic progress in 2009 by reclaiming abandoned sites that threaten health and safety and restoring streams poisoned by mine drainage, according to Environmental Protection Secretary John Hanger.

Among the most significant achievements in the past year were contracts the department issued to reclaim nearly nine miles of dangerous highwalls and to break ground for a mine drainage treatment plant that will restore life to more than 35 miles of the West Branch Susquehanna River.

"Pennsylvania's mineral resources helped turn America into an industrial superpower, but the unregulated mining practices of the past have left us with the largest abandoned mine lands problem in the nation," Hanger said. "Through the tireless efforts of volunteers and the judicious use of our limited funding sources, we have made considerable progress in the past year reclaiming the most dangerous sites and restoring life to long-dead streams in former mining communities."

Pennsylvania has approximately 180,000 acres of abandoned mine lands, some dating back to the 1700s. More than two billion tons of waste coal sits in piles across the state and mine drainage is the largest source of water pollution in the state, degrading 5,500 miles of rivers and streams.

The largest source of funding for the reclamation of mine sites in Pennsylvania is the federal Abandoned Mine Lands Fund, which is overseen by the U. S. Office of Surface Mining. The fund is supported by a tax on the modern mining industry and is distributed to states as annual grants to reclaim mine sites that were abandoned prior to passage of the federal Surface Mining Control and Reclamation Act of 1977.

Governor Rendell was instrumental in working with Congress and other coal mining states to extend abandoned mine funds for another 15 years. Pennsylvania will receive nearly \$44 million from the fund in 2010 and is projected to receive a total of \$1.1 billion by 2022.

In Pennsylvania, the fund is administered by DEP's Bureau of Abandoned Mine Reclamation, which awarded 20 contracts worth more than \$21 million in 2009 to reclaim 630 acres of abandoned mine lands, reclaim 39,850 feet of dangerous highwalls, backfill mineshafts, demolish abandoned structures, and fill hazardous water bodies. Three projects will extend public water lines into communities where private wells and springs were polluted by mine drainage.

States were also authorized to set aside up to 30 percent of each annual grant to address acid mine discharges when Congress extended the abandoned mine fund. Pennsylvania is using this money to create a mine drainage trust fund to finance construction and long-term operation and maintenance costs for hundreds of necessary mine drainage treatment facilities statewide.

The department used those funds to break ground on mine drainage treatment systems in the headwaters of

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**DEP Restores 750 Acres of Dangerous Abandoned Mine Lands****(continued)**

the West Branch Susquehanna River in Cambria County and the Indian Creek in Fayette County. These systems will treat more than 10 million gallons of mine drainage each day, improving water quality in these long-dead streams, and creating recreational and economic opportunities for downstream communities.

Statewide, mine drainage treatment systems treat 40 billion gallons annually.

In 2009, the department also awarded 28 Growing Greener grants worth \$5.8 million to local watershed groups, conservation districts and other entities to address mine drainage projects that will address pollution and restore life to dead streams. Many of these projects are undertaken by volunteer organizations.

DEP's Bureau of District Mining Operations, which oversees active mining operations in the state, manages innovative programs to encourage modern coal companies to reopen abandoned mines that still contain mineable coal reserves and complete reclamation at no cost to the taxpayers. In 2009, 11 such mining contracts were awarded to reclaim 123.5 acres of abandoned mine lands and eliminate 6,950 feet of dangerous high-wall. The value of these projects to the commonwealth in 2009 was \$547,660.

District mining offices also used more than \$1.6 million in forfeited reclamation bonds to finance cleanup at five abandoned sites. These bonds are posted by mining companies to cover the cost of reclaiming mine sites if the company is unable or unwilling to complete site restoration once mining is finished.

For more information on these programs and other mine reclamation and mine drainage treatment efforts, visit [www.depweb.state.pa.us](http://www.depweb.state.pa.us).

Source: PA DEP

## EPA and Temple University Share Expertise at Electronics Recycling Conference for Colleges and Universities

The U.S. Environmental Protection Agency and Temple University's Computer Recycling Center (CRC) joined forces to share advice on electronics recycling with colleges and universities in the Greater Philadelphia area and beyond.

The joint event highlighted how on-campus electronics recycling can benefit the schools, students, local communities, reduce energy costs, conserve natural resources and reduce greenhouse gas emissions.

In response to the growing concerns over the hazards of disposing of computers and related electronic hardware, Temple University created the Computer Recycling Center (CRC) in 2003 to decrease the number of computers being disposed of in landfills. Since its inception, the Computer Recycling Center has recycled thousands of computers and other electronics. A tour of this award-winning facility was part of the day's agenda.

The CRC has pioneered a comprehensive life-cycle approach for electronics. Reducing environmental impacts is promoted by making every effort to reuse computers, monitors, printers, and other electronic equipment. University departments, students, faculty and staff are then given access to these computers at significantly reduced rates while other computers are donated to local schools and community organizations. Temple has about 14,000 computers in operation at any given time.

Many electronic devices contain lead, mercury, nickel, and cadmium, all of which can be harmful to the environment when disposed of improperly. Computers also contain valuable materials, which can be recovered and reused. "Americans dispose of an estimated 14 to 20 million computers annually and this number is going to keep on growing," said EPA Regional Administrator Shawn M. Garvin. "Temple University has a great recycling program and we think it is important for them to share their accomplishments with other colleges and universities, so hopefully they can mirror Temple's success."

When reuse is not feasible, recycling is practiced and computers are shipped to a nearby facility for re-manufacturing. CRC's practice of reuse and recycling has also helped to reduce energy consumption, conserve natural resources and prevent the emission of greenhouse gases.

Representatives from 13 colleges and universities attended the conference including: Drexel, Villanova, LaSalle, St. Joe's, Community College of Philadelphia and the University of the Arts from the Philadelphia area as well as other colleges from throughout the mid-Atlantic region.

CRC was awarded an Environmental Achievement Award by the mid-Atlantic region of EPA during September 2009, one of only 10 such awards presented to business, non-profit and governmental entities across Pennsylvania, Delaware, Maryland, Virginia and West Virginia and the District of Columbia.

For more information on Electronics recycling go to: [www.epa.gov/reg3wcmd/ecycling/index.htm](http://www.epa.gov/reg3wcmd/ecycling/index.htm).

For more information on Sustainability go to: [www.epa.gov/reg3wcmd/spp/index.html](http://www.epa.gov/reg3wcmd/spp/index.html).

Source: US EPA

## Governor Rendell Says Federal Recovery Act-Funded Rebates Will Make Energy-Efficient Home Heating Equipment More Affordable

Resource Solutions Group Chosen to Manage \$11 Million Program that Complements Rebates by Electric Utilities

Starting in April, funding from the American Recovery and Reinvestment Act will make it possible for tens of thousands of Pennsylvanians to reduce their energy consumption and save money through a new rebate program for home heating equipment, Governor Edward G. Rendell said today.

The \$11 million program will provide rebates of between \$100 and \$500 on the purchase of new, Energy Star-rated non-electric residential hot water heaters, furnaces and boilers. The higher the equipment's efficiency rating, the larger the rebate will be.

"Last fall, the U.S. Department of Energy asked all states to develop rebate programs for items that would help residents achieve the greatest energy savings," said Governor Rendell. "Because the average Pennsylvania household spends 44 percent of its energy budget on heating and cooling, offering these rebates will provide a real and lasting benefit for consumers."

Governor Rendell added that the rebate program could benefit 33,000 Pennsylvanians and could create 120 jobs by boosting demand for heating equipment and related installation work. It could also save more than 257 trillion British thermal units of energy.

Once finalized, the rebate program's guidelines and applications will be posted on [www.recovery.pa.gov](http://www.recovery.pa.gov).

The rebates complement existing or planned programs by Pennsylvania's electric utilities that are required under Act 129, which Governor Rendell signed in 2008 to help consumers save money through energy conservation.

"All regulated electric utility companies are now offering—or will soon—rebates on typical appliances like refrigerators and dishwashers," said Governor Rendell. "Because Pennsylvania has many older homes that use a variety of heating and cooling methods, offering rebates for non-electric heating equipment is another financial incentive that will ensure all Pennsylvanians will have the opportunity to upgrade their heating systems and achieve greater energy efficiency and financial savings, regardless of the type of fuel they use."

Through a competitive bid process, the Department of Environmental Protection selected Resource Solutions Group to manage the new rebate program along with its partners, Resources Development and Management Inc. of Pittsburgh and the Electric Gas Industries Association.

Resource Solutions Group is a woman-owned environmental consulting firm that specializes in helping organizations balance economic and strategic goals through awareness, action and energy sustainability, while protecting the environment. The company has managed similar energy-related rebate programs, such as the Chicagoland Natural Gas Savings Program.

Resources Development and Management Inc. operates the Municipal Authority of Westmoreland County and is a leading management consulting firm for public utilities and government agencies in Pennsylvania.

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**Federal Recovery Act-Funded Rebates Will Make Energy-Efficient Home Heating  
Equipment More Affordable**

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With 30 years of experience administering rebate programs, EGIA has implemented some of the nation's largest and most successful resource efficiency rebate programs and contractor training services.

"RSG and its partners have the expertise and the resources to put this financial incentive into the hands of energy-conscious citizens all across Pennsylvania," said Governor Rendell.

For more information, visit [www.depweb.state.pa.us](http://www.depweb.state.pa.us) and click on Energy Rebates.

Source: PA DEP

## Harrisburg's Peregrine Falcons Tell Story Via Social Media

Twitter, Online Video Stream Helping More Fans Worldwide Follow Mating Progress

Although the Peregrine falcons that have nested atop Harrisburg's Rachel Carson State Office Building for most of the past decade aren't known for "tweeting," fans of the pair will be able to follow their story this year on Twitter.

Use of the popular social networking site is in addition to the annual online video stream that went live today on the Department of Environmental Protection's Web site.

*Many fans questioned whether the pair would mate this year after the male was tardy in his return, but the allure of being with his partner this Valentine's Day proved too great, according to DEP's environmental education director Jack Farster.*

*"We were concerned that this year's nesting season might be in jeopardy when we had not seen the male Peregrine falcon at the nest in several weeks," said Farster. "Just in time for Valentine's Day, though, he returned to the nest on Feb. 4, so we're optimistic the pair will soon produce yet another round of offspring."*

Fans can follow the falcons' progress at [www.twitter.com/FalconChatter](http://www.twitter.com/FalconChatter), or by clicking on the Falcon Cam button on [www.depweb.state.pa.us](http://www.depweb.state.pa.us).

"Each year, people from around the world contact us with their stories and comments about the falcons," Farster said. "Now they will have an online forum to discuss their sightings, observations and thoughts about these Peregrines who are the world's fastest flying birds."

*This will be the sixth year this pair of falcons has nested at the Rachel Carson building. The female has laid eggs here since 2000 with two different males; the second arrived in Harrisburg in 2005 after the first male was discovered injured the previous year.*

For the last several years, the female falcon has produced a "clutch" of five eggs. She typically begins laying eggs during March. The eggs hatch around Mother's Day, and the young falcons begin to "fledge," or take their first flights around Father's Day.

While their numbers are increasing, Peregrine falcons remain an endangered species in Pennsylvania with 21 pairs having successfully bred in 2009. Around 1960, Peregrines disappeared from Pennsylvania due to the use of the insecticide DDT. Peregrines ingested the insecticide by eating contaminated prey, which caused them to lay eggs with thin and fragile shells that broke when the birds sat on them. DDT also caused changes in the falcon's hormonal cycles, which created breeding problems and physical illnesses that rendered them unable to hunt.

Nationally, the U.S. Fish and Wildlife Service removed the bird from its list of endangered and threatened species in 1999.

For more information, visit [www.depweb.state.pa.us](http://www.depweb.state.pa.us), keyword: Falcon.

Source: PA DEP

## National Research Council Lauds U.S. National Gas Hydrate R&D Effort

In a Congressionally mandated report released January 29, 2010, the National Research Council (NRC) concluded that the U.S. Department of Energy's methane hydrate program had been "consistent and effective" in leading a broad-based science and technology development program to investigate naturally occurring gas hydrates.

NRC's review of the program, which is administered by the National Energy Technology Laboratory (NETL) for the Office of Fossil Energy, compliments "the overall high caliber of the research, the breadth of investigations undertaken, the training of new, highly qualified personnel under the program's auspices, and the successful collaboration between federal agencies conducting research on methane hydrate." While research in several areas continues, the methane hydrate program has made advances in identification, drilling, and production of methane from hydrate for use as a possible energy source.

Methane hydrate, a naturally occurring solid form of methane and water, is found in Arctic permafrost areas and under the sea along most of the world's continental margins. Hydrate deposits are a potentially enormous and untapped source of methane, the primary component of natural gas. With the possibility of augmenting current supplies of natural gas, which provides approximately one fourth of all energy consumed in the United States, methane hydrate could boost U.S. energy security by providing an important energy source to accommodate future natural gas demand. NETL's promising research could lead to commercial production of methane from hydrate by 2025.

The NRC report particularly praised the overall quality of the methane hydrate program's research, stating that "research progress, the positive impact the program is having on raising the profile of and interest in methane hydrate as a potential energy resource, and the rate at which the program is moving toward the goal of achieving production of methane from methane hydrate accumulations are all commendable."

The methane hydrate program has revolved around investigating the fundamental science and technology required to assess and realize the potential for commercial development of methane from methane hydrate resources. New methods to remotely detect and characterize subsurface methane hydrate deposits have also been tested through the program's research. Future research will investigate the most appropriate production technologies, environmental consequences, safe extraction of the methane hydrate, and the expected volumes of recoverable methane.

NRC's report "Assessment of the Department of Energy's Methane Hydrate Research and Development Program: Evaluating Methane Hydrate as a Future Energy Resource" is available at [http://www.nap.edu/catalog.php?record\\_id=12831](http://www.nap.edu/catalog.php?record_id=12831), and a summary is available at [http://dels.nas.edu/dels/rpt\\_briefs/methane\\_hydrates\\_brief\\_final.pdf](http://dels.nas.edu/dels/rpt_briefs/methane_hydrates_brief_final.pdf).

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