

# Conservation Committee Report

Volume 13 Issue 11

Jack Walters—Conservation Chairman

November 2011



### 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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## EPA Works to Prevent Lead Poisoning in Children

The U.S. Environmental Protection Agency (EPA) is recognizing National Lead Poisoning Prevention Week (NLPPW), October 23-29, 2011 to raise awareness of lead poisoning in children. For children, even low levels of exposure to lead can cause a host of developmental effects such as learning disabilities, decreased intelligence and speech, language, and behavioral problems, which can affect children for a lifetime.

"Lead poisoning can have life-altering health effects, especially on our children. But it is entirely preventable if we take the right steps to protect our children in all the places where they live, learn and play," EPA Administrator Lisa P. Jackson said. "National Lead Poisoning Prevention Week gives us the opportunity to strengthen our awareness and prevention efforts and ensure parents have the tools they need to protect their children against lead exposure every day of the year."

Major sources of lead exposure among children are lead-based paint and lead-contaminated dust found in deteriorating buildings. Lead most commonly occurs in the environment as a result of improper repair or renovation of pre-1978 homes.. Despite the continued presence of lead in the environment, lead poisoning is entirely preventable.

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## Retired Coal-Fired Plant Sites Offer Good Reuse Potential

Many of the dozens of coal-fired power plants predicted to close in the coming decades present "tremendous" redevelopment opportunities, according

to a report by the American Clean Skies Foundation.

According to the report, "*Repurposing Legacy Power Plants: Lessons for the Future*", such brown-

fields redevelopment can include civic and private uses such as riverfront housing, retail shops, offices, museums (continued on page 2)

## EPA Works to Prevent Lead Poisoning in Children

(continued)

This year's NLPPW theme, Lead-Free Kids for a Healthy Future, underscores the importance of testing your home and your child, and getting the facts about how to prevent serious health effects.

Here are some simple things you can do to help protect your children:

Get your home tested. Have your home inspected if you live

in a home built before 1978.

Get your child tested. Even if your young children seem healthy, ask your doctor to test them for lead.

Get the facts. Visit <http://leadfreekids.org/>

or call 1-800-424-LEAD.



## Retired Coal-Fired Plant Sites Offer Good Reuse Potential (continued)

and parks. Coal industry analysts predict that 15 percent to 20 percent of the U. S. coal plants could be retired by 2020 because of their age, stricter federal environmental emissions regulations, and increased price competition from natural gas-fired generators.

The American Clean Skies Foundation is a nonprofit organization seeking to advance U.S. energy independence and a cleaner environment through expanded use of energy efficiency, clean technology and renewable energy. The report profiles eight projects that

would redevelop sites of retired power plants, and discusses costs, time frames and financing, community involvement and implications, and facility design and reuse. According to the report, there are various cost ranges for redeveloping old power plants.

Smaller projects can cost under \$10 million and mid-size projects can cost from \$40 million to \$80 million. Larger projects have a cost range of from \$150 million to \$180 million. The report suggests that the cost of redevelopment plus the site cleanup, the meeting of requirements for historic preservation and special issues all

add to the challenges and the time frame for completing a project.

**Estimated costs to redevelop old power plants vary widely: from under \$10 million to up to \$180 million**

Another challenge in brown-fields redevelopment is the up-front costs. According to the report, the end-use of the site, whether it is commercial, residential, industrial or recreational, determines the up-front costs and the extent of the required

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## Retired Coal-Fired Plant Sites Offer Good Reuse Potential (continued)

remediation and planning determines the initial up-front costs.

Local, state and federal assistance programs involving sustainable reuse projects may provide grants and loans. Other funding options include public financing. That can include interest-rate reductions, loan repayment grace periods, tax abatements and training and technical assistance.

One example of power plant redevelopment is cited in the

report as a possible model for such projects. That is the proposed plan to redevelop an Alexandria, Virginia power plant. The \$450 million proposal by the foundation would open a portion of the Potomac River to the public, develop more than 600 riverfront housing units and create more than 200,000 square feet of retail and office space. These would include an energy education center with clean fuel and electric vehicle recharging stations.

The report on redeveloping coal-fired power plants is available at:

[http://www.cleanskies.org/wp-content/uploads/2011/08/8\\_9\\_2011\\_RepurposingPowerPlants\\_Release.pdf](http://www.cleanskies.org/wp-content/uploads/2011/08/8_9_2011_RepurposingPowerPlants_Release.pdf)

Source: Joint Legislative Air and Water Pollution Control and Conservation Committee

## Saving Money, Staying Warm: Winter Energy Efficiency Tips from Energy Star

The average family spends \$2,200 a year on energy bills, nearly half of which goes to heating and cooling. With winter approaching and Americans heading indoors, the U.S. Environmental Protection Agency's (EPA) Energy Star program is offering easy energy saving tips that increase household efficiency while helping Americans save money and stay warm.

EPA recommends taking the following steps this winter:

**Maintain your heating equipment.** Dirt and neglect are the top causes of heating system failure. If your heating equipment is more than 10 years old, now is a good time to schedule a

pre-season checkup with a licensed contractor to make sure your system is operating at peak performance. Check your system's air filter every month and when it is dirty, change it. At a minimum, change it every three months.

**Use a programmable thermostat.** Control your home's temperature while you're away or asleep by using one of the pre-programmed settings. When used properly, programmable thermostats can save up to \$180 every year in energy costs.

**Seal air leaks in your home.** If rooms are too hot/cold or you have noticed humidity or excessive dust problems you should consider taking action to seal air leaks. Sealing air leaks with caulk, spray foam, or weather

stripping will have a significant impact on improving your comfort and reducing energy bills. If you are adding insulation to your home, be sure to seal air leaks first, to ensure you get the best performance from your insulation.

**Utilize the Energy Star website.** Use Energy Star's Home Energy Yardstick to compare your home's energy use to similar homes across the country and see how your home measures up. Energy Star's Home Energy Advisor can give recommendations for energy-saving home improvements for typical homes in your area.

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## Winter Energy Efficiency Tips from Energy Star (continued)

**Look for Energy Star qualified products.** Whether you are replacing light bulbs or appliances in your home, Energy Star qualified products can help you save energy and reduce energy bills. The label can be found on more than 60 types of products ranging from heating and cooling equipment to compact fluorescent light bulbs (CFLs).

Energy Star was introduced by EPA in 1992 as a market-based

partnership to reduce greenhouse gas emissions through energy-efficiency. Energy Star offers businesses and consumers energy-efficient solutions to decrease energy consumption, save money, and help protect the environment. More than 20,000 organizations are Energy Star partners, committed to improving energy-efficiency in homes, products, and businesses.

Information on cutting energy costs this winter:

<http://www.energystar.gov/heatingtips>

Information on other ways to save energy year round:

<http://www.energystar.gov/changetheworld>

Source: U.S. Environmental Protection Agency

## EPA Announces Schedule to Develop Natural Gas Wastewater Standards

*Announcement is part of administration's priority to ensure natural gas development continues safely and responsibly*

The U.S. Environmental Protection Agency (EPA) is announcing a schedule to develop standards for wastewater discharges produced by natural gas extraction from underground coalbed and shale formations. No comprehensive set of national standards exists at this time for the disposal of wastewater discharged from natural gas extraction activities, and over the coming months EPA will begin the process of developing a proposed standard with the input of

stakeholders – including industry and public health groups. Today's announcement is in line with the priorities identified in the president's Blueprint for a Secure Energy Future, and is consistent with the Secretary of Energy Advisory Board recommendations on steps to support the safe development of natural gas resources.

"The president has made clear that natural gas has a central role to play in our energy economy. That is why we are taking steps - in coordination with our federal partners and informed by the input of industry experts, states and public health organizations - to make sure the needs of our

energy future are met safely and responsibly," said EPA Administrator Lisa P. Jackson. "We can protect the health of American families and communities at the same time we ensure access to all of the important resources that make up our energy economy. The American people expect and deserve nothing less."

Recent technology and operational improvements in extracting natural gas resources, particularly shale gas, have increased gas drilling activities across the country. Production from shale formations has grown

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## EPA Announces Schedule to Develop Natural Gas Wastewater Standards (continued)

from a negligible amount just a few years ago to almost 15 percent of total U.S. natural gas production and this share is expected to triple in the coming decades. The sharp rise in domestic production has improved U.S. energy security and created jobs, and as with any resource the administration is committed to ensuring that we continue to leverage these resources safely and responsibly, including understanding any potential impact on water resources.

### Shale Gas Standards:

Currently, wastewater associated with shale gas extraction is prohibited from being directly discharged to waterways and other waters of the U.S. While some of the wastewater from shale gas extraction is reused or re-injected, a significant amount still requires disposal. As a result, some shale gas wastewater is transported to treatment plants, many of which are not

properly equipped to treat this type of wastewater. EPA will consider standards based on demonstrated, economically achievable technologies, for shale gas wastewater that must be met before going to a treatment facility.

### Coalbed Methane Standards:

Wastewater associated with coalbed methane extraction is not currently subject to national standards for being directly dis-

charged into waterways and for pre-treatment standards. Its regulation is left to individual states. For coalbed methane, EPA will be considering uniform national standards based on economically achievable technologies.

Information reviewed by EPA, including state supplied wastewater sampling data, have documented elevated levels of pollut-

ants entering surface waters as a result of inadequate treatment at facilities. To ensure that these wastewaters receive proper treatment and can be properly handled by treatment plants, EPA will gather data, consult with stakeholders, including ongoing consultation with industry, and solicit public comment on a proposed rule for coalbed methane in 2013 and a proposed rule for

shale gas in 2014.

The schedule for coalbed methane is shorter because EPA has already gathered extensive data and information in this area, EPA will take the additional time to gather comparable data on shale gas. In particular, EPA will be looking at the potential for cost-effective steps for pre-treatment of this wastewater

based on practices and technologies that are already available and being deployed or tested by industry to reduce pollutants in these discharges.

This announcement is part of the effluent guidelines program, which sets national standards for industrial wastewater discharges based on best available technolo-

gies that are economically achievable. EPA is required to publish a biennial outline of all industrial wastewater discharge rulemakings underway. EPA has issued national technology-based regulations for 57 industries since 1972. These regulations have prevented the discharge of more than 1.2 billion pounds of

toxic pollutants each year into US waters.

More information:

[http://water.epa.gov/lawsregs/laws\\_guidance/cwa/304m/](http://water.epa.gov/lawsregs/laws_guidance/cwa/304m/)

## EPA Develops New Planning Approach to Improve Water Quality in U.S. Cities

The U.S. Environmental Protection Agency (EPA) announced a commitment to using an integrated planning process to help local governments dealing with difficult financial conditions identify opportunities to achieve clean water by controlling and managing releases of wastewater and stormwater runoff more efficiently and cost effectively. The integrated planning process, outlined in a guidance memo to EPA's regional offices from EPA's Office of Water and Of-

can overflow, releasing untreated sewage into waterways, onto city streets or into the basements of homes. As the runoff flows over the land or impervious surfaces, including paved streets, parking lots, and building rooftops, it accumulates debris, chemicals, sediment and other pollutants. Overflows and stormwater can carry a variety of harmful pollutants, including bacteria, metals and nutrients that threaten communities' water quality and can contribute to disease outbreaks, beach and shellfish bed closings, flooding, and fishing or swimming advisories.

To better protect water quality, EPA will work with local governments to review the Clean Water Act requirements that each municipality must comply with and look for opportunities to improve the efficiency and

office of Enforcement and Compliance, will help municipalities prioritize infrastructure investments to address the most serious water quality issues and provide flexibility to use innovative, cost-effective stormwater and wastewater management solutions.

"EPA is firmly committed to helping local governments identify opportunities to achieve clean water using a comprehensive integrated planning approach," EPA Deputy Adminis-

trator Bob Perciasepe said. "An integrated approach allows communities to prioritize their investments to address the most serious water issues first and provides flexibility to use innovative, cost-effective storm- and wastewater management solutions – including green infrastructure."

effectiveness of solutions developed to meet those obligations. This integrated approach will identify efficiencies where more than one water quality issue can be addressed by the same solution and where competing requirements may exist, including how to best make capital investments and meet operation and maintenance requirements.

Integrated planning approaches can also have other benefits, like leading to the identification of innovative, sustainable solutions that improve water quality and enhance community vitality. Green infrastructure, such as green roofs, rain gardens, planter boxes, and permeable pavement, is an example of an integrated solution that can reduce, capture, and treat stormwater runoff at its source before it can reach the sewer system. Green infrastruc-

ture provides a cost effective way to reduce overflows and add green space in communities.

Read the EPA memorandum: <http://cfpub.epa.gov/npdes/integratedplans.cfm>

More information on green infrastructure: [http://cfpub.epa.gov/npdes/home.cfm?program\\_id=298](http://cfpub.epa.gov/npdes/home.cfm?program_id=298)

Source: U.S. Environmental Protection Agency (EPA)

# DEP to Issue Technical Guidance on Wastewater Treatment Permitting

The Department of Environmental Protection will soon offer new technical guidance designed to ensure compliance with updated wastewater treatment regulations.

The guidance explains revisions to Title 25 Chapter 95 of the Pennsylvania Code that require new or expanded sources of natural gas wastewater to treat the wastewater to the federal drinking water standard of less

ways, the department is now issuing this guidance to explain the regulations governing new and expanded sources of discharged wastewater.

The technical guidance document, to be published in the Nov. 12 Pennsylvania Bulletin, will assist DEP's permitting staff in implementing the new total dissolved solids effluent standard for discharges of treated natural gas wastewater. The revised Chapter 95 regulations ensure that drinking water, waterways, and watersheds in the state are not impacted by high levels of total dissolved solids. The most common total dissolved solids in Pennsylvania are chlorides and sulfates.

The guidance also clarifies that all facilities that accept shale gas extraction wastewater that has

than 500 milligrams per liter of total dissolved solids prior to discharge.

"This technical guidance is another step in this administration's continuing efforts to protect Pennsylvania's water resources," DEP Secretary Mike Krancer said. "This document clearly communicates to any facility seeking to increase its discharge of treated wastewater or to any facility seeking to start accepting wastewater that they must meet certain obligations."

not been fully pre-treated to meet the discharge requirements must develop and implement a radiation protection plan. Such facilities must also monitor for radium-226, radium-228, uranium and gross alpha radiation in their effluent.

The department will host web-based trainings in the coming weeks to explain the implementation of the guidance document to treatment plants and their customers.

DEP regulates the treatment and discharge of industrial wastewater in the state as part of its administration of the federal National Pollutant Discharge Elimination System (NPDES).

For more information, visit [www.dep.state.pa.us](http://www.dep.state.pa.us), keyword: TDS, or call 717-783-4693.

Krancer also said the guidance will ensure consistency in the department's decision making process in issuing these permits.

In April 2011, Krancer called on the natural gas industry to stop sending unconventional gas production wastewater to facilities that were permitted prior to revisions to the Chapter 95 regulations, which took effect in August 2010. The industry quickly complied. To ensure the continued protection of state water-

Source: PA Department of Environmental Protection

## EPA Releases Air Quality Model to Study Harmful Air Pollution

*Model will help scientists protect public health*

The U.S. Environmental Protection Agency (EPA) released a new version of its Community Multi-scale Air Quality model (CMAQ) that uses up-to-the-minute meteorology and air chemistry data to determine how weather conditions affect pollution, and how pollution can affect and change weather. Version 5.0 of CMAQ allows scien-

Air quality has a direct impact on people's health. EPA research has shown that air contaminated with common pollutants like ozone, acidic gases, and toxic components of particulate matter can aggravate asthma symptoms and put stress on cardiovascular systems. CMAQ 5.0 allows scientists to study air pollution at the local level and much larger scales. Version 5.0 has the capability to use data from other air quality models. This gives the system more flexibility to address new and increasingly complex air pollution issues, and incorporate input from a worldwide community of CMAQ users.

Earlier versions of CMAQ have been used for more than a decade by EPA and states for air quality management. CMAQ

tists to analyze air quality at smaller, finer-resolution settings for individual towns and cities, and model air quality for the entire northern hemisphere. Currently, scientists use CMAQ to estimate air quality levels at the regional and national scales.

“The ability to apply the CMAQ model to larger scales will allow scientists to better understand the ways that air pollution moves around the globe, and provide

uses meteorology and emissions data to evaluate air pollution trends and distribution. The system models multiple air pollutants, which include ozone, particulate matter, and air toxics to help air quality regulators determine the best air quality management scenarios for their communities, regions, and states. Also, the National Weather Service uses CMAQ to produce daily U.S. forecasts for ozone air quality.

More information on CMAQ:  
<http://www.epa.gov/AMD/CMAQ>

Source: U.S. Environmental Protection Agency

much-needed information for decision makers in protecting public health,” said Dr. Paul Anastas, Assistant Administrator for EPA's Office of Research and Development. “The model represents collaborative work among scientists in the fields of engineering, chemistry, mathematics, computer science, atmospheric science, and meteorology.”