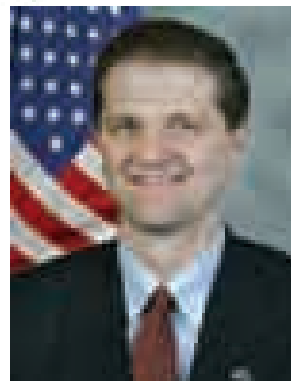


# ENVIRONMENTAL SYNOPSIS

## The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman



This month, I hope our readers will allow me to be more parochial than usual. But while engaging in some parochialism, the events I would like to speak about have affected the entire world and should be of interest to readers statewide and across the nation and the globe.

On August 27, 1859 Colonel Edwin L. Drake drilled the first successful commercial oil well, striking oil near Titusville, PA. It was an event that would transform the world. From Drake's humble start of 40 barrels of oil a day, came the petroleum industry and all the inventions and progress that oil has brought to our world. While we may gripe about the price of oil, it is an indispensable part of our world and has powered progress in fields as diverse as medicine to jet fuel, plastics to mascara and asphalt to Vaseline.

Those who have walked past my office in the Capitol may have seen signs about "Oil 150" in the office windows and wondered what they meant. Oil 150 is the public "face" of a 17 month celebration commemorating 2009's 150th anniversary of Colonel Drake's oil well discovery. Oil 150 is administered by the Oil Region Alliance of Business, Industry and Tourism (ORA), which also manages the Oil Region National Heritage Area. The Joint Legislative Air and Water Pollution Control and Conservation

Committee (Committee) played a significant role in helping the heritage area achieve its national designation.

I'm excited about Oil 150 because many of the celebration's activities have taken place and will take place in and around my legislative district in Northwest Pennsylvania.



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# NOTES FROM THE DIRECTOR

CRAIG D. BROOKS, EXECUTIVE DIRECTOR

The Environmental Protection Agency (EPA) announced the award of 11 grants totaling \$1.59 million under its brownfields program to support assessment, cleanup, and revitalization of brownfields sites. Each grantee will receive between \$100,000 and \$150,000 in annual funding for up to five years. The grant period runs from October 2008 to September 2013. According to the EPA, the new round of funding focuses on projects that will explore new and innovative ideas such as advancing sustainability of gardening and farming on brownfields, converting mine-scarred lands to production sites for renewable energy, and supporting green collar jobs through technical assistance to communities establishing brownfields programs.

Local marketing initiatives and agricultural activities in urban areas are increasing due to rising energy cost, demand for locally grown produce, and interest in sustainable practices. At this point, little is known about the impacts of contaminants on gardens, and food safety from urban and other types of local farming activities on brownfields.

EPA awards grants and cooperative agreements through the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) under a statutory ranking system that includes factors relating to community need, impact on human health and the environment, stimulation of leveraging of other funds, eligibility for funding from other sources and effective use of existing infrastructure.

Several grant awardees, including Kansas State University's Center for Hazardous Substance Research, Department of Agronomy and Department of Horticulture, Forestry and Recreation Resources will jointly explore the suitability of brownfields for gardening and farming. They will also develop educational materials about selection of appropriate crops for specific types of brownfields.

West Virginia University's Water Research Institute will receive a grant to inventory mine-scarred lands deemed suitable for redevelopment into sus-

tainable energy parks. The parks would become production sites for a "West Virginia Sustainable Energy Park".

The Sustainable Community Development Group, Inc., in cooperation with other organizations, plans to develop and implement the "Greening of Brownfields Program" with the goal of demonstrating how mayors can reuse idle properties in ways that address community issues. The focus will be on green design, building and technologies; energy conservation; recycling; and employment in green collar jobs.

The National Brownfield Associations Institute, with chapters in 21 states and provinces, anticipates expanding to all 50 U.S. states by 2012 and will use grant funds to develop a five-year comprehensive outreach campaign nationwide that will

educate stakeholders about sustainable development practices related to brownfields cleanup and reuse. The organization will also compile a State Resources Guide for each state as a clearinghouse of information.

A "Brownfields to Greenfields Program" will be implemented by the Hazardous Materials Training and Research Program in Iowa with an objective to provide community residents with education and information regarding sustainable, renewable and green practices. The program will also expand the "Brownfields Job Development Toolbox and Trainers Resource" website to provide instruction, networking and resource materials to other brownfields grantees.

Other awardees include the University of Illinois at Chicago's Institute for Environmental Science and Policy, Carnegie Mellon University's Western Pennsylvania Brownfields Center, and the Delta Redevelopment Institute.

More information on the brownfields grants is available at <http://www.epa.gov/brownfields/trta.htm#app>.

**What to do with brownfields sites is the focus of a recent round of EPA grant awards**

# RESEARCH BRIEFS

Each month, the committee's staff researches and prepares a number of "briefs" on several topics relevant to the Joint Conservation Committee's mission. Very often, these briefs include references to reports and further research on the topics so that readers may pursue issues on their own.

## GAO: Interior Should Encourage Faster Oil and Gas Drilling on Federal Lands

– Tony M. Guerrieri, Research Analyst

In 2007, domestic and foreign companies received over \$75 billion from the sale of oil and gas produced from federal lands and waters, according to the U.S. Department of the Interior, and these companies paid the federal government about \$10.5 billion in royalties for this oil and gas development. Interior's Minerals Management Service manages offshore leases, while its Bureau of Land Management manages onshore leases and leases in the National Petroleum Reserve in Alaska. Acquiring a federal lease gives the lessee the rights to explore for and develop the oil and gas resources under the lease. Development entails many tasks, including drilling wells and building pipelines that may lead to oil and gas production.

A report by the U.S. General Accountability Office (GAO) describes the Interior Department's efforts to encourage development of federal oil and gas leases and compares them to states' and private landowners' efforts. The report, "*Oil and Gas Leasing: Interior Could Do More to Encourage Diligent Development*", concludes that the government is not doing enough to expedite drilling in federal waters and on public lands. In addition, it suggests that the department does less to encourage development of federal oil and gas leases than some states and private landowners.

Federal oil and gas leases contain one provision – escalating rental rates – which may encourage development, the report said. For example, the rental rates for 10-year onshore federal leases increase from \$1.50 per acre per year for the first five years to \$2 per acre per year for the next five years. Compared to the Interior Department, eight states reviewed by the GAO undertook more efforts to encourage development on their oil and gas leases, using increasing rental rates as well as shorter lease terms and escalating royalty rates, the report said. Some states also do more than the department to structure

leases to reflect the likelihood of oil and gas production, which may encourage faster development, the GAO said.

While the Interior Department uses varying lengths for offshore leases, with deeper water receiving longer lease terms, this provision is not explicitly related to the expected productivity of the lease. On the other hand, five western states: Alaska, Louisiana, Montana, New Mexico and Texas, vary lease lengths or royalty rates to reflect the likelihood that the lease will produce.

Private landholders have also used various leasing methods, including lease terms as short as six months, to encourage faster development, the GAO said.

In a review of the 55,000 federal oil and gas leases issued to energy companies by the Interior Department from 1987 to 1996, the GAO report found that the vast majority expired without being drilled, and an even smaller amount actually produced oil and natural gas.

**According to the GAO report, the Interior Department needs to do more to expedite drilling in federal waters and on public lands**

According to one estimate, energy companies currently hold leases but are not producing on about 68 million acres of federal land – property that has the potential to increase domestic oil production and natural gas production.

The GAO found that current practices to expedite drilling, such as increasing the rent on federal lands not being drilled, did not do enough to spur production. Only about 26 percent of offshore leases and six percent of federal leases on land issued from 1987 to 1996 had been drilled by 2007. The percentage that produced oil and gas was even smaller – 12 percent offshore and five percent on land. Generally speaking, leases with shorter primary lease terms of five years were developed more quickly than leases with 10-year terms, the GAO said. Finally, for those

leases that eventually produced oil or gas, a substantial amount of the initial drilling activity, about 25 percent onshore, took place after the scheduled expiration of the lease, following a lease extension.

Energy company officials told GAO auditors that a number of factors influence their decisions to develop leased land, including oil and gas prices, the availability and cost of specialized equipment, geological features, and regulatory issues. In some areas, exploration and development are restricted to certain times of the year to preserve critical habitat or at-risk species.

The report recommends that the department consider measures used by states and private landowners to jump-start drilling, such as determining whether methods to differentiate between leases according to the likelihood of finding economic quantities of oil and gas could be effectively employed.

The GAO is the investigative arm of Congress, charged with evaluating and auditing government programs and activities. The GAO report, *"Oil and Gas Leasing: Interior Could Do More to Encourage Diligent Development"*, is available at: <http://www.gao.gov/new.items/d0974.pdf>.

## U.S. Firms See Benefits to Green Retrofits

– Craig D. Brooks, Executive Director

An increasing number of U.S. firms are making their buildings more environmentally sustainable to save money, improve productivity, reduce employee absenteeism and health care costs, strengthen employee retention and improve their company's green image, according to a recent independent survey. The survey found that 93 percent of respondents said that improving environmental sustainability also improved their ability to attract new talent. Similarly, 87 percent said workforce productivity improved and 73 percent reported savings from energy efficiency. The survey targeted organizations that have undergone at least one retrofit under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program.

Green retrofits offer several benefits including reductions in water and energy usage and costs, better tax credit opportunities, smoother permitting and other regulatory incentives, greater work productivity and satisfaction, improved brand image and better community relations. However, the study suggests that the competitive advantages associated with green retrofitting cannot last forever. Waiting for costs to come down before going green may be an attractive financial viewpoint, but as green building

becomes more common, the marketplace cost differences will become more difficult to achieve. According to the study, those who wait for the price of going green to decrease could find themselves with less of a competitive edge, with fewer tax advantages and other public incentives.

Further, companies forced into green retrofits by government mandates stand to lose many of the potential benefits available to companies that go green before such laws take effect. Often tax incentives, rebates and other financial perks exist for companies that undertake green retrofits of their own free will. The earlier a company adopts green building practices, the greater the benefits. The study suggests that companies that stay ahead of the green regulatory curve gain green building benefits, and remain competitive in the marketplace. The study also notes that LEED-certified buildings sell for an average of \$171 more per square foot than their conventional competitors.

**The study describes a number of workplace benefits that result from improved environmental sustainability and green retrofits**

The study also says that local and state governments are increasingly requiring energy efficient green building construction and renovations in the public and private sectors. By the second quarter of 2008, 28 states, 24 counties and 96 municipalities required some level of green criteria for new and renovated public buildings, according to the study. A majority of new and renovation construction is seeking LEED certification and is generally regarded as a standard for achieving Class A real estate. Class A real estate represents the highest quality office space from several perspectives, including location and building materials, the study says.

Going green is beginning to extend beyond the actual building site to the supply chain. Rising fuel costs are prompting companies to ask suppliers to become more energy efficient.

The U.S. Green Building Council (USGBC) is an independent agency founded in 1993 and headquartered in Washington, D.C. USGBC is a coalition of more than 12,000 professionals and organizations from the real estate industry, government, non-profit organizations and schools and universities. In 2000, USGBC launched its Leadership in Energy and Environmental Design (LEED) rating program which has four award levels that are based on the number of points that a green building earns. LEED has a

wide variety of building programs including new construction and major renovation, LEED Retail, LEED Schools and LEED for Healthcare.

The study, *"The Dollars and Sense of Green Retrofits"*, is available at <http://deloitte.com/dtt/article/0,1002,sid%253D2232%2526cid%253D213564,00.html>.

## Water Efficiency in Southeast is the Best Source of Water

– Tony M. Guerrieri, Research Analyst

The American Southeast is growing rapidly, bringing new people and new opportunities. While this growth has benefited the region and its residents, it also presents new challenges. Rapid population growth, excessive water consumption and years of drought have depleted the Southeast's natural water reserves and put the region at greater risk of a water crisis. Cities and communities throughout the region are rethinking their water strategies.

According to a report by the river conservation organization American Rivers, by using existing water efficiency technologies and adopting effective programs to conserve water the Southeast can save billions of gallons of water a year. The report, *"Hidden Reservoir: Why Water Efficiency is the Best Solution for the Southeast"*, suggests that a comprehensive set of water efficiency policies is the single best step the Southeast can take to ensure adequate water for the region and its environment.

**According to the report, dams cost 8,500 times more per gallon than water efficiency investments**

Conservation is a less expensive and more practical solution to the region's water problems than building dams to create new reservoirs. The report states that building dams and new reservoirs should be the last resort to solving water problems because they are expensive and lose more water to evaporation. Per gallon, dams cost up to 8,500 times more than water efficiency investments.

The report also projects the benefits of conservation for selected cities across the Southeast. For example, by conserving water, Atlanta could produce an additional 130 to 210 million gallons per day, representing 21 to 33 percent of the city's total consumption. Charlotte, North Carolina could save 47 million

gallons a day by conservation measures, enough to provide water for 135,000 to 205,240 new residents. Raleigh, North Carolina could save 40 percent of its water usage and save taxpayers more than \$60 million. Water conservation could save up to 27 million gallons a day in Columbia, South Carolina.

People, water utilities and state and local governments can all help mitigate the impacts of drought and water shortages. Implementing a combination of programs tailored to a community's needs is the most effective way of reducing water use. The report outlines nine key practices to reduce water waste:

- **Stop leaks:** Over six billion gallons of water are lost each day in the U.S. due to aging water distribution systems. Leaks should be fixed to stop this massive waste of water.
- **Price water right:** Water should be priced to cover costs, encourage efficiency and ensure access to clean drinking water.
- **Meter all water users:** Water meters should be installed in all new homes, multi-family apartment buildings, and businesses so water users can measure and monitor their consumption.
- **Retrofit all buildings:** If all U.S. households installed water-efficient fixtures and appliances, the country would save more than 8.2 billion gallons per day, enough water to supply all eight Southeastern states or 20 percent of total U.S. consumption.
- **Landscape to minimize water waste:** On average, U.S. homes consume 30 percent of their water outdoors – watering lawns, thirsty plants and trees. By installing more innovative and efficient irrigation systems and drought tolerant plants, communities would see 25 percent savings on outdoor water use.
- **Increase public understanding:** Communities should equip individuals with information about their own water use patterns, and educate the public about smart, simple water efficiency solutions.
- **Build smart for the future:** Homes, businesses and neighborhoods should be designed to capture and reuse stormwater, and to use gray water and rainwater for non-potable purposes. Building codes and ordinances should be updated to support or require the use of the most water efficient technologies.
- **Return water to the river:** To maintain healthy flows, a portion of water efficiency "savings" should be returned to the river to serve as a "savings account" for a not so rainy day.
- **Involve water users in decisions:** New opportunities for significant water savings can be found when all the stakeholders are at the table. Involving water users can increase efficiency.

The American Rivers report, *"Hidden Reservoir: Why Water Efficiency is the Best Solution for the Southeast"*, is available at: [http://www.americanrivers.org/site/DocServer/SE\\_Water\\_Efficiency\\_Oct\\_2008\\_opt.pdf?docID=8421](http://www.americanrivers.org/site/DocServer/SE_Water_Efficiency_Oct_2008_opt.pdf?docID=8421).

## Brownfields Redevelopment Has Strong Leveraging Impact

– Craig D. Brooks, Executive Director

The Environmental Protection Agency (EPA) defines a “brownfield” as a property whose expansion, redevelopment or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant. But every dollar of public money invested in brownfields leverages \$8 from other sources and every acre of redeveloped brownfields conserves about 4.5 acres of undeveloped lands, according to a recent draft report by the Northeast-Midwest Institute. Congress is likely to consider legislation in the next session that would increase the authorized funding for the brownfields program and create a new tax credit for spending on brownfields redevelopment. The report, funded by the EPA, analyzes the impact of both types of subsidies and reviews several years of literature and reports on brownfields redevelopment.

The Northeast-Midwest Institute is a Washington-based nonprofit research organization that promotes environmental and economic benefits for the region. The institute is currently seeking comments on the draft.

**For more about brownfields, see Notes From The Director on page 2**

Enough data and information on brownfields is now available to establish a position on brownfields investments. However, the data is insufficient to draw precise conclusions, the report says. Clearly most sites, possibly as much as 80 percent, require some level of public subsidy in order to proceed to successful redevelopment. While progress has been made, the report suggests that the current pace is, at best, addressing approximately 1.4 percent of the inventory annually. Further adding to the task is the fact that an unknown number of new sites are added to the inventory each time a manufacturing facility, gas station or dry cleaning establishment is closed and becomes a vacant site.

The report summarizes the impacts of brown-

## In Memoriam...

The members and staff of the Joint Legislative Air and Water Pollution Control and Conservation Committee (Committee) note with sorrow the death of a former Committee member, the late Sen. James J. Rhoades of the 29th Senatorial District. Sen. Rhoades was an active and valued member of the Committee from 1981-1988. We are saddened by his untimely passing and offer condolences to his family.

fields redevelopment in terms of environmental, economic, community and fiscal effects and makes several projections on the impacts of new federal investments in brownfields. Among the environmental benefits, the report suggests that brownfields redevelopment reduces air emissions and greenhouse gases, improves water quality through reduced runoff and generally accommodates growth in an environmentally responsible manner.

The report projects a doubling of the current EPA appropriation level of \$165 million annually projected over a 20 year time frame. This would leverage more than an estimated 600,000 jobs and nearly \$80 billion in new investments. It would also accommodate a population of more than 89,000 households in existing developed areas and conserve 67,000 acres of undeveloped land, according to the report.

A proposed \$1 billion federal annual tax credit projected over a 20 year period is estimated to leverage 3.65 million jobs and \$480 billion in new investments. It would accommodate 541,000 households in existing developed areas and conserve more than 400,000 acres of undeveloped land.

The last authorization for the brownfields program expired in September 2006. Congress had authorized \$250 million per year for the program, although less than that has been appropriated each year. Program appropriations have continued on an annual basis.

Between 450,000 and 1 million brownfields sites remain nationwide, with cleanup and site preparation costs cited as the biggest barriers to reuse.

The report, “*The Environmental and Economic Impacts of Brownfields Redevelopment*”, is available at <http://www.nemw.org/EnviroEconImpactsB-FRedev.pdf>.

## News to Use in the Environmental Synopsis... share it with a friend

The *Environmental Synopsis* is issued monthly.

The newsletter examines timely issues concerning environmental protection and natural resources.

If someone you know would like to receive a copy of the *Synopsis* each month, please contact the Committee office at 717-787-7570.



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# ON THE HORIZON . . .

A LOOK AT UPCOMING EVENTS

There are no events scheduled at this time. Check our website at <http://jcc.legis.state.pa.us> for additions to the schedule.

# COMMITTEE CHRONICLES . . .

REVIEW OF SOME MEMORABLE COMMITTEE EVENTS

The dedication of the Titusville Community Gateway has been one of many events that are part of the celebration of Oil 150, as described in the Chairman's Corner article. Pictured below are some scenes from the event.

*In the photo at right, a large group of federal, state and local government officials, as well as local sponsors, organizers and participants in Oil 150, ready to cut the ribbon officially dedicating the Titusville Community Gateway site.*



*At right, Joint Legislative Air and Water Pollution Control and Conservation Committee (Committee) Chairman Rep. Scott Hutchinson addresses the crowd who attended the dedication.*



*At left, U. S. Congressman John Peterson (left) and Rep. Hutchinson (right) flank an image of Colonel Edwin L. Drake, the discoverer of oil and driller of the first commercial oil well.*

The celebration is a unique opportunity for Pennsylvanians from other parts of the state to visit the area and learn about Pennsylvania's pivotal role in building the oil industry. But even more exciting, it opens the doors to visitors from across the nation and around the world to do the same.

Events that are part of the observance have already begun. In June, the House and Senate adopted resolutions that I and Sen. Mary Jo White introduced recognizing the month of August 2008 as "Oil Heritage Month" in Pennsylvania. On August 1, 2008 I took part in a press conference at the Drake Well Museum marking the official opening of the Oil 150 celebration. I stated at that time, "Nothing more important than this happened in August 1859."

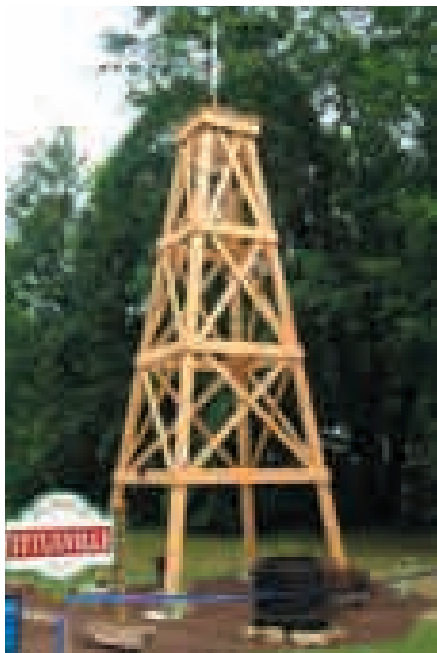
Since that time, much more has happened and continues to happen. The Committee sponsored a free public round table panel discussion entitled "The Relevance of Petroleum History in the Modern World" at the University of Pittsburgh's Titusville campus. On August 27, the ORA sponsored a dedication ceremony to celebrate the completion of the "Titusville Community Gateway", which features a 32-foot wooden oil derrick replica with an Oil 150 flag flying from the top (see accompanying photo). Other photos on page seven also show some of the events of the day.

On September 8, the Franklin City Council (Venango County) approved Oil 150's request to install a new Pennsylvania state historical marker in the city's historic district. The new marker, approved earlier this year by the Pennsylvania Historical and Museum Commission, honors oil pioneer Samuel C. T. Dodd, a native of Franklin. Dodd was general counsel for Standard Oil and in 1882 authored the Standard Oil Trust, a document that helped propel the company to industry prominence.

Perhaps most important there is much more to come. A new biography of Edwin Drake is slated to be released in spring 2009. It is authored by Dr. William R. Brice, a retired geology professor with the University of Pittsburgh at Johnstown.

**To learn more about the Oil 150 celebration, visit [www.oil150.com](http://www.oil150.com)**

In addition, the Oil Region will host a number of major conferences and symposia in 2009, including the PA Outdoor Writers Association spring convention, the 11th annual Victorian Architecture and its Preservation Conference, the Petroleum History Institute's Annual Symposium and Field Trip, the American Oil and Gas Historical Society's 2009 Energy Education Conference and Field Trip and others. Of particular interest will be the symposium entitled "The Philanthropic Legacy of the Oil Pioneers", scheduled for November 18-19, 2009 at Pitt's Titusville campus.



Oil 150 plans to incorporate a distinguished group of public speakers, art and music, a variety of exhibits, classroom materials and more with its conferences and symposia. Plan a visit to the Drake Well Museum and take in many of these activities.

The easiest way to learn more about the Oil 150 events is to visit the organization's website at [www.oil150.com](http://www.oil150.com). It's a Pennsylvania celebration with national and international significance. I hope you take the time to be a part of it.

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