Allegheny County Sportsmen's League

Conservation Committee Report

Volume 13 Issue 1 January 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!

Inside this issue:

Third Report on Southwestern PA Underground Mine Subsidence Shows Impacts on Property, Water Need for Insurance

Industry Improvements Helping to Minimize Damage Greatest Impact to Land, Structures Found in Greene, Washington Counties

A new report from the Department of Environmental Protection and the University of Pittsburgh shows that while underground mine subsidence continues to cause damage to aboveground property and water supplies, industry improvements have helped to lessen that impact in many areas.

The report, mandated by Act 54 of 1994, addresses the effects of mining in southwestern Pennsylvania's Armstrong, Beaver, Cambria, Clearfield, Elk, Greene, Indiana, Jefferson, Somerset and Washington counties from August 2003 through August 2008.

Act 54 requires such a report be prepared every five years. The two previous Act 54 reports covered 1993 through 2003.

"Mining has been—and will continue to be for the foreseeable future—a part of our economy and way of life," said DEP Secretary John Hanger. "Unfortunately, mine subsidence is often associated with the industry's activities. While coal companies have made advances to reduce underground mining's impact on the surface, this report gives us a chance to better understand how those incidents occur, where they're occurring, and how we can prevent them or address them more timely."

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EPA Announces Action in Response to Drinking Water Study

The Environmental Protection Agency responded to the results of a study by the Environmental Working Group that showed chromium-6 was detected in selected drinking water supplies across the country. A total of 35 locations were tested. Pittsburgh and Villanova were among 31 that tested positive for chromium-6. EPA Administrator Lisa P. Jackson met with 10 U.S. Senators, including Bob

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Third Report on Southwestern PA Underground Mine Subsidence (continued)

Hanger said the report details the number of structures, water supplies and streams undermined during the five-year assessment period. It provides an overview of the type and severity of any damages to surface structures and surface features, as well as information on how long it took to resolve those issues. The report also describes and assesses the effectiveness of mitigation measures designed to minimize structural damages and damages to water resources.

According to the report, there were 50 underground coal mines active during the reporting period beneath 38,256 acres of land. In total, there were 1,247 different "effects," or incidents reported to DEP during this most recent five-year period by its staff, coal companies or land owners.

Eight longwall mines in Greene and Washington counties accounted for nearly 94 percent of the incidents involving structures and 89 percent of the impacts to land.

The total number of incidents reported represents a 14 percent increase over the 1998-2003 period. DEP is combing through the reports to determine what, if anything, accounts for the increase and to identify trends that can be used in designing the next five-year assessment.

Other findings of the report include:

Of the 3,735 structures inventoried in the target counties, 456 (12 percent) were impacted by mining, while 108 of the 3,587 properties (3 percent) inventoried were impacted;

Nearly 2,800 wells, springs and ponds were undermined with 683, or 24.5 percent, reporting some impact. At the end of the assessment period, 449 of those cases had been resolved.

The average number to resolve impacts to structures, land and water supplies was 207 days, 246 days and 321 days, respectively

Act 54 held deep mine operators legally responsible for surface damages caused by their mining operations for the first time in Pennsylvania's history. Underground coal mines that operated prior to 1994 did not have a legal obligation to protect or restore surface structures or water supplies.

Secretary Hanger noted that while the report illustrates the subsidence potential for active mines, abandoned mines also pose a danger, so it is important for those owning property above abandoned underground mines to insure themselves and their belongings against subsidence-related damage.

"We estimate that there are more than 1 million homes sitting atop abandoned mines, yet many are not insured against catastrophic property losses if these mines should collapse," said Hanger. "That's why Pennsylvania has made Mine Subsidence Insurance more affordable, so people can insure more property for less."

Under Governor Edward G. Rendell, Pennsylvania has reduced policy rates for mine subsidence insurance by 20 percent. A policyholder can now insure 56 percent more in terms of property values by only paying 24 percent more in premiums.

Currently, there are 58,000 Mine Subsidence Insurance policies that cover $8.7 billion in property. In 2002, there were only 53,000 policies covering $5.1 billion in property value.

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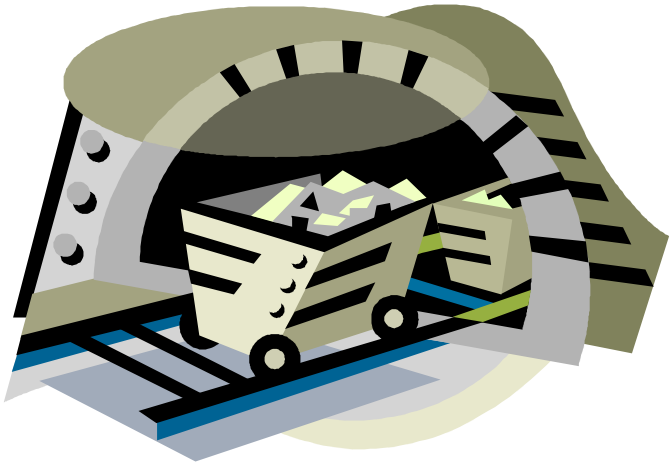
Third Report on Southwestern PA Underground Mine Subsidence (continued)

To learn more about Act 54 or Mine Subsidence Insurance, visit **www.depweb.state.pa.us**.

Source: PA Department of Environmental Protection



EPA Announces Action in Response to Drinking Water Study (Continued)

Casey of Pennsylvania, to brief them on the issue. The following is her statement regarding that meeting:

"Yesterday, I briefed members of the Senate on chromium-6 in drinking water supplies as it relates to the recent Environmental Working Group report. EPA has already been working to review and incorporate the groundbreaking science referenced in this report. However, as a mother and the head of EPA, I am still concerned about the prevalence of chromium-6 in our drinking water.

Today, I am announcing a series of actions that the EPA will take over the coming days to address chromium-6 in our drinking water. It is clear that the first step is to understand the prevalence of this problem. While the EWG study was informative, it only provided a snapshot in time.

EPA will work with local and state officials to get a better picture of exactly how widespread this problem is. In the meantime, EPA will issue guidance to all water systems in the country to help them develop monitoring and sampling programs specifically for chromium-6. We will also offer significant technical assistance to the communities cited in the EWG report with the highest levels of chromium-6 to help ensure they quickly develop an effective chromium-6 specific monitoring program.

The science behind chromium-6 is evolving. EPA is already on a path toward identifying and addressing any potential health threats from excessive, long-term exposure with its new draft assessment released this past fall. This assessment still needs to be reviewed by independent scientists as an essential step toward tightening drinking water standards for chromium-6. Strong science and the law will continue to be the backbone of our

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EPA Announces Action in Response to Drinking Water Study (Continued)

decision-making at EPA. EPA takes this matter seriously and we will continue to do all that we can, using good science and the law, to protect people's health and our environment."

Meeting Readout:

In yesterday's meeting with the 10 U.S. senators, Administrator Jackson described EPA's current chromium-6 risk assessment, which is a review EPA immediately started in response to new science in 2008 showing a link between chromium-6 ingestion and cancer. This risk assessment – which would be the first step to updating the drinking water regulations – will be finalized after an independent scientific peer review in 2011. Administrator Jackson told the senators that based on the draft risk assessment, EPA will likely revise drinking water regulations to account for this new science. These revisions would only take place after an independent science panel has verified the underlying science.

Administrator Jackson told the senators that EPA currently requires testing for total chromium which includes chromium-6. She noted that the testing does not distinguish what percentage of the total chromium is chromium-6 versus chromium-3, so EPA's regulation assumes that the sample is 100 percent chromium-6. This means the current chromium-6 standard has been as protective and precautionary as the science of that time allowed.

Administrator Jackson told the senators that according to the most recent data, all public water facilities are in compliance with the existing total chromium standards, but she agrees that chromium-6 is a contaminant of concern. She also told the senators that people can have their water tested and install home treatment devices certified to remove chromium-6 if they are concerned about the levels of chromium-6 in their drinking water.

The administrator concluded the briefing by making the following points and commitments:

1) While provocative, the EWG report is a self-described "snapshot" in time and does not provide a full, long-term picture of the prevalence of chromium-6 in our drinking water. EPA will work with state and local officials to better determine how wide-spread and prevalent this contaminant is.

2) Meanwhile, EPA will issue guidance to all water systems on how to test for and sample drinking water specifically for chromium-6. This guidance will provide EPA-approved methods and other technical information.

3) EPA will also offer technical expertise and assistance to the communities cited in the EWG study with the highest levels of chromium. This assistance will include providing technical experts to work with water system operators and engineers to ensure the latest testing and monitoring is being utilized.

4) Once EPA's chromium-6 risk assessment is finalized, EPA will work quickly to determine if new standards need to be set. Based on the current draft assessment, which has yet to undergo scientific peer review, it is likely that EPA will tighten drinking water standards to address the health risks posed by chromium-6.

More information on chromium: http://water.epa.gov/drink/contaminants/basicinformation/chromium.cfm

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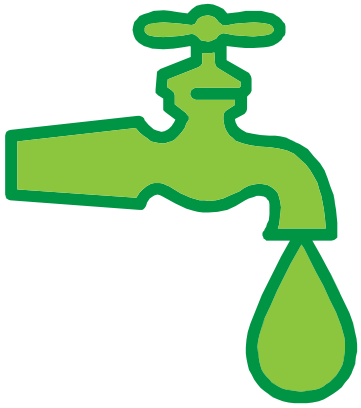
EPA Announces Action in Response to Drinking Water Study (Continued)

To track the status of the ongoing risk assessment: http://cfpub.epa.gov/ncea/iristrac/index.cfm?fuseaction=viewChemical.showChemical&sw_id=1107

Source: U.S. Environmental Protection Agency



EPA Improves Guidance for Compact Fluorescent Light Bulbs Cleanup

The U.S. Environmental Protection Agency (EPA) today updated its guidance on how to properly clean up a broken compact fluorescent lamp (CFL). Included with the guidance is a new consumer brochure with CFL recycling and cleanup tips. EPA encourages Americans to use CFLs for residential lighting to save energy and prevent greenhouse gas emissions that lead to global climate change.

CFLs contain a small amount of mercury sealed within the glass tubing. When a CFL breaks, some of the mercury is released as vapor and may pose potential health risks. The guidance and brochure will provide simple, user friendly directions to help prevent and reduce exposure to people from mercury pollution.

More information on the clean up guidance: http://www.epa.gov/cflcleanup

More information on CFLs:

www.epa.gov/cfl

Note: If a link above doesn't work, please copy and paste the URL into a browser.

Source: U.S. Environmental Protection Agency

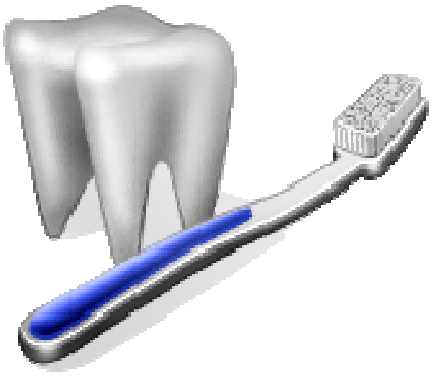
EPA and HHS Announce New Scientific Assessments and Actions on Fluoride

Agencies working together to maintain benefits of preventing tooth decay while preventing excessive exposure

The U.S. Department of Health and Human Services (HHS) and the U.S. Environmental Protection Agency (EPA) today are announcing important steps to ensure that standards and guidelines on fluoride in drinking water continue to provide the maximum protection to the American people to support good dental health, especially in children. HHS is proposing that the recommended level of fluoride in drinking water can be set at the lowest end of the current optimal range to prevent tooth decay, and EPA is initiating review of the maximum amount of fluoride allowed in drinking water.

These actions will maximize the health benefits of water fluoridation, an important tool in the prevention of tooth decay while reducing the possibility of children receiving too much fluoride. The Centers for Disease Control and Prevention named the fluoridation of drinking water one of the 10 great public health achievements of the 20th century.

"One of water fluoridation's biggest advantages is that it benefits all residents of a community—at home, work, school, or play," said HHS Assistant Secretary for Health Howard K. Koh, MD, MPH. "Today's announcement is part of our ongoing support of appropriate fluoridation for community water systems, and its effectiveness in preventing tooth decay throughout one's lifetime."



"Today both HHS and EPA are making announcements on fluoride based on the most up to date scientific data," said EPA Assistant Administrator for the Office of Water Peter Silva. "EPA's new analysis will help us make sure that people benefit from tooth decay prevention while at the same time avoiding the unwanted health effects from too much fluoride."

HHS and EPA reached an understanding of the latest science on fluoride and its effect on tooth decay prevention, and the development of dental fluorosis that may occur with excess fluoride consumption during the tooth forming years, age 8 and younger. Dental fluorosis in the United States appears mostly in the very mild or mild form – as barely visible lacy white markings or spots on the enamel. The severe form of dental fluorosis, with staining and pitting of the tooth surface, is rare in the United States.

There are several reasons for the changes seen over time, including that Americans have access to more sources of fluoride than they did when water fluoridation was first introduced in the United States in the 1940s. Water is now one of several sources of fluoride. Other common sources include dental products such as toothpaste and mouth rinses, prescription fluoride supplements, and fluoride applied by dental professionals. Water fluoridation and fluoride toothpaste are largely responsible for the significant decline in tooth decay in the U.S. over the past several decades.

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EPA and HHS Announce New Scientific Assessments and Actions on Fluoride (continued)

HHS' proposed recommendation of 0.7 milligrams of fluoride per liter of water replaces the current recommended range of 0.7 to 1.2 milligrams. This updated recommendation is based on recent EPA and HHS scientific assessments to balance the benefits of preventing tooth decay while limiting any unwanted health effects. These scientific assessments will also guide EPA in making a determination of whether to lower the maximum amount of fluoride allowed in drinking water, which is set to prevent adverse health effects.

The new EPA assessments of fluoride were undertaken in response to findings of the National Academies of Science (NAS). At EPA's request, NAS reviewed new data on fluoride in 2006 and issued a report recommending that EPA update its health and exposure assessments to take into account bone and dental effects and to consider all sources of fluoride. In addition to EPA's new assessments and the NAS report, HHS also considered current levels of tooth decay and dental fluorosis and fluid consumption across the United States.

Comments regarding the EPA documents, Fluoride: Dose-Response Analysis For Non-cancer Effects and Fluoride: Exposure and Relative Source Contribution Analysis should be sent to EPA at FluorideScience@epa.gov. The documents can be found at http://water.epa.gov/action/advisories/drinking/fluoride_index.cfm

The notice of the proposed recommendation will be published in the Federal Register soon and HHS will accept comments from the public and stakeholders on the proposed recommendation for 30 days at CWFcomments@cdc.gov. HHS is expecting to publish final guidance for community water fluoridation by spring 2011. You may view a prepublication version of the proposed recommendation at: http://www.hhs.gov/news/press/2011pres/01/pre_pub_frn_fluoride.html.

More information about the national drinking water regulations for fluoride: http://water.epa.gov/drink/contaminants/basicinformation/fluoride.cfm

Q&A's on latest EPA actions on fluoride: http://water.epa.gov/lawsregs/rulesregs/regulatingcontaminants/sixyearreview/upload/2011_Fluoride_QuestionsAnswers.pdf

More information on EPA's fluoride assessment and to comment: http://water.epa.gov/action/advisories/drinking/fluoride_index.cfm

More information about community water fluoridation, information on tooth decay prevention and dental fluorosis: http://www.cdc.gov/fluoridation.

Source: U.S. Environmental Protection Agency

DOE Supported Coal Cleaning Technology Succeeds in Commercial Demonstration

Novel Centrifuge Paves Way to Recover Tons of Waste Coal for Energy Use

A novel technology that could help release some of the currently unusable energy in an estimated 2 billion tons of U.S. coal waste has been successfully demonstrated by a Department of Energy (DOE) supported project.

The full-scale test of the advanced hyperbaric centrifuge technology at a Jim Walter Resources Inc. coal-cleaning plant in Alabama resulted in the successful reduction of moisture from ultrafine coal waste. The test builds on an eight-year cooperative effort between the Office of Fossil Energy's (FE) National Energy Technology Laboratory (NETL) and the Virginia Polytechnic Institute and State University (Virginia Tech) to use the patented process to effectively remove water from very fine coal "slurries," or mixture of waste coal "fines" and water.

U.S. coal producers each year discard large amounts of moisture-laden fines (small, coarse coal particles) that are typically deposited in containment ponds or impoundments as a slurry. In some cases the water is evaporated to stabilize the deposits before they are recovered in surface reclamation; in others, the waste coal – which represents a potentially useful energy resource – is not recovered for a variety of technological, operational, market, or other reasons.

The unique hyperbaric centrifuge technology is aimed at separating the fine coal particles from water, allowing their recovery for energy while simultaneously cleaning up the environment and providing jobs in the coal cleaning industry. The technology represents a major step forward in clean coal separation and could pave the way not only for the use of billions of tons of waste, but also the 70 million to 90 million tons of fine coal refuse added to slurry impoundments by the U.S. coal industry each year.

As a result of support by NETL through FE's Hydrogen and Fuels Program, researchers at Virginia Tech developed and patented the hyperbaric centrifuge, as well as other related technologies. Virginia Tech's Center for Advanced Separation Technologies (CAST) successfully tested its prototype technology at a variety of coal-cleaning plants.

Virginia Tech subsequently sublicensed the technology to Decanter Machine Inc., of Johnson City, Tenn., which built the initial prototype unit that successfully dewatered fine coal to a level of 13 to 19 percent moisture at a rate of 30 gallons per minute. Coal recovery from the sludge was greater than 97 percent.

Decanter Machine then constructed a full-scale commercial unit capable of handling 600 gallons of slurry per minute. Jim Walter Resources successfully tested the full-scale commercial unit at the greater rate, again dewatering the ultrafine coal to less than 20 percent moisture by applying a combination of air pressure and centrifugal force to significantly reduce moisture.

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DOE Supported Coal Cleaning Technology Succeeds in Commercial Demonstration (continued)

The success of the hyperbaric centrifuge has addressed a variety of issues associated with the coal-cleaning process. In the past, removing moisture from very fine coal particles had been difficult. Methods typically used, such as thermal dryers or mechanical dewatering, had either proven too costly or had been unable to dewater ultrafine coal particles of 0.1 millimeters or less.

Through the cooperative agreement with NETL, Virginia Tech's development of the hyperbaric centrifuge, in combination with its related developments such as a clean coal technology called Microcel™, has been able to remove both water and ash from fine coal discarded at impoundments. The Microcel technology uses microbubbles to separate fine coal mineral matter that subsequently becomes ash during coal combustion. As a successful example of technology transfer, the Microcel process has been widely used in Australian coal clean plants.

Source: U.S. Department of Energy

Biennial DEP Report Shows 80 Percent of Streams, Rivers Attaining Use Designation--Challenges Remain

Report to EPA Also Recommends Streams, Rivers for 'Impaired' Status

Although Pennsylvania has made great progress in cleaning up its rivers, streams, lakes, wetlands and other water bodies, Department of Environmental Protection Secretary John Hanger said that a new report submitted to the federal government today shows there are still challenges threatening Pennsylvania's water quality.

The report, entitled "2010 Pennsylvania Integrated Water Quality Monitoring and Assessment Report," is submitted to the U.S. Environmental Protection Agency in accordance with the Clean Water Act, which requires each state to assess water quality within its borders.

"We've made a lot of progress in the past eight years improving water quality throughout Pennsylvania," said Hanger. "We've worked with municipalities to upgrade their wastewater treatment systems; we've worked with developers to minimize runoff; we've restored stream banks, reduced erosion and planted riparian buffers; and we've worked with the agriculture industry to ensure their operations protect the quality of streams running through their farms."

The secretary noted that Pennsylvania has classified approximately 3,300 miles of streams as exceptional value and another nearly 23,000 miles as high quality, ensuring the most stringent protections. He added that earlier this year, the state enacted a mandatory 150-foot buffer from all development along these most pristine waterways.

"This work means better water for

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Biennial DEP Report Shows 80 Percent of Streams, Rivers Attaining Use Designation (continued)

the state, which is important to our livelihood and health, obviously, but it's also important to our economy," said Hanger. "Many industries can't function if they have to rely on polluted water. And, unfortunately, there are still many threats to the state's waterways, so unless we continue to address those issues, thousands upon thousands of jobs could be in jeopardy."

According to the report, 68,320 miles of the state's 84,867 miles of streams and rivers—or 80 percent—that are assessed for aquatic life use are attaining that water use. Of the impaired miles, 9,413 require development of a total maximum daily load, or TMDL, to reduce pollutant inputs and 6,105 have an approved TMDL. An additional 65 miles are under compliance agreements and are expected to improve within a reasonable amount of time.

In terms of potable water supplies, 2,762 of the 2,883 stream miles assessed for potable water supplies attained that use, while 107 miles required a TMDL and 14 miles had an approved loading plan in place. Lake potable water supply use was assessed for 44,933 acres with 44,921 attaining that designation and 12 impaired acres requiring a TMDL.

Other findings include:

39,301 acres of the 76,483 acres of lakes that are assessed for aquatic life are attaining that use. Of the impaired acres, 5,349 require a TMDL, 11,290 have an approved TMDL, and 20,543 acres are impaired but do not require a TMDL because they are not affected by pollutants.

1,397 stream miles are assessed for recreational use, but only 701 are attaining that designation. There are 688 impaired miles requiring a TMDL and 8 miles with an approved TMDL in place.

Lake recreational use was assessed for 79,040 acres with 73,928 attaining, and 5,112 impaired acres requiring a TMDL. This does not include the state's portion of Lake Erie, which is impaired due to beach closings because of bacteria.

Of the 4,337 stream miles assessed for fish consumption, 1,907 are impaired and have consumption advisories. Of the impaired miles, 712 have TMDLs.

58, 295 acres of lake were assessed for fish consumption and 44,353 of those acres are impaired and have fish consumption advisories, while 5,483 of those impaired acres have TMDLs. The state portion of Lake Erie is not included in the totals, but a fish consumption advisory is in effect for the lake.

The report found that Pennsylvania's water bodies are facing threats from a variety of industries and are subject to many different types of pollutants. Sources of pollution include agriculture, stormwater runoff, land development, sewage treatment plants, and atmospheric conditions. Some of the pollutants of concern include nutrients, suspended solids, silt, metals and total dissolved solids (TDS).

Hanger said pollution levels and the threats to waterways all across the state justified DEP recommending that the EPA designate certain waters as "impaired." The report included those recommendations, which meets the EPA's "303 (d) list" requirements. The EPA will decide whether to grant the impaired designation.

The Clean Water Act requires all states to submit a 303 (d) list to the EPA for approval every two years. States must identify waterways that require additional

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Biennial DEP Report Shows 80 Percent of Streams, Rivers Attaining Use Designation (continued)

pollution controls to attain or maintain applicable water quality standards. Waters must be ranked to take into account uses and the severity of the pollution problem.

Most notable among those recommendations was the Monongahela River in western Pennsylvania, which is listed on the draft list as impaired because of concerns over sulfates—a constituent of TDS.

"We've spent a considerable amount of time the past three years assessing the quality of the Monongahela, particularly with respect to TDS and sulfates," said Hanger. "Our extensive research clearly shows TDS levels in the Mon are close to the upper limits of the safe drinking water standard. This river is stressed, and TDS must be addressed. Any further increases in TDS loads will ensure that the river becomes impaired, adversely affecting all dischargers in the watershed and those businesses and industries that rely on clean Monongahela River water."

For more information, visit www.depweb.state.pa.us.

Source: PA DEP