To Provide and Maintain a Healthful Environment

BIENNIAL REPORT 2009-2010 September 2011



Environmental Protection Agency





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Article XI-Environment

Section 1: PUBLIC POLICY-LEGISLATIVE RESPONSIBILITY

The public policy of the State and the duty of each person is to provide and maintain a healthful environment for the benefit of this and future generations. The General Assembly shall provide by law for the implementation and enforcement of this public policy.

Section 2: RIGHTS OF INDIVIDUALS

Each person has the right to a healthful environment. Each person may enforce this right against any party, government or private, through appropriate legal proceedings subject to reasonable limitation and regulation as the General Assembly may provide by law.

— From the Constitution of the State of Illinois /Ratified Dec. 15, 1970

"By thy rivers gently flowing, Illinois, Illinois

O'er thy prairies verdant growing, Illinois, Illinois

Comes an echo on the breeze."

- From "Illinois" (Official State Song) written by C. H. Chamberlain

TO PROVIDE AND MAINTAIN A HEALTHFUL ENVIRONMENT

Illinois Environmental Protection Agency

Biennial Report, 2009-2010 September 2011

State of Illinois Environmental Protection Agency Office of the Director Springfield, Illinois

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MESSAGE FROM THE INTERIM DIRECTOR

This is the fourth Biennial Report from the Illinois Environmental Protection Agency, providing an overview of the Agency's work during 2009 and 2010. It highlights the ongoing progress being made in our state to protect our air. land and water resources. It also describes the Agency's continuing efforts to involve communities and make environmental information more accessible to citizens and encourage everyone to take responsibility for good environmental practices. The dedicated staff of professionals at Illinois EPA relies on cooperation and partnerships with the regulated community, local governments, citizen organizations and others to carry out our mission. Since 1970, the Illinois EPA has been the primary state agency responsible for implementing and administering major state and federal environmental laws and regulations to meet the provision in our Illinois Constitution that "each person has the right to a healthful environment." This report reflects Illinois EPA's activities during 2009-2010 to attain that goal, which was fostered by the strong support and dedication to environmental protection of Governor Pat Quinn. Some of the highlights for 2009-2010 include.

Clean Water

Illinois EPA issued and is administering 148 loans for a total of \$516 million wastewater and drinking water projects under the 2009

American Recovery and Reinvestment Act (ARRA or "stimulus" program). The Illinois EPA provided funding for vital community projects such as wastewater treatment plants and sewers, and drinking water treatment, distribution and storage facilities. These projects not only created thousands of construction jobs but the principal forgiveness features in ARRA also allowed communities to proceed with these projects with reduced impact to water and sewer ratepayers.

A new Green Infrastructure Study was completed in 2009 in partnership with the Center for Neighborhood Technology, the Metropolitan Planning Commission, the University of Illinois-Chicago and others for establishing performance standards for management of urban storm water runoff from parking lots and streets and encouraging such practices as permeable pavement, bioswales, green alleys and rain gardens. A new Green Infrastructure Grants Program offering \$5 million statewide for these types of projects brought a strong response from applicants in April 2010. In addition, \$58.6 million of the ARRA funding is for green projects such as water or energy efficiency, green infrastructure and environmental innovation and a new Small Systems Compliance grant program of \$2 million was earmarked for small systems that do not qualify for the regular low-interest loan program. IEPA also continued to administer the Section 319 program which distributes federal funds to local stormwater projects and

has substantially reduced pollutants into lakes and streams.

Illinois EPA implemented expanded "right to know" legislation signed by Governor Quinn in 2009 that provides additional disclosures and safeguards from potential contamination threats to public water supplies, including expanded monitoring of source water and backup wells. It also requires public water supplies to provide additional documents to Illinois EPA and makes it a felony to provide false information to the Agency, a provision prompted by officials in Crestwood falsely claiming they were not using an emergency backup well to mix with purchased Lake Michigan water. Illinois drinking water is among the safest in the nation, with 96 percent of Illinois citizens served by community water systems that meet all applicable federal healthbased drinking water standards. Illinois EPA also joined with the Illinois Department of Public Health in 2009 to launch a Safe Water Well Initiative to encourage the more than 400,000 residents of the state relying on private wells to get them tested regularly.

Illinois EPA has revised and updated the regulations and permit process for Concentrated Animal Feeding Operations (CAFOs) and is working with Western Illinois University to develop a comprehensive inventory of all CAFOs and is working with USEPA to develop a permitting, inspections and compliance program. Illinois EPA co-hosted a Nutrient Summit in September 2010 that brought together 200 participants from sanitary districts, agriculture, environmental groups, industry, academia and government to hear presentations on impacts of excess nutrients (nitrogen and phosphorus in runoff) on lakes and streams, and smaller stakeholders discussions continue.

Cleaning Up and Preventing Land Contamination

Illinois EPA played a leadership role in the Leaking Underground Storage Tank (LUST) Task Force and implemented new legislation that will significantly reduce costs of remediation. The Aggency has reimbursed tank owners and operator more than \$100 million for cleanup costs. Illinois EPA also administered ARRA funding to clean up at least 28 "orphan" leaking underground storage tank sites, including a long abandoned one in East St.Louis that is now a popular farmer's market.

The Agency in 2010 chaired the Clean Technology Task Force for Commercial Clothes Cleaning that reached agreement on a legislative framework to phase in a ban on perchloroethylene for use in drycleaning. The improper disposal of this chemical has resulted in groundwater contamination in many parts of the state, including the well contamination in Crestwood.

The Illinois EPA Voluntary Site Remediation Program has resulted in more than 5,000 acres of land remediated and made available for productive use in 2009-2010. The Agency has also began an evaluation of all sites enrolled in the program to determine ones that need additional action or need to show more progress.

Illinois EPA was also awarded a \$400,000 competitive grant from USEPA to perform environmental assessments on brownfields sites. The Agency completed more than 10,000 inspections and complaint investigations of land contamination, and issued, renewed or modified 1,200 solid waste permits and over 100 hazardous waste permits.

Programs to safely dispose of and reduce solid waste included removing more than 5,900 tons of waste tires and 10,000 drums of household hazardous waste collected at four permanent sites. In Markham, a massive illegal open dump sites was cleaned up in 2010, including nearly 700 truckloads of waste and 100 truckloads of waste tires. IEPA partnered with the Illinois Department of Public Health, other state agencies and local law enforcement and government agencies to launch a Prevention of Illegal Open Dumping Initiative in September 2010 to expand awareness, reporting and prosecution of illegal dumping. IEPA is also implementing the Electronics Products Recycling and Reuse Act, which sets recycling requirements for manufacturers. More than 12 million of pounds of electronics were recycled in the first six months of 2010. The Agency is also implementing the new Beneficial Use Determination Program that will facilitate the

reuse of many products and keep them out of landfills.

Clean Air

IEPA received \$6 million in ARRA funds for diesel emission reduction projects that is being used by businesses, local governments, school districts, universities and transit districts to retrofit equipment to reduce diesel tailpipe emissions from existing vehicles.

Illinois' two areas ---Chicagoland and Metro East St.Louis--- that previously did not meet the federal ozone and fine particulates standards ("smog and soot") now measure attainment for both of these pollutants, data from the state-wide monitoring network operated by Illinois verified in 2010. This major benchmark accomplishment was coupled with the fact that the Air Quality Index continued to show a trend of fewer days when the air quality in some parts of Illinois is considered unhealthy.

In 2009, Illinois EPA reached agreements with two additional coal-fired power plants to reduce regional haze---CWLP I Springfield and Dominion in Kincaid --- that will significantly reduce sulfur dioxide and nitrogen oxide emissions. These build on the landmark 2006 and 2007 agreements negotiated by the Agency that require substantially reduced mercury, sulfur dioxides and nitrogen oxide emissions into the air from coal-fired power plants across the state beyond current federal requirements. In 2010, Illinois EPA reached a major pollution reduction agreement with US Steel in Granite City that will make its operations there one of the best controlled in the country for particulate emissions. Illinois was also one of three areas in the nation to complete a pilot project in 2010 for planning multi-pollutant strategies to address air quality problems and it is now being implemented in the St. Louis metro area.

Illinois EPA implemented changes in the vehicle emission and inspection program in the Chicagoland and Metro East areas that have made the testing less expensive, more efficient and more convenient for vehicle owners. The Agency also continued to encourage the use of cleaner and renewable fuels through rebates and educational programs. Clean air educational efforts included continuation of the national award-winning "Green Pays on Green Days" in the Chicagoland area that encourages citizens to take voluntary efforts to reduce pollution-causing activities, with a record number of participants in 2010.

Additional Outreach and Community Relations

Illinois EPA was one of three state environmental agencies nationwide to be awarded a State Environmental Justice Cooperative Agreement from USEPA for a project with the East Side Health District and St. Clair County governments to increase awareness of citizens in East St.Louis about the hazards of lead and lead paint and train local young adults for employment in Lead Abatement Remediation. Illinois EPA 's Environmental Justice Officer and Environmental Justice Advisory Group provide information to permitting and remediation staff on being sensitive to and handling environmental justice issues.

In 2009-2010, Agency staff presented information to more than 200 communities and organizations, participated in 80 public hearings and meetings and presented information at more than 90 additional events, conferences and workshops, as well as meetings and a newsletter targeted to the state's smaller counties.

The Agency's summer Pollution Prevention Internship continues to place college engineering interns in the field to help industry and others reduce waste and pollution and conserve energy and water with several millions of dollars in savings and thousands of tons of pollutants prevented as a result. In addition, Illinois EPA technical staff visited more than 105 facilities to help them improve their environmental performance.

Illinois EPA also continued a variety of educational outreach programs to young people, ranging from elementary school students with the Environmental Pathways curriculum tied to the popular Poster, Poetry and Prose contest, to the Green Youth Awards, and the Governor's Environmental Corps' internships for college students. The Agency also continued to provide small grants to teachers and conducted teacher workshops on environmental issues, focused primarily on water quality.

Emergency Response

During the 2009-2010 period, Illinois EPA's Office of Emergency Response responded to more than 2,800 incidents involving an impact on the environment, including highway, railroad and boat accidents, oil well and pipeline leaks, fires and explosions, and the impact of tornadoes, floods and other severe weather. The role of the staff was to make sure environmental impacts to air, land and water were properly assessed and remediated by responsible parties, as well as gathering information for potential enforcement actions.

Enforcement and Compliance

In 2009-2010, Illinois EPA made 314 enforcement referrals to the Office of the Illinois Attorney General and a total of 311 enforcement orders were finalized during the period, with more than \$10 million in penalties assessed by the Illinois Pollution Control Board or through court orders. Through the compliance process under the Illinois Environmental Protection Act, the Agency also issued 2,023 violation notices and approved 717 Compliance Commitment Agreements to resolve violations.

Legislative Accomplishments

Illinois EPA supported and helped pass successful legislative initiatives in 2009 that included the expanded Right-to-Know law applying to public water supplies, the Beneficial Use Determination law, and new authority for IEPA to issue administrative citations for allowing water to accumulate in stored used tires, failure of retailers to collect the Tire User, or file a return or transporting used or waste tires in a vehicle that is not properly registered or placarded.

Illinois EPA's successful legislative initiatives in 2010 included authorization for the use of additional subsidization in the State Revolving Funds programs for wastewater and drinking water infrastructure, requiring thermostat makers to establish and maintain a program for collecting and recycling of mercury thermostats taken out of service, prohibiting lead and mercury wheel weights when balancing and requiring public water supplies to submit a corrective action plan to the Agency when finished water has exceeded 50 percent of the federal Maximum Contaminant Level for potentially cancer-causing using volatile organic compounds, and new regulatory safeguards for the disposal of Clean Construction and Demolition Debris.

You will find more details on these topics in the report. In conclusion, I hope you will find this a valuable resource and if you have any suggestions or ideas on how we can make our programs or processes better, please do not hesitate to contact us. Your positive input is always welcome because when it comes to protecting the environment, it is not just the responsibility of government regulatory agencies, but, as our state Constitution states, "the duty of each person is to provide and maintain a healthful environment for the benefit of this and future generations."

– Lisa Bonnett, Interim Director

PUBLIC OUTREACH AND CITIZEN INVOLVEMENT

The Offices of Community Relations, Outreach, Environmental Education, Environmental Justice, Agricultural and Rural Affairs, and Pollution Prevention, under the Associate Director, are the Illinois EPA's direct links to the citizens of Illinois, providing them with avenues for input on Agency regulatory decisions, and providing information and problem-solving linkages on environmental issues.

The Office of Community Relations coordinated 28 formal public hearings and more than 40 public meetings, as well as facilitating sampling access agreements, and distribution of fact sheets and other site specific materials at locations throughout Illinois during 2009-2010. Permit applications and potential hazards from contamination and site cleanups were among the major issues of interest to communities in which community relations coordinators, who are trained in both communications and technical skills, were involved. They also work closely with county health departments and the Illinois Department of Public Health on assessing potential environmental health hazards.

In 2009, Community Relations and Outreach staff worked with Bureau of Water and Division of Public Drinking Water Supplies staff to launch a new joint initiative with the Illinois Department of Public Health and other state agencies to encourage private well owners to do frequent testing particularly for industrial chemicals, such as volatile organic compounds.

Safe Drinking Water Initiative



Groundwater is the source of drinking water for approximately 400,000 private wells and some public water supplies in Illinois. In August 2009, Illinois EPA partnered with the Illinois Departments of Public Health (IDPH), Agriculture, Natural Resources, and Commerce and Economic Opportunity to reach out to numerous organizations across the state about well water safety. The groups targeted for outreach included water districts, local health departments, groundwater advisory groups, city and county managers, township officials and many more (approximately 30 total). Each organization agreed to support this vital outreach effort to educate private well owners about potential groundwater contamination that could impact their water source and the need to test for it.

The purpose of the effort was to ensure that citizens across our state who obtain drinking water from private wells do not experience potential health risks from groundwater contamination. The effort was an expansion of the 2005 private well water educational campaign by the Agency and IDPH. Documents included in the electronic mailing were:

- > Cover email letter explaining the outreach effort;
- ➤ "Safe Water Well Initiative 2009" fact sheet;
- ➤ "Testing Private Well Water" brochure;
- > Public Service Announcements; and
- Talking Points and a Power Point for various presentations.

In addition, Illinois EPA created a Safe Water Well Initiative web page: http://www.epa.state.il.us/community-relations/fact-sheets/safe-water-wells/index.html that is linked to information such as "What You Need To Know About Private Drinking Water Wells" and that includes tips on well safety, sampling of private wells, fact sheets by IDPH and others regarding contamination commonly found in groundwater and how it can affect the water user's health.

Background

In recent years, volatile organic compounds (VOCs) have increasingly been found in groundwater in many areas of the state where there is a history of commercial and industrial development. The chemicals are breakdown products from two families of chemicals: solvents and fuels such as gasoline. Types of facilities that used these chemicals included dry cleaners, auto and boat engine repair shops, printing shops, gas stations and the metal parts fabrication industry.

This type of groundwater contamination is the result of decades of past management practices. Current regulations, in place since the early-to-mid 1980s, no longer allow this sort of chemical dumping.

There is also an increasing trend of VOC impacts to **public water supplies** that use well water. Public water supplies are required to test for these chemicals, however, and treat the water if necessary, while private wells are not. Illinois EPA supported legislation that requires notification of private well users and public (well) water supply users about groundwater contamination found in community wells.

Potential Health Effects

It depends on the toxicity of a chemical, its concentration and the duration of exposure whether or not adverse health effects might be expected. Exposure to low levels of certain VOCs over long periods of time may lead to impaired immune system function, may damage the liver, or increase the risk of cancer.

Joint Recommendation

Illinois EPA and Illinois Department of Public Health (IDPH) recommend that well owners test their wells for VOCs if they live in an urban or suburban area with business, industry or gas stations nearby. Wells in rural areas that may be affected by leaking fuel tanks should also test for VOCs.

The only way to know whether well water is safe to drink is by testing it. Most VOC contamination cannot be detected by odor, taste or visual appearance. Well testing done through a county health department typically deals only with bacteria and nitrates.

Chemicals to test for:

Volatile organic chemicals include some 21 chemicals for which public water supplies must test. Please see the list of chemicals at http://www.epa.state.il.us/well-water/targetlist.pdf. In addition, a county health department or regional IDPH office can recommend other tests for well water (e.g., arsenic, radium), depending on where a well is located.

Laboratories accredited to analyze water samples for VOCs are listed at: http://www.epa. state.il.us/well-water/list-accredited-labs.html

More information regarding private well safety and use, including information about

testing private well water can be found at: http://www.epa.state.il.us/well-water/ index.html

Information about the safety of public water supplies can be found at: http://www.epa.state.il.us/water/drinkingwater-watch/

Illinois Groundwater Protection Program Biennial Comprehensive Status and Self-Assessment Report (regarding trends for VOC detections in public water supply wells) http://www.epa.state.il.us/water/groundwater/g roundwater-protection/2006-2007/exe_summary_igpa_final_07.pdf

Information about Right-to-Know notifications that have been sent out regarding this type of groundwater contamination can be found at: http://www.epa.state.il.us/right-to-know/

In 2010, Community Relations and Outreach staff worked with the Bureau of Land and other agency staff to launch a Prevention of Open Dumping initiative in cooperation with other state and local agencies and groups to educate local authorities as well as citizens about how to prevent illegal dumping issues in their communities. The initiative was spurred by the discovery and cleanup in 2010 of one of the largest open dumping areas in state history, in the south Cook County suburb of Markham.

Prevention of Illegal Dumping Initiative



The problem: We have all observed illegal dumping – fly dumping of bags of trash, old mattresses or appliances thrown down a stream bank or along a road, piles of construction debris or tires left on an empty city lot or even on private property. All acts of illegal dumping affect the quality of life for anyone who lives near it.

The Initiative: The Illinois Environmental Protection Agency (Illinois EPA), the Office of the Illinois Attorney General (OIAG), the Illinois Departments of Public Health (IDPH), Natural Resources (IDNR) and Commerce and Economic Opportunity (DCEO), as well as county, township and municipal enforcement authorities and elected officials are linking strategies to fight these unsightly blights on our communities that may present a threat to public health and the environment as well as a potentially negative impact on area property values.

In September 2010, in partnership with the agencies and local offices listed above, Illinois EPA kicked off a state-wide initiative with an electronic mailing of a **fact sheet** http://www.epa.state.il.us/community-relations/fact-sheets/illegal-dumping/illegal-dumping-citizens.html, **a brochure** http://www.epa.state.il.us/community-relations/fact-sheets/illegal-dumping/illegal-dumping-law-enforcement.html, **public service announcements** (at bottom of page) http://www.epa.state.il.us/land/illegal-dumping/prevention.html and a notice of a news conference to be held at the illegal dump site in Markham, Illinois.

The e-mailing was sent to several types of municipal groups and organizations to forward to their members, including City and County Managers, Association of Illinois soil and Water Conservation Districts, Illinois Association of Public Health Administrators, County and Local Health Departments, Illinois Association of School Administrators, Illinois Municipal League, Metropolitan Mayors Caucus, Illinois Association of County Officials, Illinois Association of Chiefs of Police, Illinois Sheriffs' Association, Illinois State Crime Stoppers Association, and many others – more than 30 groups initially, with additional groups continuing to join. Illinois EPA staff gave presentations and provided materials on Prevention of Illegal Dumping in 2010 to the Illinois Association of States' Attorneys, Illinois Bar Association, Illinois Association of Chiefs of Police, Association of City and County Managers, and Illinois Environmental Justice Advisory Group

The purpose of the state-wide outreach effort was to impress upon all local officials and all law officers the need to enforce environmental laws against illegal dumping before dump sites grow to something that presents a threat to area residents and which can be very costly, requiring millions of taxpayer dollars and the intervention of state and federal agencies to remedy.

Illinois EPA created a Prevent Illegal Dumping web site - http://www.epa.state.il.us/land/illegal-dumping/ with links to related topics (e.g., Proper Disposal Methods, Used Tires, Illegal Dumps) and to the documents mentioned above (including a brochure designed specifically for law enforcement officers) that were developed for the state-wide initiative. Division of Legal Counsel contacts are provided to assist local officials and enforcement personnel with the legal aspects of enforcing against illegal dumping at the local level.

Markham Illegal Dump Site



In April 2010, the City of Markham alerted Illinois EPA about a large tire-fire on an illegal dump that spanned at least two city blocks within an eight-block dumping area. The site is located at 159th Street and Dixie Highway in Markham. It is estimated that nearly 50 years of illegal dumping had occurred at the isolated site, which was an unincorporated area of Cook County. Dozens of old boats, numerous mobile homes, various drums, totes and other containers of unknown chemicals and an area of swimming pool chemicals were discovered along with more than 50,000 tires and 10,000 tons of miscellaneous debris.

An additional problem was standing water that accumulated in open containers, including the discarded boats, which provided a breeding area for mosquitoes. Tests by the Illinois Department of Public Health revealed that several species of mosquito larvae were the type that can carry either West Nile Virus or a form of encephalitis. Illinois EPA arranged for a granular larvacide treatment of all standing water to reduce area residents' potential exposure to disease from mosquitoes until the containers could be removed from the site.

Illinois EPA spent over \$1 million during spring and summer 2010 removing most of the unburned tires and the non-hazardous debris. Meanwhile, several arrests – with resulting fines – have occurred in the area as the local law enforcement has increased their vigilance and action against this type of illegal dumping.

Fact sheets, other information regarding the Markham site:

http://www.epa.state.il.us/community-relations/fact-sheets/markham/index.html http://www.epaosc.org/markhamdump

Expansion of web-site information related to Right-to-Know

With the passage of the 2009 amendment to the Right-to-Know law, Public Act 096-0603, Illinois EPA intends to better protect public water supply users against illegal actions by a public water supply operator that may threaten public health. To increase transparency, Illinois EPA developed a web page – Drinking Water Information – that provides one-stop shopping and easy access regarding drinking water, whether someone is using a public water supply system or a private well: http://www.epa .state.il.us/water/drinking-water-watch/

Outreach

Illinois EPA staff presented information on Agency programs to over 200 communities, county organizations, and municipal groups and at approximately 90 events, conferences and workshops during 2009-2010.

During the 2009 and 2010, the Green Pays on Green Days summer air quality awareness outreach campaign the Agency sponsors in conjunction with Partners for Clean Air reached out to Chicago area residents to educate them on how air quality affects their health and more than 37,000 residents committed to do something to improve their air quality.

EnviroFlash provides local air quality forecasts via email to more than 2,400 registered subscribers since the spring of 2009. In 2009 the Agency was recognized by the USEPA for winning the EnviroFlash Challenge, for signing up the most participants during the 5week challenge.

During 2009-2010, the Governor's Green Youth Awards have recognized over 30 students, classrooms, and youth groups for outstanding and innovative environmental projects that benefit Illinois' environment.

The Agency developed multi -state agency workshops for the 43 counties in Illinois that have populations of 20,000 or less to provide better understanding of state programs and how to access them. The Agency continues to provide an electronic newsletter that highlights state federal and regional programs that can benefit the counties and communities in those counties.

In collaboration with other state agencies and the East Side Health District in East St. Louis, the Agency spearheaded the first Mud to Community Garden project to provide access to and education of the growing of fresh vegetables in a food desert area in a low income community.

Environmental Justice

The Agency applied for a State Environmental Justice Cooperative Agreement (SEJCA) from the United State Environmental Protection Agency. This grant will allow the Office of Environmental Justice to conduct ten to twelve Lead Informational Outreach Workshops/meetings in East St. Louis to inform the citizens about the hazards of lead and lead paint. Through the grant a partnership was established with the East Side Health District and St. Clair County Intergovernmental to train ten young adults in East St. Louis for employment in the Lead Abatement/Remediation trade.

Illinois EPA continues to host quarterly Environmental Justice Advisory Group meetings to provide input to the Director from Grass Roots environmental justice groups, Environmental groups, Industry, Academia, State agencies and Federal agencies. The Advisory Group worked closely with the Agency and provided comments to finalize the State Environmental Justice Policy which is posted on the IEPA's website in English and Spanish.

The Agency provides information to permitting and remediation staff within the IEPA on Environmental Justice and how to properly handle environmental justice issues. The IEPA Bureaus report potential environmental justice sites/issues to the Office of Environmental Justice for disposition.

As an agency that receives federal funding the IEPA works to insure compliance with 1994 Environmental Justice Federal Executive Order 12898 that created the Environmental Justice directive at the Federal level and Title VI of the Civil Rights Act of 1964.

Pollution Prevention

Summer Internship Program

In the summers of 2009 and 2010, Illinois EPA's Office of Pollution Prevention trained and placed 29 student interns in the field to work on pollution prevention projects at industrial, educational and local government facilities across the state. The students were recruited primarily from engineering and chemistry programs at state universities. The interns worked on projects to reduce waste, save energy and minimize releases to the environment. The projects varied widely, but each was designed to help facilities save money and improve efficiency. Taken together, the intern projects have the potential to:

- Reduce energy costs by over \$2.4 million;
- Save over \$99,000 in lower operating and disposal cost;
- Decrease water consumption by over 2.2 million gallons;
- Divert over 963 tons of waste material from landfills;
- Curb greenhouse gas emissions by over 15,000 tons.

Mercury Switch Removal

Under the Illinois Mercury Switch Removal Act, a group of domestic and foreign automakers has developed a statewide program to collect mercury containing switches from end-oflife vehicles before the vehicles are shredded. crushed or smelted; preventing the mercury from being released into the environment. The mercury switches can be found in trunk and hood convenience lights, as well as anti-lock brake systems of certain pre-2003 vehicles. The automakers are paying vehicle recyclers and others two dollars for each collected mercury switch to help offset removal costs. All mercury switches from end-of-life vehicles must to be removed and properly managed before the vehicle is processed as scrap metal, unless the switch is inaccessible due to significant vehicle damage. In 2009, 129 vehicle recyclers collected 45,039 switches or a total of 99 pounds of mercury for recycling. One hundred fifty-two (152) vehicle recyclers removed 47,137 mercury switches or 104 pounds of mercury from end-of-life vehicles in 2010. This represents a statewide collection rate of 28 percent.

Direct technical assistance: In FY09/10, Illinois EPA Pollution Prevention staff conducted site visits at 105 facilities to help them improve their environmental performance.

Environmental Education

In 2009 and 2010, nearly 2,000 fourth graders from Sangamon County were introduced to the importance of their environment and learned about ways to help protect and improve the world around them by attending Earth Stewardship Day. This event, spearheaded by the Illinois EPA, is a collaboration of several agencies and organizations to celebrate Earth Day and promote environmental awareness. Around 35 interactive presentations and special attractions were scattered throughout the fairgrounds each year representing a wide range of agencies and organizations, many of which were staffed by the Illinois EPA. The event was held at the Illinois State Fairgrounds and is intended to teach the students about the importance of protecting, restoring, recycling and reusing natural resources.

The Agency's quarterly newsletter, The Citizens' Bulletin, was e-mailed electronically in 2009 and 2010 for the winter, spring, summer and fall editions to registered subscribers and posted on the web site to provide citizens with useful information about environmental issues.



2009 Top 12 Winner: Victoria Lee from Fremont Middle School in Mundelein

In 2009 and 2010, more than 130 fifth and sixth grade students from across Illinois were recognized at the annual Poster, Poetry and Prose Awards Ceremony and Reception. The theme rotates every year between air, land and water. The theme for 2009 was Your Water Footprint – Keep it Small, Keep it Clean! and for 2010, Conserving and Protecting the Land of Lincoln! Student winners, along with their families and teachers were invited to the awards ceremony and reception in Springfield. A certificate and ribbon were presented to all of the finalists, and the top winners received a \$50 U.S. Savings Bond, a rosette, certificate, and an environmental reference book for their school library. An additional award was presented to twelve students; an Honorable Mention medal, in recognition of creativity, time and effort, and artistic skills, as well as a certificate and an environmental reference book A calendar was also created to include

the works of the top 12 and honorable mention winners.

The contest is intended to introduce students to a greater understanding of the importance of environmental awareness with the assistance of the Agency's teacher's manual, Environmental Pathways – Youth Investigating Pollution Issues in Illinois. This free environmental education teacher's guide meets the criteria of the North American Association for Environmental Education's Guidelines for Learning and is correlated with the Illinois Learning Standards. Although it is geared towards fifth and sixth grade, it is adaptable to use for other age groups. The guide is available by downloading or requesting a hard copy online at: http://www.epa.state.il.us/kids/teachers/environmental-pathways/index.html.

In 2009 and 2010, the Agency served as a Special Awards Sponsor at the Illinois Junior Academy of Science State Exposition in Champaign and awarded eight Environmental Excellence awards to students whose project encompassed an environmental awareness. The awards given were broken into two categories; a junior (7th and 8th grade) and a senior (9th – 12th grade) division. Winners were chosen from each category to receive an Outstanding Achievement, which consisted of a \$100 U.S. Savings Bond, plaque and certificate, and a Second Place Recognition, which included a \$50 U.S. Savings Bond, a plaque and certificate. In 2009, Illinois EPA helped to forge a partnership with a neighborhood high school, Lanphier High School, in Springfield by helping to implement an Environmental Club so that the students can be introduced to an environmental awareness and possible careers that can sustain such interests. This partnership is ongoing and has included projects from 2009 and 2010 with both Illinois EPA employees and members of the Environmental Club contributing, such as revitalizing the school's garden with native plants, Earth Stewardship Day, field trips and more.

The Agency sponsored and celebrated its third annual Dive In! event on September 24, 2009. It was co-sponsored by Sugar Grove Nature Center, the McLean County Soil & Water Conservation District and the Environmental Education Association of Illinois and was held at Sugar Grove Nature Center in Funks Grove for more than 500 4th and 5th grade students across central Illinois. Dive In! is designed to teach students the importance of protecting and conserving water, one of our most precious natural resources. This educational event consisted of hands-on learning stations that covered a wide variety of topics including the water cycle, geology, wetlands, streams, aquatic wildlife, watersheds, water quality/conservation, and soils. The 2010 Dive In! was held at The Nature Institute in Godfrey. This traveling, water-related stewardship event included presentations regarding water quality, stream tables, geology of Illinois, macroinvertebrates,

and animals in the watershed. The event reached out to more than 450 students in the surrounding area.

In 2010, the Agency participated in the Environmental Literacy Plan Steering Committee, which consisted of a multitude of agencies and organizations, to update the Environmental Literacy for Illinois Plan in an effort to increase the environmental awareness of Illinois youth. This five-year plan to fully incorporate environmental education into Illinois learning opportunities, was released in July of 1995 and is revised every five years and plays a crucial role in assisting both formal and non-formal educators with the necessary tools to help educate our youth in environmental education.

In 2009 and 2010, the Agency was actively involved with the Environmental Education Association of Illinois (EEAI). EEAI is a statewide organization that works to create and maintain a vital network to support and advance quality environmental education throughout the state. The Agency participated in presenting and sharing information at the annual conference where over 100 formal and non-formal environmental educators from around the state attend. In addition, the Agency exhibited and presented at the Illinois Science Teachers Association's both years to 1200 science teachers, as well as at the Clean Water Celebration in Peoria where equipment used to monitor water quality in Illinois' lakes

and rivers was demonstrated to over 5,000 students ranging from 3rd grade to high school.

Agency staff also made presentations at the Chemical Industry Council of Illinois (CICI) Career Conference in 2009 and 2010 at the Museum of Science and Industry in Chicago. The conference is an Industry Educational Partnership Program designed to provide students with information on careers and educational opportunities while building their awareness of the impact chemistry has on their lives. Over 3000 area middle and high school students who are interested in the sciences attended this event and rotated through the Industry Booths, Career Challenge and 'Weird Science'. The Agency demonstrated various hands-on activities for the students, such as use of an X-Ray Fluorescence Meter that is used by IEPA's Office of Site Evaluation (OSE) in the field to determine the inorganic (or heavy metals) levels in the soil; and a Photoionization Meter (PID) – used as a screening tool that detects volatile organic compounds; and also demonstrated aquatic macroinvertebrates that can be used as biological indicators, and other devices.

Other presentations included events at several schools and Earth Awareness/Green Fest events, at the third annual Adams, Brown and Pike county Soil and Water Conservation Districts' Earth Day Celebration held at the John Wood Community College Campus in Quincy, the Conservation Fair held at the DuQuoin State Fairgrounds,, the annual Stewardship Week in 2009 and 2010 at the Western Illinois Youth Camp at Lake Jacksonville, and at the Thompson Lake Festival held at the Nature Conservancy's Emiquon Preserve in Lewiston. The Illinois EPA also staffed a hands-on environmental education activity booth in both 2009 and 2010 in Conservation World at the Illinois State Fair, with an emphasis on interactive games for kids.



"...By thy rivers gently flowing, Illinois, Illinois."

CLEAN WATER

The Illinois EPA through its Bureau of Water oversees programs to protect and improve the state's surface and groundwater, as well as the development, construction and operation of facilities to collect, treat and discharge sewage, oversight for the development, construction and operation of drinking water treatment plants, low interest loans to fund these projects, and administers a variety of federal permit and grant programs to ensure safe use of Illinois waters recreationally and as essential components of good health and a healthy state environment.

Watershed Basin Number and Name

- 1. Great Lakes/Calumet
- 2. Des Plaines
- 3. Upper Fox
- 4. Lower Fox
- 5. Kishwaukee
- 6. Rock
- 7. Pecatonica
- 8. Green
- 9. Mississippi North
- 10. Kankakee/Iroquois
- 11. Upper Illinois/Mazon
- 12. Vermilion (Illinois)
- 13. Middle Illinois
- 14. Mackinaw
- 15. Spoon
- 16. Mississippi North Central
- 17. La Moine
- 18. Lower Illinois/Macoupin
- 19. Mississippi Central
- 20. Lower Sangamon
- 21. Upper Sangamon
- 22. Salt Creek of Sangamon
- 23. Upper Kaskaskia
- 24. Middle Kaskaskia/Shoal
- 25. Lower Kaskaskia
- 26. Big Muddy
- 27. Mississippi South Central
- 28. Mississippi South
- 29. Vermilion (Wabash)
- 30. Embarras/Middle Wabash
- 31. Little and Lower Wabash/Skillet Fork
- 32. Saline River/Bay Creek
- 33. Cache



ILLINOIS' WATER WEALTH

It is estimated that Illinois' surface water resources have only about 10 miles of water less than the combined lengths of the Nile, Amazon, Yangtze (Changjiang) and Volga Rivers.

Illinois has 119,244 stream miles of rivers and streams, 91,400 inland lakes and ponds within its borders, and 911 miles of major rivers make up part of its borders. The state has jurisdiction over a million acres of Lake Michigan. Illinois is a water-rich state with resources adequate to meet most existing and future demands.

Surface water in Illinois provides navigation, wildlife and aquatic habitats, waste dilution, drinking water, industrial and other commercial use, power generation, agriculture and irrigation. Groundwater is also plentiful in Illinois with high quality water available throughout the state from numerous aquifers. Natural and human-related activities can threaten full use of these resources, and in recognition of the State of Illinois' commitment to assuring plentiful clean and safe water for all citizens, ongoing thoughtful evaluation of current usage is needed.

Illinois receives an average 100 billion gallons of water a day from precipitation, with about 77 billion gallons of water each day returned to the atmosphere as evaporation from water and land surfaces, and transpiration from growing plants. Overall, surface water meets most drinking water needs, with Lake Michigan the major water source for the state's most densely populated areas in and around Chicago, and with communities in the southern half of the state relying on rivers, lakes and reservoirs to meet their water needs.

The quality of all these water resources can be affected by:

- naturally occurring radioactivity, salinity, biologic organisms, and substances present in the state's geologic makeup;
- industrial or agricultural discharges and spills,
- overuse of farm and industrial products that contaminate groundwater and surface waters, and
- human activity that causes sediment runoff and causes accumulation that reduces reservoir capacity.

Illinois' growing population, with dense concentrations in some areas, increases demand for water, while a growing awareness of environmental issues, and the unpredictability of floods or droughts, all challenge agencies and programs charged with protecting the state's water resources.

The Illinois Environmental Protection Agency has responsibility for overseeing the state's public drinking water programs, programs that deal with waste water disposal, and protection and improvement of water quality in lakes, rivers and streams that furnish natural habitat and human recreational resources.

Surface waters that supply Community Water Supplies are sampled every three years as part of the Illinois EPA's Ambient Lake Monitoring Program, with samples analyzed for pesticides, volatile organic compounds and inorganic compounds. Between 1999 and 2004, approximately 64 percent of the lakes and reservoirs used for drinking water supplies that were tested showed some impairment, and 1,073 miles, or 78 percent, of the tested surface water sources were impaired. In most cases, impairments include lawn chemicals, pesticides and some naturally occurring chemicals.

Contaminants chiefly come from farming, mining and urban development. The contaminants can usually be safely removed during the drinking water treatment process but that can be costly.

MONITORING SURFACE WATER CONDITION AND THREATS

The quality of rivers, lakes, and Lake Michigan plays a fundamental and vital role in the overall health of the environment and has a direct bearing on economic, social, recreational, and many other opportunities available to the residents of Illinois.

Monitoring Illinois Waters

To track resource quality condition and evaluate the effectiveness of water pollution control programs, Illinois EPA's Surface Water Section has been monitoring Illinois surface waters since 1972. Over this 40-year period, Illinois EPA has refined it's monitoring efforts to keep pace with technological advances, broadening environmental concerns, and increasing opportunities to benefit from collaboration with other agencies and public partners.

Monitoring programs are designed differently, depending on goals/objectives, water resource type (streams, lakes, Lake Michigan), and resources available (personnel and financial). Major monitoring programs conducted by the Surface Water Section include:

Ambient Water Quality Monitoring Network – 146 fixed stream stations distributed statewide and monitored nine times annually. *Intensive Basin Surveys* – river basin-scale stream monitoring done on a five-year cycle (140 stations annually) with the Illinois Department of Natural Resources.

Facility-Related Stream Surveys – monitoring conducted above and below wastewater treatment plants to determine impacts, if any, on downstream waters.

Ambient Lake Monitoring Program – 50 significant publicly-owned lakes monitored annually five times per year, once every five years.

Illinois Clean Lakes Program – intensive lake monitoring projects that diagnose lake impairments and lead to recommended feasible lake protection/restoration plans.

Volunteer Lake Monitoring Program – a monitoring and education program for Illinois citizens to learn about lake ecosystems.

Lake Michigan Monitoring Program – a newly redesigned program in 2010 consisting of near shore, harbors, and public water supply intake monitoring.

Fish Contaminant Monitoring Program – monitoring and analysis of fish fillets to determine levels of contaminants and issue consumption advisories, if necessary.

A report entitled, "Illinois Water Monitoring Strategy, 2007-2012," found at http://www.epa.state.il.us/water/water-quality/monitoring-strategy/2007-2012/index.html, provides a detailed discussion of all Agency monitoring programs.

Reporting

Pursuant to Sections 305(b) and 303(d) of the Clean Water Act, Illinois EPA is responsible for reviewing its collected data to assess the attainment or non-attainment of designated uses, such as aquatic life, swimming, fish consumption, and public water supply. Those assessments are reported to state and federal governments on a biennial basis in a document entitled, "Illinois Integrated Water Quality Report and Section 303(d) List." (http://www. epa.state.il.us/water/tmdl/303-appendix/2010/ 2010-ir-volume-i-surfacewater-draft-3-26-10.pdf)

The Good News

The miles of streams and lakes assessed, as well as assessment capabilities and tools, have improved dramatically since passage of the Clean Water Act in 1972. And the good news is that from an aquatic life use standpoint, 63.2 percent of Illinois stream miles are rated in "good" condition in 2010. That is a dramatic improvement from 1972 when only 34.7 percent were rated as "good." It is primarily due to ongoing efforts to control both point source ("end of pipe") and nonpoint source (runoff) pollution. The Upper Illinois River, for example, now supports walleye and other fishing tournaments, and uncontrolled industrial pollution and effluent toxicity have been virtually eliminated. Of equal good news is that 91 percent of lake acres and 100 percent of Lake Michigan open waters were also rated "good" for aquatic life use in 2010.

Continued Threats

However, real threats continue. Mercury continues to be found in fish tissues. In 2002, Illinois issued a statewide fish consumption advisory, cautioning children and women of childbearing age to limit their intake of Illinois fish because of mercury contamination. In 2010, tests indicated that 18 lakes and four streams had mercury levels that warranted additional, specific consumption warnings. These water sources included the Ohio, Rock, Little Wabash, and Wabash Rivers.

Especially after rainfall events, fecal coliform found in excess of its Illinois Pollution Control Board water quality standard, impairs swimming use at many lakes and streams. Rainfall and subsequent runoff causes excess amounts of nutrients (nitrogen and phosphorus) and sediments from agricultural, urban, and other sources to wash into waterways. Excess nutrients can cause excessive algal growth, and when algae eventually die off, they consume the oxygen needed for aquatic life. Sediment washed from rural fields and urban construction sites can clog drainage ditches and fill lakes, losing precious storage space for public water supply needs.

CLEANING UP IMPAIRED WATERS

TMDLs = *The largest amount of a given pollutant a water body can receive without violating water quality standards or becoming unavailable for its designated uses.*

Water quality in some Illinois lakes, rivers, and streams has been impaired by pollutants from a variety of sources. Since the signing of the federal Clean Water Act (CWA) in 1972, water quality has improved greatly, mostly by regulation of point source discharges (discharges from an identifiable "end of pipe" source). Other degraded lakes, streams, and rivers still need attention to maintain a healthy environment and ensure these waters remain safe for all to use and enjoy.

- TMDL is short for Total Maximum Daily Load. It is the greatest amount of a given pollutant that a water body can receive without violating water quality standards and its designated uses.
- TMDLs take a voluntary, incentive-based approach to set goals for pollution reduction necessary to improve the quality of impaired waters, weighing all potential sources to determine the pollutant load allowed in a given lake or stream. It also takes into account a margin of safety, and the effects of seasonal variation.

The Clean Water Act does not require an Implementation Plan as part of a TMDL, but Illinois EPA has taken the initiative to include Implementation Plans for every TMDL that is developed.

Section 303(d) of the federal Clean Water Act requires states to identify waters that do not meet applicable water quality standards or do not fully support their designated uses such as swimming, boating, fish consumption or providing drinking water. States are required to submit a prioritized list of these waters to the U.S. Environmental Protection Agency for review and approval. The CWA also requires that a TMDL be developed for each pollutant of an impaired water body. Illinois EPA is responsible for carrying out the mandates of the Clean Water Act for the state of Illinois.

After reduced pollutant loads have been determined, a plan is developed that spells out limits for point source discharges and recommends best management practices for nonpoint sources. It estimates associated costs and lays out a schedule for implementation. Commit-ment to the plan by the citizens who live and work in the watershed is essential to success in reducing pollutant loads and improving water quality.

Through the end of 2010, 520 segment impairments that have been addressed through TMDLs were approved by Region 5, USEPA. Additionally, IEPA is currently in the process of doing additional TMDLs to address 275 segment impairments.

NONPOINT SOURCE POLLUTION CONTROL PROGRAM

Nonpoint source pollution carries contaminants from urban and rural sources into surface water, groundwater and wetlands.

Precipitation moving over and through the ground picks up pollutants from farms, cities, mined lands, and other landscapes and carries these pollutants into rivers, lakes, wetlands, and groundwater. This is nonpoint source or NPS pollution. Major sources in Illinois are agriculture, construction erosion, urban runoff, hydrologic modifications, and mining.

Under Section 319(h) of the Clean Water Act, the Illinois EPA receives federal funds to implement NPS projects, working with local units of government and other organizations for corrective and preventative best management practices (BMPs) on a watershed scale; demonstration of new and innovative BMPs on a smaller, non-watershed scale; and the development of information/education programs on NPS pollution control.

NPS Categories for Section 319 Funding

Funding for the Section 319 program allocates dollars to projects related to agriculture, construction erosion, urban runoff, hydrologic modifications, and mining. Each has its own characteristics and problems, which may include soil erosion, loss of storage capacity due to sedimentation, impaired water quality from excessive nutrients that speed the aging process of a water body, as well as bacterial problems, and color, taste and odor impacts.

Hydrologic modifications like dredge and fill, wetland drainage, streambank and lakeshore alteration, dam construction, stream channelization, flow regulation, bridge construction, and removal of riparian or lakeside vegetation can affect the biological, chemical, and physical properties of ground and surface waters and adjacent habitats.

Section 319 funding also supports programs for:

- public education about nonpoint source pollution and its effects; implementation of structural or vegetative practices, or administrative programs that promote NPS pollution controls like streambank stabilization, wetland creation or restoration, terraces, waterways, green roofs, etc.;
- planning, including documentation of non-point source pollution problems and related r esource concerns, and development of strategies to protect and restore water resources impacted by nonpoint source pollution; and
- research to assess NPS water quality problems and improve NPS control techniques.

Some of the funding also supports staff and overhead expenses for administering the programs.

Funding for Illinois NPS Programs in 2009 and 2010

In 2009 and 2010, Illinois Section 319 programs received a total of \$14,496,400 in funding for all categories. They included grant projects that prevented 1,771 tons of sediment, 55,630 pounds of total suspended solids, 1,744 pounds of phosphorus and 3,694 pounds of nitrogen per year from being discharged into Illinois water bodies.

Details on Section 319 projects are available online at www.epa.state.il.us/ water/watershed/reports/biannual-319.

Illinois Green Infrastructure Grant Program (IGIG) for Stormwater Management Launched in 2010

Illinois EPA, with the help of a diverse stakeholder steering committee, developed this program in 2010 as one of the Agency's most recent financial assistance programs. An Illinois EPA Nonpoint Source Unit staff member describes the program as "beginning with a big splash in an effort to leave a green footprint."

The IGIG program is designed to provide financial assistance to local units of government and other organizations to implement green infrastructure best management practices (BMP) to reduce stormwater runoff within areas serviced by either a Combined Sewer Overflow (CSO) or a Municipal Separate Storm Sewer System (MS4). Successful applications will document stormwater management practices that have a primary goal of preserving, restoring, mimicking, or enhancing natural hydrology through percolation, evapotranspiration, filtering, harvesting and even the reuse of precipitation.

Officially launched in September 2010, an initial \$5 million was made available for installation of BMPs for urban stormwater control and 155 applications totaling almost \$50 million were received by the December 2010 deadline after extensive outreach across the state by Illinois EPA's partners.

Illinois EPA accepted proposals for three program categories: (1) Combined Sewer Overflow Rehabilitation (2) Stormwater Retention and Infiltration and (3) Green Infrastructure Small Projects Category.

Project proposals ranged from the installation of green roofs and permeable pavement systems to the disconnection of down spouts and illicit inflow disconnections from combined sewer systems.

The overwhelming positive reception to this new program demonstrated by the large number of applications shows not only the local need for assistance to implement appropriate BMPs to control stormwater, but also the diversity and number of local entities interested in controlling stormwater runoff to protect Illinois' water resources.

THE LAKE EDUCATION ASSISTANCE PROGRAM

The Lake Education Assistance Program (LEAP) is a grant program that offers up to \$500 to schools for lake education. The funds may be used to buy equipment, educational materials, pay for transportation for field trips and even pay for substitute teachers.

In 2009, 51 recipients received \$23,838 for lake projects and education. In 2010, 56 applicants received \$24,850. Projects ranged from fifth graders from St. Mary's in Bloomington collecting, counting, and identifying macroinvertebrates to try to determine water quality, to students from West Maine High School from Des Plaines giving a presentation of their



Students in Bloomington participate in a LEAP field trip.

LEAP project at the annual Illinois Lakes Management Association conference.

IEPA's VOLUNTEER LAKE MONITORING PROGRAM ENLISTS CITIZENS TO ASSESS WATER QUALITY

The Illinois Volunteer Lake Monitoring Program (VLMP) is one of the oldest programs of its kind in the nation. In 2010, the Illinois VLMP celebrated its 30th anniversary and is one of the Agency's most successful and longstanding programs.

The VLMP serves as an educational gateway for citizens to learn more about factors that affect lake water quality. By learning more about cause-and-effect relationships with their watershed and lake, volunteers are more likely to take an active role in protecting their lake by encouraging better lake management.

In recent years, the number of participants in the VLMP has averaged 300, monitoring approximately 165 Illinois lakes. In addition to the duties and responsibilities of the VLMP, many of our volunteers take part in global monitoring activities, such as the Great North American Secchi Dip-In and World Water Monitoring Day.

In 2011, the Illinois VLMP will begin its 31st monitoring season and is one of the Agency's most successful and long-lasting programs. In 2006, the VLMP re-structured its program into a three-tiered system. In Tier 1, volunteers monitor Secchi transparency and field observations, including invasive species tracking. Monitoring is conducted twice per month from May through October, typically at three in-lake sites.

In addition to monitoring Secchi disk transparency, Tier 2 volunteers enter the advanced water quality program by collecting water samples for nutrient and suspended solid analysis at Site 1. Water quality samples are taken once per month in May – August and October in conjunction with one Secchi transparency monitoring trip.

In Tier 3, volunteers are also part of the advanced water quality program and collect water samples at up to three sites on their lake. As in Tier 2, their samples are analyzed for nutrients and suspended solids; however they also collect an additional parameter: chlorophyll. With this additional parameter, volunteers must collect and filter their own chlorophyll samples. This tier may also include Dissolved Oxygen/Temperature profiles, as equipment becomes available. As in Tier 2, water quality samples are taken once per month in May – August and October in conjunction with one Secchi transparency monitoring trip.

Data collected in either Tier 1 or Tier 2 are for educational purposes. It is used to make general water quality assessments and helps volunteers to determine trends or to identify potential problems in their lake and/or watershed. Data collected in Tier 3 is used in the Agency's Integrated Report and is used to determine lakes that appear on the Agency's impaired waters list.



Lake Sara volunteers Charles Kellogg and Bob Kennedy take a Secchi depth reading. They are members of the Lake Sara Erosion Control Committee which received the 2010 Frank Loftus Award for lake stewardship from the Illinois Lake Management Association.

SINCE 2009, ALMOST 28,000 ILLINOIS CITIZENS HAVE REMOVED LITTER FROM 1,698 MILES OF ILLINOIS STREAMBANKS AND LAKE SHORES.

The Illinois EPA's Streambank Cleanup and Lakeshore Enhancement (SCALE) Program

started in 2003; helps volunteers around the state conduct productive litter cleanups of stream banks and shorelines in their areas.

Using federal Clean Water Act, Section 319(h) funds, Illinois EPA provides grants ranging from \$500 to \$3,500 to local organizations to conduct their clean up events. The funds are typically used for safety attire, dumpster rentals, landfill tipping fees and promotional materials. The recovered material is recycled when possible, and disposed of properly if recycling is not an option.

Since 2003, more than 270 cleanups were conducted including 70 in 2009-2010. The organizations that participate in SCALE are as diverse, as the litter that they find during their SCALE events. The SCALE program depends upon the action and dedication of the local volunteers.

A total of 31 applications were received for the 2009 SCALE program. All 31 were deemed eligible and were approved for funding for a total cost of \$35,500.

A total of 39 applications were received for the 2010 SCALE program. Thirty-seven applicants were approved for funding for a total cost of \$41,250.

During 2009 and 2010, SCALE participants removed more than 400 tons of trash from almost 1,700 miles of streams and 2,500 acres of lakes in Illinois, with 28, 850 volunteers participating in the cleanup events.

The Northern Illinois Angler's Association reported the most litter collected at 55 tons in 2009 and ORSANCO reported the largest area covered at 168 acres in 2010. The Friends of The Chicago River reported the greatest number of participants, with 4,000 turning out for a one-day event in 2010.

The Friends of Morton Grove Forest Preserve included the following statement with their 2008 SCALE Event Report – *We are finding less large things then years ago. Hopefully people are getting the message and are becoming more responsible.*



IEPA inspectors visit numerous facilities throughout the year and work with treatment plant operators, particularly on issues related to sanitary sewer overflows, combined sewer overflows and livestock facilities.

ILLINOIS WATER POLLUTION CONTROL -COMPLIANCE PROGRAM

Ongoing monitoring and reporting help ensure wastewater treatment operations are meeting the limitations built into their specific permits.

Background

The Clean Water Act of 1972 established a permit program for wastewater discharges, called the National Pollutant Discharge Elimination System permits. The permits, known as NPDES permits, set out requirements for both a national minimum level of treatment for various categories of industrial wastewater and domestic sewage, and any stricter limitations set by a state or necessary to meet water quality goals. In 1977, the Illinois EPA was delegated authority to issue the permits, including authority for compliance monitoring, enforcement, regulatory consistency, reporting, and public participation.

Compliance/Enforcement Activities

Sustained compliance is supported by monitoring, and timely, appropriate enforcement action for noncompliance. Early identification of potential compliance problems through field inspections and self-monitoring, and the timely issuance of Noncompliance Advisories and Violation Notices to achieve compliance, are key to the success of the compliance assurance program. Compliance monitoring activities include both field inspections of regulated and potentially regulated facilities, and in-office reviews of self monitoring reports such as Discharge Monitoring Reports (DMRs) and other information required to be submitted to the Illinois EPA.

The Illinois EPA is required to monitor compliance and evaluate violations of NPDES permittees to ensure timely and appropriate actions are taken to meet conditions of their permits. Quarterly Non-Compliance Reports are prepared on major facilities throughout the State. Major facilities are defined by USEPA as municipalities that discharge one million gallons per day or more and industries which meet a specific scoring criteria. Compliance rates for Illinois have been consistently around 95 percent, which is much higher than the national average.

Field Inspections

The Clean Water Act and federal regulations require each state with an approved NPDES program to implement inspection and surveillance procedures to determine compliance or noncompliance with its applicable requirements. The Illinois EPA's field staff performs numerous types of inspections, including evaluation, sampling, reconnaissance, pretreatment, grant/loan, livestock, storm water, operator assistance, and emergency response. During this reporting period, increased attention has been given to compliance issues related to wet weather and storm water discharges. Pollution can occur from runoff caused by storm events. Storm water can affect industrial sites, construction sites, sewage collection systems, and concentrated animal feeding operations. Increased inspections of these entities have resulted in increased compliance and enforcement followup actions taken by the Agency.

Self-Monitoring and Reporting

The self-monitoring portion of the NPDES permit sets forth sampling requirements as well as flow monitoring, analytical, and data reporting requirements. Much of the information is reported to the Illinois EPA through Discharge Monitoring Reports. A goal of self-monitoring and reporting is to produce data necessary for the Illinois EPA to determine facility compliance with NPDES permit requirements. Violations can result from:

- reported DMR data (discharges exceeding NPDES permit limits),
- failure to report required data,
- unachieved or late compliance requirements of NPDES permits, compliance commitment agreements (CCAs), and enforcement orders.

Discharge Reports Can Now be Submitted Electronically

National Pollutant Discharge Elimination System (NPDES) permit holders submit approximately 3,500 signed Discharge Monitoring Report (DMR) forms to the Illinois EPA on a monthly basis. The DMR forms include results of sample analyses pertaining to surface water discharges required to be reported under terms of the NPDES permit. Beginning in April 2004, the Illinois EPA implemented a system to web-enable the DMR process into a paperless electronic submission process over the Internet. Reduced paperwork and improved speed and accuracy in reporting have resulted from eDMR implementation.

SAFE DRINKING WATER ACT

Oversight, testing and analysis are all required to ensure that water delivered to the user's tap meets state and federal standards for safety.

The federal Safe Drinking Water Act was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. Amended in 1986 and 1996, the law requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals.)

Under the SDWA, the United States Environmental Protection Agency sets national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. US EPA, states, and water systems then work together to make sure that these standards are met.

Drinking water safety cannot be taken for granted. There are a number of threats to drinking water: improperly disposed of chemicals, animal wastes, pesticides, human wastes, wastes injected deep underground for disposal, and naturally-occurring substances can all contaminate drinking water. Likewise, drinking water that is not properly treated or disinfected, or that travels through an improperly maintained distribution system, may pose a health risk.

Originally, SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

ILLINOIS PUBLIC WATER SUPPLIES DRINKING WATER QUALITY

Persons Served by Compliant Water Supplies

The federal Safe Drinking Water Act gives the U.S. Environmental Protection Agency responsibility for setting national drinking water standards to protect the health of the 250 million people who get their water from public water systems. Currently, EPA has set national safety standards for more than 80 contaminants that may occur in drinking water. These standards are enforced in Illinois by the Illinois Environmental Protection Agency.

Maximum Contaminant Levels (MCLs)

In nature, all water contains some impurities. At certain levels, minerals, just like man-made chemicals, are considered contaminants that can make water unpleasant or even unsafe. Some contaminants come from erosion of natural rock formations. Others are discharges from factories, chemicals applied to farmlands, or materials used by consumers in their homes and yards. Sources of contaminants might be in your neighborhood or might be many miles away. Maximum Contaminant Levels (MCLs) are set to ensure that drinking water be free of contaminants with the potential to cause either short term or long-term health effects. During 2009 and 2010, over 95 percent of the total population receiving drinking water was served water that complied with limits on regulated impurities.

Acute vs. Chronic Health Effects

Contaminants fall into two groups according to the health effects that they cause.

Acute effects occur within hours or days of the time that a person consumes a contaminant. People can suffer acute health effects from almost any contaminant if they are exposed to extraordinarily high levels (as in the case of a spill). In drinking water, microbes, such as bacteria and viruses, are the contaminants with the greatest chance of reaching levels high enough to cause acute health effects. Most people's bodies can fight off these microbial contaminants the way they fight off germs, and these acute contaminants typically don't have permanent effects. Nonetheless, when high enough levels occur, they can make people ill, and can be dangerous or deadly for a person whose immune system is already weak due to HIV/AIDS, chemotherapy, steroid use, or other reasons. Chronic effects occur after people consume a contaminant at levels above EPA's safety standards for many years. The drinking water contaminants that can have chronic effects are chemicals (such as disinfection byproducts, solvents, and pesticides), radionuclides (such as radium), and minerals (such as arsenic). Examples of the chronic effects of drinking water contaminants are cancer, liver or kidney problems, or reproductive difficulties.

DRINKING WATER COMPLIANCE MONITORING

Contaminants can make drinking water unattractive or unpleasant, as well as unsafe; frequent monitoring, testing and reporting provide important information on the quality of each community drinking water supply.

To provide safe, clean, adequate water to consumers, public water supply operations must be properly constructed, operated and maintained. However, these alone cannot demonstrate the safety or quality of the water so it is necessary to collect representative water samples for analysis by certified laboratories on a routine basis. Sampling, proper operation, operational testing, record keeping and periodic facility inspection are effective means of documenting the safety and quality of the water reaching the consumer. The Illinois EPA requires all community water systems to analyze for specific contaminants as required by the Safe Drinking Water Act of 1974.

Treatment Techniques

When there is no reliable method of measuring a contaminant at particularly low concentrations that is economically and technically feasible, a Treatment Technique is used rather than an MCL. A treatment technique is an enforceable procedure or level of technological performance which public water systems must follow to ensure control of a contaminant. For example, treatment techniques have been established for viruses, some bacteria, and turbidity (cloudiness). **Reporting Violations**

and Consumer Awareness

Every community water supply (CWS) must provide an annual report (sometimes called a Consumer Confidence Report or CCR) to its customers. The report provides information on your local drinking water quality, including the water's source, contaminants found in the water, and how consumers can get involved in protecting drinking water. If the consumers have been looking for specific information about their drinking water, this annual report will provide them with the information they need to begin the investigation.

In addition, some community water supplies must also provide educational materials to the public regarding certain contamination. For example, supplies that exceed the lead action level must distribute lead public education materials (a brochure) to consumers. The materials spell out steps consumers can take to reduce the lead levels within their homes until the CWS has a chance to install or adjust treatment.

In both these cases, the CWS must report and provide examples of the materials distributed to the Illinois EPA which checks them to ensure they meet state and federal requirements.

For each violation described in the previous sections, public notification must be made. Public notification protects public health, builds trust with consumers by openly sharing information, and establishes ongoing, positive relationships with the community. Public notice also helps consumers understand rate increases and builds support for increased funding needed for drinking water treatment and protection. Properly done notices work for the benefit of the public water supplier as well as the public. If a problem occurs, educated consumers are more likely to understand the problem and support the actions a water utility must take.

RADIUM

The radium of concern to drinking water professionals occurs naturally in the earth's crust, where it has existed for millennia and can contaminate deep wells as it slowly leaches into the water.

In December of 2000, after more than 10 years of study, U.S. EPA confirmed a standard of 5 picoCuries per liter as the maximum acceptable amount of naturally occurring radium in drinking water from deep wells. The problem is not found in shallow wells or in surface water such as Lake Michigan.

Prolonged exposure to high levels of several types of naturally occurring radium-related materials, jointly known as "radionuclides," can slightly increase chances of some kinds of bone cancer. In the case of radium in drinking water, U.S. EPA has defined extended exposure as a consumer drinking two liters (about two quarts) of water containing radium in excess of the standard of 5 picoCuries per liter every day over a 70-year lifetime. Radionuclide removal is generally expensive and involves complicated water treatment processes. Over the last several years, Community Water Supplies (CWS) have been very active in installing treatment to achieve compliance with the radionuclide standards. In 2003, 114 CWS serving a total population of 603,759 exceeded a radionuclide standard. In 2010, only 16 CWS serving a total population

of 332,510 still exceeded a radionuclide standard. This is a 61% improvement. Most of the remaining non-complaint CWS are under a compliance schedule in which compliance will be achieved in the shortest amount of time (depending on the selected treatment option).

Accessing Safe Drinking Water Information Made Easier

The Safe Drinking Water Information System (SDWIS) Consumer Confidence Reporting and Monitoring Schedules web portal gives communities the ability to query those documents specific to their water systems. The access of the reports on the Internet has saved the Agency valuable resources over the course of the year, and assisted the systems.

SOURCE WATER ASSESSMENT AND PROTECTION (SWAP)

Waters that provide drinking water receive special scrutiny; new technology is improving the way information is available, and on-line links to programs let consumers find data specific for their water systems.

Public water supplies in Illinois rely on both surface water and groundwater as source water. The Illinois EPA has completed a source water assessment and protection program (SWAP) required by 1996 amendments to the federal Safe Drinking Water Act. Illinois continues to update these assessments as a followup to engineering inspections and as a part of ambient groundwater monitoring.

Goals of the SWAP program were to:

- identify source water areas that supply water to public water supplies,
- list possible sources of contamination,
- determine how susceptible the source water is to contamination, and
- inform the public of the results of these assessments.

SWAP will help communities decide on important decisions for protecting their drinking water and its sources. This benefits not only consumers, but the health and economy of the community, and preserves natural resources.

All communities, whether they rely on groundwater or surface water for drinking water, are encouraged to take an active part in continuing to assess their drinking water supplies and institute protective measures. Information on community water supplies regulated by the Illinois EPA, can be obtained by contacting the Source Water Protection staff at 217-785-4787. Information about noncommunity supplies can be obtained from local health departments or the Illinois Department of Public Health at 217-782-5830.

Additional information can also be obtained online at http://www.epa.state.il.us/enfo/.

Environmental Facts On-Line (ENFO) *Improves Access to Agency Programs*

New information management technology is being used to make Agency programs more accessible and responsive. The Source Water Assessment and Protection Internet geographic information system is the cornerstone of the ENFO (Environmental Facts Online) suite of environmental information, is used by every project manager and the Contaminant Evaluation Group (CEG). The CEG is using this technology to determine areas where, at a minimum, notification should be provided to off-site private drinking water well owners. In addition, the Agency is requiring environmental consultants to use this technology under new amendments proposed to Pollution Control Board regulations.

INFRASTRUCTURE PLAN-NING AND FINANCIAL ASSISTANCE PROGRAMS

Two active loan programs recycle state and federal dollars to help communities provide safe drinking water and minimize pollution from raw or inadequately treated sewage in their streams and rivers.

Since the late 1980s, the Illinois EPA has administered the State Revolving Fund (SRF), now featuring two low interest revolving loan programs that have together distributed more than \$3.7 billion in state, federal and repayment funding to communities around the state. These loans assist local governments with the installation, upgrade or expansion of sewage and drinking water facilities, providing desired services to residents while helping to achieve or maintain compliance with state and federal regulations. Congress first authorized the wastewater program (CWSRF) in 1989, and later added authorization for the drinking water program (PWSLP) in 1997. Through 2010, a total of 595 CWSRF (wastewater) and 359 PWSLP (drinking water) infrastructure loans have been made.

During 2009 a total of 51 applicants were approved to receive more than \$285 million in CWSRF project loans under the program, and in 2010, 40 more were funded at more than \$312 million. The drinking water program demonstrated similar success, with almost \$120 million awarded in 2009 for 63 PWSLP projects, and nearly \$85 million committed to 34 additional projects in 2010.

The SRF programs in Illinois were dramatically affected in 2009-2010 by the passage of the federal American Recovery and Reinvestment Act of 2009 (ARRA). As one of the largest recipients of SRF assistance through the ARRA, the Illinois EPA used that "stimulus" assistance to accomplish a number of important initiatives through redesigned programs focused on improving infrastructure and stimulating the economy in local communities across Illinois. In total, the Illinois EPA Bureau of Water managed more than \$256.7 million for wastewater (\$177.2 million) and drinking water (\$79.5 million) projects around the state.

ARRA program highlights included:

- The Illinois EPA programs were unique in combining ARRA resources with SRF program funds to maximize the amount of funding available to Illinois communities. This strategy resulted in a combined assistance total of more than \$516.3 million for ARRA loan projects, including 69 wastewater projects (\$356.5 million) and 79 drinking water projects (\$159.8 million) in 64 Illinois counties.
- The influx of new (ARRA) program funds allowed the Illinois EPA to redesign their programs to provide benefits that would encourage the development and initiation of projects at the local level. The ability to forgive principal in the SRF programs was utilized for the first time under the ARRA programs, with the nearly \$128.4 million in principal forgiven and the 0% interest rates offered generating savings estimated at well over \$350 million to local governments in Illinois.
- The favorable terms available under the ARRA programs allowed the Illinois EPA to leverage those funds with Unsewered Community grant program resources to further enhance funding terms for eleven communities that were previously unserved by sanitary sewers. This unique grant program helped to make projects affordable in these communities, many of which are located in areas hard hit by the recent economic down-

turn, while resolving serious environmental issues for the citizens of those communities.

• The "Green Project Reserve" (GPR), a concept included in ARRA authorizing language, was used to great effect in Illinois, with the Illinois EPA incorporating the concept in new program rules and using more than 23 percent of the ARRA funding provided to fund projects and project components focused on energy conservation, water conservation, green infrastructure or innovative/alternative solutions to environmental problems. The City of Chicago's "Meter Save" program, which was supported with ARRA funds, is an example of the type of project funded under the GPR. The City's Division of Water Management estimates that 30 million gallons of water could be saved every day if water meters were installed in all City homes and businesses; with the Meter Save program focused on the accomplishment of that initiative by the year 2023.

Originally, 80 percent of the funding for the SRF programs came from the federal government in the form of federal capitalization grants, with a 20 percent state match requirement making up the balance of the capitalization funding. Since that time, federal and state resources have continued to capitalize the fund, and a well developed loan repayment stream adds additional funding for infrastructure projects.

Wastewater loans approved in 2009 and 2010 included:

Loan Recipient	County	Project Description	Loan Amount
Ashton	Lee	Interceptor/Trunk Sewers	\$434,494
Aurora	Kane	CSO Separation	\$4,373,880
Aurora	Kane	Stormwater Capture/Detention	\$69,737
Bannockburn	Lake	Forcemain Replacement	\$106,733
BDM Sewer Commission	Sangamon	Pump Station Rehab	\$1,293,844
Bondville	Champaign	Unsewered Community	\$2,449,524
Butler	Montgomery	Unsewered Community	\$281,180
Charleston	Coles	WWTP Improvements-SSO Elimination	\$7,963,545
Chicago	Cook	Sewer Replacement	\$20,000,000
Clifton	Iroquois	Unsewered Community	\$4,951,029
Decatur Sanitary District	Macon	Sewer Collection to serve Oreana	\$6,069,748
Decatur SD	Macon	Wyckles Force Main - Phase 1	\$1,299,820
Decatur SD	Macon	Wyckles Road Force Main Phase 2	\$1,303,193
DeKalb	DeKalb	STP Biosolids/Tert Filter/Lift Station Upgrades	\$20,000,000
Downers Grove SD	DuPage	Sewer Replacement/Rehab, STP Improvements	\$8,847,011
Downs	McLean	Unsewered Community	\$6,881,005
Fithian	Vermillion	STP & Collection System Improvements	\$978,085
Flagg Creek WRD	Cook	Sewer Improvements/Relief Sewers/SSO	\$12,104,000
Flora	Clay	Sewer Extensions	\$1,012,828
Franklin	Morgan	Unsewered Community	\$1,523,817
Genoa	DeKalb	30-inch Interceptor	\$2,106,505
Glenview	Cook	Stormwater Basins	\$654,841
Godfrey	Madison	Sewer Extensions	\$2,820,034
Harrisburg	Saline	Sewer Extension - Garden Heights	\$733,789
Homer	Champaign	Unsewered Community	\$5,561,857
Itasca	DuPage	STP Expansion	\$20,000,000
Jerseyville	Jersey	Digestor Roof Replacement	\$967,405
Lakewood	McHenry	Sewer Lining & Manhole Rehab	\$151,166
LaSalle	LaSalle	New WWTP, reduce CSO's	\$15,000,000
Manlius	Bureau	Unsewered Community	\$809,953
Mascoutah	St.Clair	Sewer/Lift Station Improvements	\$3,273,529
McNabb	Putnam	Unsewered Community	\$1,320,475

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Loan Recipient	County	Project Description	Loan Amount
Metro East SD	Madison	Forecemain Replacement	\$2,887,416
MWRD of Greater Chicago	Cook	Orington Ave Sewer Rehab	\$5,647,514
MWRD of Greater Chicago	Cook	Harms Road 2 Sewer Rehab	\$10,381,885
MWRD of Greater Chicago	Cook	Upper Des Plaines Sewer Rehab 12 & 13B	\$1,059,659
MWRD of Greater Chicago	Cook	Upper Des Plaines Sewer Rehab 14A	\$2,910,942
New Baden	Clinton	Collection System Improvements	\$414,343
New Baden	Clinton	WWTP Expansion	\$3,612,655
North Chicago	Lake	Sewer Replacement	\$1,752,856
Olney	Richland	Lift Station & Forcemain	\$1,014,307
Olympia Fields	Cook	Sewer Lining	\$2,648,293
Onarga	Iroquois	Unsewered Community	\$4,226,874
Oregon	Ogle	STP/Wet Weather Improvements/CSO Reduction	\$3,640,454
Ottawa	LaSalle	STP Rehab/SCADA/Excess Flow Improvements	\$7,720,293
Payson	Adams	WWTP Expansion	\$2,883,584
Pecatonica	Winnebago	STP Expansion	\$6,200,000
Peru	LaSalle	Sewer Separation to Eliminate CSO's	\$5,988,531
Port Barrington	McHenry	Sewer Extensions	\$1,192,514
Port Byron	Rock Island	WWTP Upgrade	\$4,107,811
Reading Township	Livingston	New Collection System	\$7,393,355
Rock Falls	Whiteside	STP Improvements and Pump Station Force Main	\$20,000,000
Rock River WRD	Winnebago	East Side Interceptor	\$2,482,463
Rockbridge	Greene	Unsewered Community	\$545,208
South Lyons Township SD	Cook	Sewer Repair/Replacement	\$5,108,456
Spring Valley	Bureau	Sewer Seperation & Sewer Replacement	\$4,057,012
Springfield Metro SD	Sangamon	STP Expansion	\$20,000,000
St. Charles	Kane	East Side/Riverside PS Rehab	\$2,405,960
St. Elmo	Fayette	STP Improvements	\$701,000
Streator	LaSalle	Kent Street Interceptor - CSO Elimination	\$13,781,387
Sycamore	DeKalb	WWTP Upgrade	\$5,506,532
Thorn Creek SD	Cook	Sewer Lining	\$633,440
Urbana-Champaign	Champaign	STP Improvements	\$20,000,000
Villa Park	Dupage	Sewer Rehab	\$2,922,116
Washington	Tazewell	STP Expansion	\$7,554,185
Wheaton SD	DuPage	South Side Interceptor & STP Improvements	\$17,386,386

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Loan Recipient	County	Project Description	Loan Amount
Will County	Will	Ridgewood - Unsewered Area - Joliet Twnsp	\$624,441
Wilmette	Cook	Sewer Lining	\$302,729
Yorkville-Bristol	Kendall	STP Expansion-Influent/Effluent Lines	\$1,450,719
Belleville	St. Clair	STP Construction/CSO Controls	\$20,000,000
Bethalto	Madison	Wet Weather Treatment/Detention	\$1,120,643
Braidwood	Will	New STP	\$10,000,000
Chicago	Cook	Sewer Lining/Replacement	\$20,000,000
Colchester	McDonough	Lift Station and Force Main Replacement	\$477,544
Colona	Henry	Bar Screen Replacement	\$318,787
Decatur Sanitary District	Macon	Extend Sanitary Sewer Service to Argenta	\$6,840,032
Flagg Creek WRD	Cook	New Pump Station and Force Main	\$3,236,999
Fox Metro WRD	Kane	STP Upgrade Phase I: Excess Flow Facilities	\$12,051,000
MWRD of Greater Chicago	Cook	Sludge Thickening Facilities @ Central Stickney	\$40,000,000
MWRD of Greater Chicago	Cook	39th Street Conduit Replacement: Phase I	\$48,855,871
MWRD of Greater Chicago	Cook	Upper Des Plaines Interceptor: Phase II	\$11,144,129
Nashville	Washington	STP Upgrade/Improvement	\$1,134,991
Park Forest	Will	Rehab Excess Flow Facilities	\$1,311,756
Pontiac	Livingston	STP Upgrade/Collection System Rehab	\$5,469,667
Princeton	Bureau	STP Upgrade/Improvement	\$2,797,795
Rock Falls	Whiteside	STP Upgrade/Expansion: Phase II	\$5,481,355
Rock Island	Rock Island	Combined Sewer Overflow Controls	\$515,515
Rock River WRD	Winnebago	Sewer Lining/Replacement	\$3,280,675
Smithton	St. Clair	STP Construction	\$5,073,254
South Palos Township SD	Cook	Sewer Lining/Replacement/Lift Station Replacement	\$3,939,282
Spoon Valley Lake SD	Knox	Sanitary Sewer Extensions	\$2,957,753
Springfield Metro SD	Sangamon	Sewage Treatment Plant (STP) Upgrade/Expansion	\$20,000,000
Swansea	St. Clair	Upgrade Western Avenue Lift Station	\$685,826
Tennessee	McDonough	Unsewered Community	\$1,324,146
Urbana Champaign SD	Champaign	STP Upgrade/Expansion: Phase II	\$17,162,704
Viola	Mercer	STP Upgrade/Improvement	\$2,071,225
Waukegan	Lake	Wetland Restoration/Storm Water Controls	\$317,821

Drinking Water loans approved in 2009 and 2010 included:

Loan Recipient	County	Project Description	Loan Amount
Abingdon	Knox	Water Meter/Hydrant Replacement	\$250,000
Altamont	Effingham	Watermain Extensions	\$282,364
Arenzeville	Cass	New Storage Tank & Transmission main	\$812,603
Ashland	Cass	Watermain Interconnect	\$754,984
Aurora	Kane	Watermain Replacement	\$1,137,278
Bannockburn	Lake	Watermain Replacement	\$1,296,844
Beardstown	Cass	Storage Tank and Water Mains	\$2,500,000
Beardstown	Cass	Watermain Replacement/Meters	\$5,338,090
Bushnell	McDonough	Watermain Replacement	\$1,030,787
Channahon	Will	New Storage Tank	\$1,804,270
Chicago	Cook	Watermain Replacement	\$12,102,934
Clarendon Hills	DuPage	Watermain Replacements (and L173574)	\$2,129,190
Decatur	Macon	Storage and Watermain	\$9,805,524
Dixon	Lee	New WTP at Wells 6 & 8	\$4,134,201
Durand	Winnebago	New Water Meters	\$949,650
East Moline	Rock Island	WTP Improvements	\$2,726,410
Edinburg	Christian	Watermain/Valve/Hydrant replacement	\$1,857,783
Eldorado	Saline	Watermain Replacement	\$398,955
Ellis Grove	Randolph	New Storage Tank	\$175,825
Evanston	Cook	Watermain Replacement /Heat Intake Screen	\$1,933,862
Fields Hill Homeowners	LaSalle	Watermain Replacement	\$296,068
Fountain Water District	Monroe	Water Storage & Booster PS	\$1,340,447
Frankfort	Franklin	New 1 MGD Storage Tank & Watermain	\$2,686,492
Galesburg	Knox	Flood Protection at WTP	\$1,127,480
Grafton	Jersey	Watermain Extension & WTP Discontinuation	\$1,407,363
Groveland Township	Tazewell	Storage Tank Rehab	\$214,546
Hamel	Madison	New Storage Tank	\$1,400,000
Hinckley	DeKalb	New Well & WTP & Well Rehab	\$2,863,585
Ipava	Fulton	Watermain Looping	\$350,223
Knoxville	Knox	Water Tank Rehab & Painting	\$190,000
Lake Iroquois WC	Iroquois	Water Tower Rehab	\$245,040
LaMoille	Bureau	WTP Improvements	\$211,000

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Loan Recipient	County	Project Description	Loan Amount
Liberty Ledford	Saline	Watermain Replacement	\$250,000
Lindenhurst	Lake	Watermain Replacement	\$1,264,279
Macomb	McDonough	WTP Improvements	\$902,102
Manhattan	Will	Well #6 Pump Upgrade & Treatment	\$3,199,167
Mapleton	Peoria	Watermain Replacement	\$113,509
Marion	Williamson	Interconnect with Rend Lake CD	\$571,381
Marseilles	LaSalle	WTP (radium)/Wells/Watermain	\$2,500,000
Maryville	Madison	New Storage & WTP Expansion	\$2,493,161
Mascoutah	St. Clair	Watermain Replacement	\$736,455
Maywood	Cook	Watermain Replacement	\$1,399,345
Mechanicsburg-Buffalo WC	Sangamon	WTP Improvements	\$1,039,458
Mechanicsburg-Buffalo WC	Sangamon	Tranmission Main	\$407,077
Milstadt	St. Clair	New Water Tower	\$2,672,153
Naplate	LaSalle	WTP Improvements	\$596,010
New Haven	Gallatin	Watermain Replacement	\$176,025
Normal	McLean	WTP Filter Improvements	\$1,479,677
Normal	McLean	Flow Baffles for Storage Reservoir	\$2,037,577
Northlake	Cook	Watermain Replacement	\$1,075,458
Otter Lake WC	Macoupin	WTP Improvements	\$6,263,975
Piper City	Ford	Watermain Replacement	\$149,097
Pittsfield	Pike	Raw Main/Transmission Main/Booster Station	\$9,326,022
Plano	Kendall	Well House Relocation	\$867,927
Princeton	Bureau	New Wells	\$3,548,375
Red Bud	Randolph	WTP Upgrade - Reaction Basin	\$375,000
Rend Lake CD	Franklin	Watermain, Booster Station & Storage	\$1,728,647
Riverside	Cook	Watermain Replacement	\$2,249,147
Riverside	Cook	Northgate - Watermain replacement	\$507,796
Rockford	Winnebago	Multiple Projects	\$6,877,227
Rockford	Winnebago	Dawson Ave Water Main	\$3,122,773
Rossville	Vermilion	WTP Improvements	\$200,000
Rutland	LaSalle	Water Tower Rehab	\$109,234
Saline Valley	Saline	New Well	\$139,974
Sangamon Valley PWD	Champaign	Elevated Tank and Wells Rehab	\$388,095
South Elgin	Kane	New Well & WTP	\$3,915,705
South Pekin	Tazewell	Water Tower	\$1,119,002

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Loan Recipient	County	Project Description	Loan Amount
Spring Valley	Bureau	Watermain Replacement	\$687,415
Springfield	Sangamon	Chemical Feed Building/Electrical Upgrade	\$4,627,654
Springfield	Sangamon	Water Meter Replacement	\$666,014
St. Francisville	Lawrence	WTP Expansion	\$842,013
Taylorville	Christian	New Water Tower/Main	\$4,769,736
Villa Park	Dupage	Watermain Replacement (and L173720)	\$2,164,757
Virginia	Cass	WTP/Distribution Improvements	\$10,000,000
Wauconda	Lake	New Well and Plant	\$1,473,057
West Frankfort	Franklin	Watermain Replacement	\$203,988
Westmont	DuPage	Burlington/Lincoln Ave (3185) Water Main	\$1,520,163
Will County	Will	Watermain to Ridgewood Area	\$2,336,624
Winchester	Scott	New WTP/New Well	\$2,987,564
Altona	Knox	New Storage Tank	\$426,409
Chicago	Cook	Chicago Meter Save program	\$2,000,000
Chicago	Cook	Water Main Replacement	\$8,000,000
Dixon	Lee	Wells 3 and 5: Radium Removal facilities	\$4,187,022
East Dundee	Kane	Water Treatment Plant (WTP) Upgrade	\$3,414,000
Grand Ridge	LaSalle	New Well and WTP: Arsenic Compliance	\$859,058
Kewanee	Henry	Water Main Replacement	\$515,987
Litchfield	Montgomery	Phase II WTP Improvements	\$2,628,782
Mascoutah	St. Clair	Water Main Replacement	\$866,575
Park Forest	Will	Water Main Replacement/Booster Pumps	\$3,299,546
Plainfield	Will	Water Main Replacement	\$3,309,451
Princeville	Peoria	New Well and Raw Water Main	\$832,774
Rockford	Winnebago	Radium Treatment Facilities: Well U10	\$2,633,303
Rockford	Winnebago	Dawson Avenue Water Main	\$720,521
Rockford	Winnebago	Radium Treatment Facilities: Well U36	\$3,128,995
Rockford	Winnebago	Reservoir/Well Demolition	\$913,740
Rockford	Winnebago	Well Demolition/Abandonment: Radium	\$381,087
Saint Charles	Kane	New Water Treatment Plant (WTP)	\$6,395,495
South Holland	Cook	Water Main Replacement	\$3,959,705
Sublette	Lee	New Storage Tank	\$777,348
Toledo	Cumberland	Water Main Replacement	\$216,513
Virginia	Cass	WTP/Distribution Improvements: Phase II	\$5,452,893
West Frankfort	Franklin	Water Main Replacement	\$478,797
Unsewered Community Grants

In addition to the low interest loan programs funded through the State Revolving Fund, the Illinois EPA has also managed a grant program for unsewered communities in Illinois since 1999. During the biennial period, the Illinois EPA leveraged the remaining funding for the Unsewered Communities grant program with SRF program funding to enhance funding terms for eleven communities that were previously unserved by sanitary sewers. This unique grant program helped to make projects affordable in these communities, many of which are located in areas hard hit by the recent economic downturn, while resolving serious environmental issues for the citizens of those communities. Approval was given for eleven projects, including grants to the communities of Homer (\$5,000,000), Bondville (\$3,831,308), Lexington (\$5,000,000), Downs (\$3,742,903), South Streator (\$5,000,000), Manlius (\$2,072,224), McNabb (\$1,081,677), Clifton (\$4,756,871), Butler (\$1,280,301), Franklin (\$3,478,767) and Onarga (\$4,706,000).

Preliminary Results of Bacteria Monitoring from Illinois' Groundwater Dependant Community Water Supply Wells

The United States Environmental Protection Agency published the Ground Water Rule (GWR) in the Federal Register on November 8, 2006. The purpose of the Ground Water Rule (GWR) which goes into effect on December 1, 2009 is to provide for increased protection against microbial pathogens, particularly fecal contamination, in public water systems that use groundwater sources.

Illinois drinking water law and regulations are more stringent than the GWR, because in addition to treatment, using the best available source is required.

Beginning in September of 2007 Illinois EPA began requiring sampling at all wells on a monthly basis for total coliform and Escherichia coli (E. coli) bacteria. This source sampling was done concurrently with the Total Coliform Rule (TCR) sampling conducted at sites in the distribution system This data has identified wells at risk which, in most cases, has led to mitigation efforts.

Additionally, as part of this effort, Illinois EPA has initiated the process of educating water supply officials and operators. Systems have been provided preliminary information about the GWR and state regulations via letters, seminars, and meetings. As resources allow, the Illinois EPA plans to continue this process through the 2009 effective date of the GWR.

Results: In 2010, 2,935 wells tested and evaluated at CWSs across the state. Based upon available data, 2,714 (or 93 percent) of these wells are currently viewed as using a sanitarily safe source of groundwater. Of the 22 (or seven percent) CWS wells that have shown bacteria contamination 204 wells have taken necessary corrective actions. The remaining 17 are evaluating o have schedules for corrective actions. The Illinois EPA has initiated evaluation of potential correlations between bacteria occurrence, hydrogeology, and other factors.

> 93% of Illinois CWS wells appear to be using a safe source of groundwater.

GROUNDWATER USE AND ASSESSMENT

Groundwater assets underlie much of Illinois, offering drinking water resources to consumers in all parts of the state. Part of Illinois EPA's mission and statutory responsibility is to protect those resources.

According to the United States Geological Survey, Illinois uses approximately 15. 2 billion gallons of fresh water per day. Only a small percentage, 1.210 million gallons per day (MGD) is from groundwater sources. Groundwater in Illinois has many uses, however. They include 479 MGD or 40 percent for irrigation; 406 MGD or 35 percent for public water supplies; 128 MGD or 11 percent for industrial use; 101 MGD or 8 percent for domestic use, including private wells; 44 MGD or 3 percent for livestock use; 41 MGD or 3 percent for mining use and 7 MGD or one percent for thermoelectric sources.

In Illinois, about 3.7 million people use groundwater as a source of public water supply (PWS). There are 6,252 PWS in Illinois, of which 4,935 are groundwater dependent. There are 1,826 community water supplies (CWS) in the state, of which 1,195 are groundwater dependent. In addition, Illinois has approximately 4,446 non-community groundwater dependent systems that serve schools, restaurants, parks, and other businesses. Further, it is estimated that approximately 400,000 residences in Illinois are served by their own private wells.

The Illinois EPA utilizes three primary aquifer classes to assess the groundwater resources of the state. The three principal aquifers are sand and gravel, shallow bedrock, and deep bedrock aquifers. Approximately 58 percent or 32,000 square miles of the state is underlain by principal aquifers. Of these, about 33 percent or 18,500 square miles are major shallow groundwater sources. Of the 3,517 active CWS wells that withdraw from these aquifers, 46 percent or 1,619 utilize sand and gravel aquifer; 27 percent or 934 utilize a shallow bedrock aquifer; and 24 percent or 825 utilize a deep bedrock aquifer with the remaining 3 percent or 139 undetermined.

The widespread use of chemical products, coupled with the disposal of large volumes of toxic waste materials, poses the potential for widely distributed groundwater contamination. Hazardous and non-hazardous chemicals are in widespread use in urban, industrial, and agricultural settings. Whether illegally disposed, accidentally spilled, or applied to the ground as part of a management practices, these chemicals can eventually reach and contaminate groundwater. Because of the volume of toxic wastes and their stability in groundwater, such contamination can pose a threat to public health. The Illinois EPA continues to coordinate with the Governor's Groundwater Advisory Council to respond to the increasing trend of contamination of CWS wells with volatile organic compounds. To this end, the Illinois EPA continues to evaluate impacts to groundwater resources by implementing an ambient monitoring network of CWS wells.



"O'er thy prairies verdant growing, Illinois, Illinois."

CLEAN LAND

Illinois EPA's goals are to protect human health and the environment to assure that hazardous and solid waste will be managed in a sound manner, and to reduce or control risk to human health and the environment by overseeing the cleanup of contaminated sites.

Prior to 1970, waste disposal and management practices in Illinois were regulated by the Department of Public Health. Regulations at that time were limited to performance-based standards that prohibited obvious threats to human health and the environment, such as blowing litter, odors, and vermin. These controls were not effective in protecting one of the most important natural resources in Illinois, its groundwater. In 1970, the Illinois General Assembly established the Illinois Environmental Protection Agency to ensure that important resources are protected and that interrelated environmental problems are addressed through a multimedia approach.

Throughout the first 25 years, the Illinois EPA emphasized the development of new regulations and programs necessary to perform its mission to protect human health and the environment by (1) ensuring that wastes are managed in a safe manner and (2) that contaminated sites posing a risk to human health and the environment are cleaned up. The development and enforcement of the clean land regulations has resulted in a significant improvement in environmental conditions.

Uncontrolled disposal of hazardous wastes has practically been eliminated, hundreds of contaminated sites have been cleaned up and returned to productive use, hazardous waste generation has been significantly reduced, and all landfills meet Illinois standards for design and performance that protect groundwater quality.

Although the mission has not changed, the maturation of the Clean Land programs within the Bureau of Land has required a shift over the past decade from regulatory development and enforcement to increased citizen involvement if they are to more fully accomplish their goals.

SAFE WASTE MANAGEMENT

In 2009, municipal solid waste generated in Illinois was managed and disposed primarily through four types of operations.

Landfills

13.8 million tons of municipal solid waste was disposed in 44 landfills in Illinois during 2009, down 8.2 percent than that reported in 2008. Two of these 44 landfills also were permitted to accept hazardous waste. One landfill near Charleston reported closure in April 2009, and a transfer station opened at this location. All other landfills were open into 2010.

Twelve percent of this waste was accepted from 11 other states (besides Illinois), including the adjacent states of Missouri, Iowa, Wisconsin, Indiana, Kentucky and six other states. Twenty-four landfills in Illinois reported accepting waste from out-of-state.

There are 24 years of landfill capacity remaining, as reported by 47 landfills. Two new landfills opened in July and August 2009: Clinton Landfill #3, Clinton and Atkinson Landfill, Atkinson.

Four landfills near Fairview, Harrisburg, Jerseyville and Streator continued to remain inactive in 2009; although they again reported capacity remaining as of Jan. 1, 2010. One other landfill in Greenville reported inactivity at the end of March 2010. Streator has now withdrawn their permit application for a horizontal expansion as of March 2010, and now plan to initiate the closure process.

In December 2008, Republic Industries Inc. (ranked #3) purchased Allied Waste Industries Inc. (ranked #2), creating changes in ownership and operation. Changes in ownership were also reported in 2010 in Southern Illinois. Veolia MW Solid Waste Midwest Inc. has sold its landfills in Fairfield and Sumner to Allied Waste Industries Inc.

In February 2009, vertical and horizontal expansions were permitted at Indian Creek Landfill No. 2. There were additional expansions that were approved by Illinois EPA's Bureau of Land Permit Section in the time period between Jan. 1 and June 30, 2010 that were not included in the capacity reported by landfill operators to Illinois EPA on Jan. 1st. These were: expansions at landfills in Elwood, Rochelle and Milan.

During 2008, expansions at River Bend Prairie, Dolton approved Jan. 2nd; at Rochelle Municipal #2, Rochelle on May 16th and at Winnebago Landfill, Rockford, on May 16th. During 2007, Illinois EPA approved a 14.9 acre lateral landfill expansion on March 13th at ADS/McLean County Landfill, Bloomington. At Laraway RDF, Elwood, we also approved a vertical expansion on Oct. 30th adding 2.2 more years to site life.

Compost Facilities

Composting declined just 1.8 percent from 2008, as 488,704 tons of landscape waste was processed at 40 compost facilities in Illinois during 2009. Thirty-six percent of the amounts accepted are managed at the top three compost sites in Antioch, Belleville and Essex. Three new compost facilities opened in Centralia in 2007, Romeoville in 2008 and Lake Bluff in 2009.

Eighteen sites are located in the Chicago Metropolitan Region and six sites are located in the Metro East St. Louis Region.

Organics composting activity is expected to grow with the passage of Senate Bill 99 on Jan. 1, 2010 which exempts facilities that accept food waste for composting from pollution control facility requirements, regulating these facilities more like the tradition landscape waste composting facilities.

Recycling

Local recycling coordinators estimate that approximately 7.5 million tons of municipal waste was diverted from disposal through recycling. The State's recycling rate is reported to be 34.1 percent. Amounts of municipal waste generated were estimated to be about 22.1 million tons.

Transfer Stations

109 transfer stations processed nearly 6.8 million tons of municipal waste destined for either disposal in landfills or recycling markets. However, since the reporting was voluntary, this amount is estimated.

New transfer stations are located in Charleston, Jacksonville and Lake Bluff, which either opened in May or June 2009; and at Maywood, which opened in February 2010.

Trends in Solid Waste Management

The trend in Illinois is toward fewer, but larger, regional municipal solid waste landfills owned by private companies complemented by a greater number of local transfer stations. Three top landfills in Davis Junction, Roxana and Rockford received 29.4 percent of waste handled in 2009. Seventy-five of these transfer stations are located in the Chicago Metropolitan area. Ten transfer stations are located in the East Central Illinois area.

Landfill closures

An issue for local commerce is the closure of any of these active landfills. As of Feb. 1, 2008, River Bend Prairie Landfill, Dolton is the only facility located in Cook County, due to the closure of the landfill in Hillside, in western Cook County. Near Charleston, the landfill closed in April 2009, but a transfer station was then located in the landfill location. At the end of Dec. 2009, CID RDF \$4, one of the State's two hazardous waste landfills closed, leaving just the one in Peoria, which is also nearing closure. Landfill closures also have an unfortunate resultant effect on revenues avail-



Compacting and spreading garbage at a municipal waste landfill

able to implement recycling and environmental education programs at the local level.

Landfill Life

Landfill disposal capacities vary widely within the various geographic areas of the state, ranging from 11 to 60 years. The Chicago Metropolitan area has the lowest landfill life expectancy of eleven years .Years of capacity remaining state-wide, as reported by landfill operators themselves, is 24 years.

Chicago Metropolitan Area's waste may be problematic

There is a moratorium against landfills within Chicago's city limits. Land prices are high in Chicago. Therefore, waste generated by Chicago Metropolitan regional's population then may become a state-wide issue of interest to several Illinois counties. Also affected is available capacity in at least two adjacent states of Indiana and Wisconsin.



Contractors hired by IEPA recycle or properly dispose of material in dumps targeted by IRID.

CLEANUP OF CONTAMINATED PROPERTIES

IRID

Funding to crack down on illegal dumps

The IRID (Illinois Removes Illegal Dumps) Program was started in 2006 to clean up orphan open dump sites. In an effort to facilitate the removal of waste and the prevention of future open dump sites, the IEPA's Field Operations Section has six field staff and a program manager to administer the Program.

To date, the Program has completed over 270 open dump cleanups in every region of the State. This amounts to approximately 42,000 tons of waste sent to landfills, 1,140 tons of recyclable metals to salvage yards, and 800 tons of waste tires to permitted tire recycling sites.

Bureau of Land Regional Number of IRID Cleanups Completed

Region Name	Completed Calendar Years '09-'10	Total Completed Since 9-06
Rockford	9	11
Des Plaines	14	37
Peoria	10	40
Champaign	3	11
Springfield	8	17
Collinsville	22	58
Marion	27	97
TOTALS	93	225

Leaking Underground Storage Tanks (LUST)

Illinois EPA's Leaking Underground Storage Tank Program is in the top five nationwide when it comes to cleanups completed. Between October 1, 2008, and September 30, 2009, there were 901 cleanups completed, placing Illinois third in the nation. Between October 1, 2009, and September 30, 2010, there were 859 cleanups completed, placing Illinois second in the nation. Furthermore, for the tenth consecutive year, the number of sites remediated has exceeded the number of new releases reported, thus reducing the backlog of open incidents. U.S. EPA's Region 5 office has highlighted Illinois' significant accomplishment in this area, as Illinois' contribution has helped U.S. EPA meet its national cleanup goals.

In the coming years, Illinois' challenge is to cut into the backlog of open incidents. In early 2010, U.S. EPA released a draft backlog analysis that provides a study of federally regulated underground storage tanks (USTs). U.S. EPA's study attempts to characterize and address why there are approximately 100,000 confirmed UST releases nationwide that have not been cleaned up. Illinois is using the results of this study to determine what is keeping releases from getting cleaned up by doing more thorough research and analyzing 41 variables. The Illinois study will:

- (a) compile and publish statewide site (property) usage data, presently unavailable for any state, on Illinois' open and closed sites;
- (b) determine if each site meets the federal and state definitions of an eligible site;
- (c) provide and discuss relevant descriptive statistics for the Illinois sites; and
- (d) design, build, test, and discuss an exploratory statistical model to predict site open and closed status.

The exploratory model will be used to investigate and collect technical, economic, social, and demographic data relative to remediation of properties, where petroleum has leaked from state and federally regulated USTs, to predict whether a leaking UST site in Illinois is remediated and closed.

Ultimately, reuse of these sites depends on several parties, including the UST owner, environmental consultant, landowner, property developer, various municipal departments, investors, end users, real estate agents, Office of the State Fire Marshal, and the Illinois Environmental Protection Agency, working together toward achieving the same goal.

Site Remediation Program (SRP – Voluntary Cleanups)

Illinois EPA's voluntary cleanup program is one of the oldest in the nation (one of two that started in 1989). To date, over 4,154 sites have been enrolled in the program, with 365 sites enrolling in 2009 and 2010.

Superfund (National Priorities List or NPL) Program

As the Superfund Program finished its twentyninth year, construction had been completed at 29 of the 51 NPL sites in Illinois. Completion of construction qualifies the site for deletion from the NPL. To date, Illinois EPA, in conjunction with the United States Environmental Protection Agency and Potentially Responsible Parties has remediated over 4854 acres of some of the most contaminated properties in Illinois. Construction projects are ongoing at 9 NPL sites. The Superfund program has a longstanding "enforcement first" policy to pursue viable, responsible parties to pay for or carry out cleanups. In Illinois, 78 percent of the NPL construction projects underway are lead by Potentially Responsible Parties.

Federal Facilities Program

Sites addressed by the Federal Facilities Program include some of the largest properties undergoing remediation in Illinois. These sites offer tremendous potential for economic redevelopment and restoration of wildlife habitats. Since 1995, at least partial remediation has been completes at some 81 sites encompassing some 44,104 acres.

RCRA Corrective Action Program

This program directs owners and operators of hazardous waste management facilities in the cleanup of releases from where waste was managed in the past, such as tanks, impoundments, landfills, and drum storage. Since 1996, over 9,000 acres have been remediated under the requirements of this program.

Response Actions Program

This program takes preventive or corrective remedial action, particularly where other cleanup programs may lack the ability to take short-term remedial actions. During 2009 and 2010 the program performed investigations and cleanups at old manufacturing plants, former waste oil recycling operations, contaminated agricultural facilities and other sites where surface water, groundwater, soil and air are contaminated with hazardous substances. By the end of 2010 over 1,237 acres were remediated by this program. Work has been completed on 136 sites in 93 communities.

West Nile Virus Issue

Improperly managed used tires pose a significant threat to human health and the environment by providing a prime breeding habitat for disease-carrying mosquitoes and by creating a fire hazard. The species of mosquitoes most often found in improperly managed used tires, the Northern House mosquito (Culex pipiens), is also the primary carrier of the West Nile virus. Therefore, the identification and removal of used and waste tire dumps continues to be a top priority for the Illinois EPA. The Illinois EPA conducts more than 1000 inspections at used tire facilities and responds to more than 500 complaints from local officials and citizens annually. For more information on the Illinois EPA's Used Tire Program, please contact the Illinois EPA at (217)785-8604 or visit: http://epa.state.il.us/land/tires/index.html.

2009/2010 Used Tire Program

Since the inception of the Illinois EPA's Used Tire Program in 1990, more than 20 million used and waste tires have been removed from the environment and properly disposed through the Illinois EPA's collection and enforcement programs. The Illinois EPA will continue to maintain strong inspection, enforcement, cleanup, and marketing programs to support end use markets for used tires in Illinois. Current and future projects in which the Illinois EPA are involved include a proposed rulemaking to update the used tire management regulations and continued involvement in the leadership of the Tire Workgroup of the Resource Conservation Challenge (RCC), a national partnership between U.S. EPA, states, industry and academia to promote quality government used tire regulatory and cleanup programs and to further develop and promote end use markets for used tires, such as tire derived fuel, crumb rubber, rubberized asphalt, and civil-engineering applications.

Consensual Removals/ Forced Removals

Since 1990, the Illinois EPA has co-sponsored 630 Countywide Used Tire Collections, resulting in the collection and proper disposal of more than 90,900 tons of used tires, which is the equivalent of more than 8 million passenger tires. During 2009 and 2010, Illinois EPA did not co-sponsor any countywide used tire collections.

Local Government Collection Program

In 2007, the Illinois EPA initiated the local government collection program for used and waste tires collected by units of local government. The purpose of this program is to provide units of local government with disposal service for all used and waste tires collected

from public and abandoned properties located within their respective jurisdictions. The Illinois EPA initiated this program with the City of Chicago and the program has steadily expanded since its inception to include more than 40 units of local government. The Illinois EPA will continue to expand this program to all interested units of local government. This expansion is particularly important given the discontinuance of the countywide used tire collections in 2009. The countywide used tire collections have outlived their usefulness given the statutory restrictions governing the consensual removal program and the Illinois EPA must continue to find more appropriate and efficient ways to spend our limited resources. Although the Illinois EPA does not plan to conduct countywide used tire collections in the future, we will continue to conduct consensual removals on a case-by-case basis to ensure compliance with the statutory provisions.



IEPA has collected millions of waste tires for recycling.

Used Tire Markets

The majority of the used tires collected are converted into tire-derived fuel (TDF) and burned for energy recovery in utility boilers and cement kilns. Other uses for used tires include recycling into playground flooring and landscape mulch, various civil engineering applications, and crumb rubber for use on athletic fields, in rubberized asphalt, and in the manufacturing of various rubber products.



Household hazardous waste drop-off

Household Hazardous Waste Collections

With the assistance of local governments, the Illinois EPA sponsored 6 one-day household hazardous waste collection events in 2009 and 2010 at a total cost of over \$395,000. This cost does not include Illinois EPA administrative expenses or the costs to local co-sponsors for event publicity, traffic control or other locally provided services. Over 1,171 drums of waste were collected at the events. Since the program began in 1989, 465 one-day collection events have been held, with more than 80,700 drums of waste being collected from approximately 416,700 households. All of the collected wastes were disposed of or recycled at Illinois EPA-approved facilities.

Illinois EPA also maintains Intergovernmental Agreements with four host communities to operate long-term household hazardous waste collection programs. These long-term programs are coordinated with the City of Naperville, the City of Rockford, the City of Chicago and with the Solid Waste Agency of Lake County in Gurnee. In 2009 and 2010, the Illinois EPA provided over \$1,785,000 for disposal of more than 9,221 drums of waste collected through these programs.

School Hazardous Waste Collections

In 2009 and 2010, the Illinois EPA coordinated hazardous education waste collections at 46 schools throughout the state. These collections resulted in over 112 drums of waste being disposed of at Illinois EPA-approved disposal facilities and cost the State over \$80,000. Hazardous education waste is chemical waste generated as part of school curricula and include laboratory wastes, expired chemicals, unstable compounds, mercury containing items, toxic materials and flammable materials. Since 1996, the Illinois EPA has conducted 919 hazardous education waste collections.

Partners for Waste Paint Solutions

Approximately 25 percent of the waste collected at Illinois EPA sponsored one-day Household Hazardous Waste collection events is paint. To address this high volume waste stream, the Illinois EPA initiated the Partners for Waste Paint Solutions program in 1995. These partnerships offer consumers the opportunity to deliver unwanted paint to local participating paint partners where it can be reformulated or remixed for reuse. Disposal of unusable paint is coordinated by the Illinois EPA. In 2009 and 2010, the Illinois EPA coordinated with approximately 20 paint partners to collect over 1,200 drums of unwanted paint for reuse or disposal. The total cost incurred by the Illinois EPA in 2009 and 2010 for this program was \$207,594.

E-Waste

E-waste, or obsolete electronic products, is the fastest growing component of our solid waste stream. E-waste contains toxic materials such as lead, mercury, arsenic, cadmium, and beryllium that pose a risk to human health and the environment. E-waste also contains valuable materials—such as copper and gold—that can be reused, which conserves energy and natural resources. Illinois' new Electronic Products Recycling and Reuse law effectively deals with the growing problem of toxic ewaste for Illinois residents via e-waste collection, recycling and refurbishment.

The new law, which took effect on September 17, 2008, requires that manufacturers of computers, monitors, laptop computers, printers, and televisions must register with the Illinois EPA and develop recycling programs in the State. For the first full year of the program, 106 manufacturers were assigned recycled goals. For the first six months of 2010 e-waste collectors reported collecting nearly 12.5 million pounds of obsolete products for recycling. Manufacturers provided funding for the majority of those collections. Beginning January 1, 2012 all computers, televisions, monitors, and printers will be banned from landfill disposal.

Brownfields

Brownfields are properties at which redevelopment is hindered by the presence or perceived presence of environmental contamination. In 1998, the Illinois EPA created the Office of Brownfields Assistance to provide technical and financial support for the redevelopment of Brownfields. Municipal Brownfields Redevelopment Grant Program Illinois EPA offers municipalities grants up to \$240,000 for investigation and cleanup of Brownfields. To date, 130 municipalities have been awarded over \$18.4 million.

Brownfield Cleanup Revolving Loan Fund

Illinois EPA administers this fund providing loans to municipalities of up to \$1,000,000 per borrower to clean up municipally owned brownfield sites. In 2009 and 2010, loans totaling 1,258,000 were awarded to two municipalities.

Brownfield Representatives

Brownfields representatives act as a liaison for communities to various Illinois EPA technical, financial, and regulatory programs. In 2009 and 2010, representatives assisted numerous municipalities across the state on various brownfields projects.

Illinois EPA offers limited site evaluation services to municipalities (free of charge) to determine the potential costs and to identify potential environmental obstacles for brownfields redevelopment.

ARRA Leaking Underground Storage Tank Cleanup Program

Illinois EPA received \$7.4 million in 2009 under the American Recovery and Reinvestment Act (ARRA) program to clean up leaking underground storage tanks from abandoned gas stations or other facilities where there was no responsible party available to pay for the remediation.

The 28 projects chosen were in municipalities where environmental site investigations had already been completed through the state Municipal Brownfields Redevelopment Grant program or where communities had applied and were waiting for a grant to perform site investigations. Many of the projects chosen were given special consideration because they were located in Environmental Justice areas, which have significant minority or low-income communities that are disproportionately impacted by environmental and other health hazards. However, projects were located in communities in all areas of the state, from Freeport in the far north to Cairo at the southern tip of Illinois.

For example, one of the completed projects in 2009 involved remediation of a long-abandoned Buick dealership in downtown East St. Louis that became a popular farmer's market operated by a local community organization.

The projects were able to be done on a more expedited basis than usual because they were primarily "shovel ready" and Illinois EPA used experienced remediation consultants and contractors to perform the clean-ups.



"Comes an echo on the breeze."

CLEAN AIR

The Illinois EPA's Bureau of Air continues to improve Illinois' air quality through regulatory efforts and numerous other programs enlisting citizens and organizations.

The Illinois EPA operates a state-wide monitoring network of 80 monitoring sites and over 200 instruments. Air quality trends for the criteria pollutants are continuing to show downward trends in emissions which equates to improved air quality. There has been a decrease in the emissions for all criteria pollutants over the last four years.

The Air Quality Index (AQI) has continued to show a trend of fewer days when the air quality in some part of Illinois was considered unhealthy. Illinois currently has two areas designated as non-attainment areas, which do not meet federal standards for both ozone and fine particulate matter (PM2.5), specifically, the greater Chicago area consisting of six counties and several townships, as well as the East St. Louis metropolitan area consisting of three counties and a township. Both of these areas now measure attainment for both ozone and PM2.5. Illinois EPA is moving forward with measures to have both of these areas redesignated as attainment.

The Illinois EPA has made groundbreaking strides towards controlling the emissions from coal-fired power plants as well as promoting environmentally beneficial clean coal technologies. Measures that affect these power plants and that will serve to significantly reduce their harmful air pollution emissions include: the Illinois Mercury Rule, the Illinois Clean Air Interstate Rule (Illinois CAIR), and the Multi-Pollutant Reduction Agreements. The Illinois Mercury Rule became final in December 2006. Illinois has been recognized as a national leader in the fight against toxic mercury emissions and provided testimony to the U. S. Congress on this issue. The Illinois CAIR was finalized in August 2007. The Illinois CAIR provides for reductions in Sulfur Dioxide (SO2) and Nitrogen Oxides (NOx) throughout the state that are beyond the reductions contemplated under the federal CAIR. The rule contains incentives for coal plants to install costly and effective pollution control equipment, as well as an additional incentive to install such controls early. The Illinois



IEPA air monitor on roof

CAIR also provides substantial incentives for energy efficiency, renewable energy (e.g., wind and solar projects), and clean coal projects. Lastly, as a result of the Multi-Pollutant Reduction Agreements reached with the power plants and Illinois EPA during 2007 and 2008, there will be reductions in the emissions of hundreds of thousands of tons per year of air pollutants. These are the largest emissions reductions ever agreed to by companies in any state, outside of one instance involving a legal settlement. The agreements require the reductions in emissions of mercury, SO2, and NOx.

In 2009, the Illinois EPA reached separate agreements with two other coal-fired power plants to reduce regional haze. Namely, both

City Water Light and Power (CWLP) in Springfield and Dominion in Kincaid agreed to significant reductions in SO2 and NOx as well as CWLP agreed to shutdown it oldest, least controlled units.

In 2010, the Illinois EPA reached an agreement with United States Steel Corporation (U.S. Steel) in Granite City, on a major pollution reduction plan that will make the steel making operations at the facility one of the best controlled operations in the country. The agreement means that U.S. Steel will significantly boost their capture and control of air emissions at the plant by installing particulate matter emissions capture and control equipment to reduce particulate matter emissions; meeting tighter particulate matter emission limits on operations throughout the steelmaking process; performing enhanced monitoring for particulate matter emissions, including the installation, operation, and maintenance of monitoring devices; performing other emissions reduction projects, including the installation of equipment designed to increase emissions capture and the evaluation of adding additional emissions capture and control equipment.

Illinois was one of three areas nation-wide that completed a pilot project in 2010 for planning multi-pollutant strategies to address air quality problems, rather than the traditional singlepollutant approach. The pilot project, called the Air Quality Management Plan (AQMP), was a cooperative effort with the State of Missouri, the U.S. EPA, and a coalition of local officials, businesses and environmental groups. The AQMP is now being implemented to address air pollution issues and risk reductions of certain air toxics in the St. Louis metropolitan area, with an emphasis on community involvement in the planning process.

Additional regulations impacting stationary sources that have been finalized over the last few years include and that will result in significant reductions in air emissions, include the following:

- Reciprocating Internal Combustion Engine (RICE) rule: Designed to reduce NOx emissions from affected engines and turbines.
- Regional Haze or Best Available Retrofit Technology: Targets the emissions from coal-fired power plants and other large emitters that contribute to regional haze.
- NOx Reasonably Available Control Technology (RACT): Will be affective in the states two non-attainment areas and will reduce emissions from fossil fuel fired industrial sources.
- **Consumer Products Rule:** Designed to reduce volatile organic material emissions from household consumer products such as cleaning products, personal care products and a variety of insecticides.
- Architectural and Industrial Maintenance Coatings Rule: Designed to reduce volatile organic material emissions from coatings commonly used by consumers and contrac-

tors, including exterior and interior paints, industrial maintenance coatings, wood and roof coatings, primers, and traffic paints.

Air quality modeling shows that the air quality in Illinois and the surrounding states will greatly benefit from on the books and upcoming Illinois air pollution control regulations. These regulations will complement other recent and ongoing federal rulemakings covering stationary sources. Additionally, the Agency has worked with industry and underwent permit streamlining in order to provide greater service to the public, environment, and industrial sources.

Illinois air pollution control policies and programs are clearly showing positive results in controlling and reducing air pollution. The Illinois EPA fully expects the downward trend in air pollution to continue. The above measures are just a few examples of regulatory rules recently adopted that will lead to cleaner air, enhanced public health, and reduced toxic mercury levels in Illinois waters and fish.

To address the emissions from mobile sources, the Illinois EPA continues to implement the Vehicle Emissions Testing Program in the greater Chicago and East St. Louis areas of Illinois. As technology used to test vehicle emissions systems has evolved over the decades, so has the Illinois Vehicle Emissions Testing Program. On-Board Diagnostic (OBD) is an emissions control system that monitors the various emission control systems used on vehicles and identifies problems that could cause the vehicle to become an excessive polluter. Through OBD testing, the Agency is able to retrieve specific information from the vehicle related to the various components and systems monitored. The Vehicle Emissions Testing Program performed approximately 3.69 million emissions test during 2009 and 2010.

The Vehicle Emissions Testing Program has a strong emphasis on customer service and motorist convenience distributing an average of two million test notices annually and operating telephone call centers to respond to inquiries about the program. The program offers full-service centralized testing stations as well as 5 OBD-only centralized stations and more than 30 test and repair stations, operated by franchised repair shops. Additionally, the program includes a Repair Industry Outreach unit that provides operation and administrative support to the repair industry including a quarterly electronic newsletter, free seminars, test station tours, a Repair Effectiveness Index for individual repair shops and support to repair technicians.

Illinois EPA and other state agencies also continued to implement its commitment to making Illinois a leader in the use of cleaner, renewable fuels, including Green Fleets rebates and educational programs for E-85 ethanol, B-20 biodiesel, and other alternate fuels. Implementation of the Illinois Green Fleets Initiative to reduce mobile source emissions have resulted a number of achievements including:

- Reducing emissions from diesel school buses;
- Educating school districts, trucking companies and other organizations about reducing emissions and idling from diesel powered vehicles;
- Encouraging the use of pollution control retrofit devices, construction equipment on IDOT projects, and other diesel vehicles;
- Promoting clean burning alternate fuels;
- Idling Restrictions

The national award-winning "Green Pays on Green Days" air pollution awareness campaigns that signs up citizens to reduce pollution in the Chicago metropolitan area continues to be a success, signing up record numbers of participants who are taking step to improve air quality and become eligible to win a new hybrid electric vehicle.

Landmark Air Emission Reduction Agreements Made Under the Illinois Mercury Rule and Clean Air Interstate Rule Continue to Show Progress

Illinois Mercury Rule

- The Illinois mercury rule was final and effective in December 2007.
- The Illinois mercury rule requires greater reductions of mercury more quickly than the, now vacated, federal Clean Air Mercury Rule (CAMR).
- The Illinois Rule is based on findings that there exists mercury control technology that is both technically feasible and economically reasonable.
- Requires significant reduction in mercury emissions from most units by July 1, 2009.
- Rule provides significant flexibility in order to reduce the costs of compliance and the risk of noncompliance for power plants.
- Mercury emissions may be reduced through the application of control technology specifically designed to control mercury (e.g., activated carbon injection), or through co-benefit from other control technologies designed to control Sulfur Dioxide (SO2), Nitrogen Oxide (NOx), and Particulate Matter (PM).
- All Illinois coal-fired units are now controlling mercury emissions, except for a few very small units.

Multi-Pollutant Standards (MPS and CPS) Large companies that chose to voluntarily comply with the MPS and CPS are Ameren, Dynegy and Midwest Generation. These 3 companies represent 88 percent of Illinois' 17,007 Megawatts of coal-fired electric generating capacity and account for hundreds of thousands of tons of air pollution emissions each year.

The MPS and CPS provide additional flexibility in regards to mercury control based on companies achieving significant reductions in the emissions of SO2 and NOx. The amount and timing of mercury reductions for those sources that opted in to the MPS or CPS are estimated to be essentially the same, although they are not be required to comply on a 12 month rolling basis until 2015.

Sources under the MPS and CPS are expected to have mercury emission reductions that exceed even the required 90% in the Illinois mercury rule after 2015 due to the co-benefit reductions achieved from the installation of new pollution controls needed to comply with the corresponding SO2 and NOx standards.

- The rule does not allow for the trading, purchasing or the banking of mercury allowances. This ensures that the mercury reductions occur both in Illinois and at every power plant in Illinois.
- All companies that opted into the MPS and CPS are currently complying with the associated requirements.

Health Impacts of Mercury

- Mercury is a neurotoxin. Unborn children, infants and young children are at greatest risk. Fetal exposure to excessive levels of mercury has been linked to mental retardation, cerebral palsy, lower IQ, slowed motor function, deafness, blindness and other health problems.
- Recent studies indicate that as many as 10 percent of children born in the United States have been exposed to excessive levels of mercury in the womb.
- Because of the risk mercury poses to unborn children and infants, mercury exposure is of concern for pregnant women and women of childbearing age who may become pregnant.

Coal-Fired Power Plants and Mercury

- Illinois' 21 coal-fired power plants constitute the largest source of uncontrolled mercury emissions in the State. These power plants are scattered throughout Illinois, with many located near major bodies of water.
- Mercury emissions from coal-fired power plants are deposited into lakes and streams where they contaminate fish. Every lake, river and stream in Illinois is polluted and is under a fish advisory warning people not to eat the fish.
- Humans and wildlife are affected by eating contaminated fish.

Potential Impacts of the Illinois Mercury Rule

- Reduced risk of mercury poisoning to public and the environment.
- Mercury reductions beyond the now vacated federal CAMR will occur more quickly. CAMR had targeted reduction in Illinois mercury emissions of approximately 47 percent by 2010 and 78 percent by 2018. Illinois rule targets mercury emission reductions of 90 percent by July 1, 2009.
- Reduction of mercury levels in Illinois' lakes and streams, making fish caught in Illinois waters safer to eat.
- Possible increase in tourism and recreational fishing as mercury levels drop in fish, bringing an associated positive impact to local economies and the State overall.
- Support for existing, and potential for additional jobs, resulting from the installation and operating requirements for additional pollution control devices.
- Economic modeling projects an approximate increase in residential electric bills of less than \$1.50 per month, or \$18 per year, or about one to two percent.
- As a result of the Multi-Pollutant Standards, we also expect extremely large reductions in the emissions of SO2 and NOx. The combined reductions in SO2 and NOx are beyond that required by the now remanded federal Clean Air Interstate Rule (CAIR) for the 3 companies. Such reductions will have far reaching positive impacts to public health and the environment, not only in Illinois, but

in other nearby States where these pollutants are shown to affect the air quality via interstate pollution transport. Benefits include reductions in ground level ozone, particulate matter, and acid rain; as well as visibility improvements. Particulate matter and ground level ozone are associated with premature deaths and illnesses.

CHICAGO AREA RESIDENTS REWARDED FOR TAKING ACTION TO IMPROVE LOCAL AIR QUALITY



Since 2002, the Illinois EPA has joined the Partners for Clean Air for the annual Green Pays on Green Days program. The purpose of the program is two-fold, as a celebration of improved air quality in the Chicago area and a renewed commitment by businesses, governments and individuals to do more to reduce air pollution. Through the program, Partners for Clean Air calls on area resident to commit to voluntary actions to improve local air quality. That theme continued in 2009-2010, with the



2009 Winner Susan Adams

2010 program featuring a survey to better gauge the actions being taken by area residents. As an incentive each year, individuals choosing to take part in the program become eligible to win environmentally friendly prizes and a chance to win a Grand Prize Toyota Prius.

Green Pays on Green Days is open to residents in Cook, DuPage, Grundy, Kane, Kendall, Lake, McHenry and Will counties in Illinois, which are the areas in Northeastern Illinois that have not met national ambient air quality standards. The program encourages individuals to make small changes in their daily lives to improve air quality, while highlighting that those small changes, when combined, can have a significant impact on the overall air quality.

The 2009 Green Pays on Green Days program rewarded 50 individuals as part of the program. Each year, finalist names are drawn on days when the Chicago air quality is forecasted to be good or on "Green Days" according to the national Air Quality Index. Ms. Susan Adams of Crystal Lake was the lucky individual drawn as the Grand Prize Winner for 2009. Ms. Adams noted she was planting native landscape in her yard to reduce the need for mowing and watering.

A total of 37 individuals were invited to take part in the 2010 Green Pays on Green Days Grand Prize Drawing and Mr. Chuck Steinburg of Downers Grove was drawn as the Grand Prize Winner at the program's closing reception. Chicago's NBC5 Meteorologist Brant Miller joins the Partners for Clean air and Clean Air Superhero, Breathe Easy Man, at the Green Pays closing reception each year. The program runs annually through the summer months, which are the primary months for the summer air pollution season.

All program finalists are chosen randomly and those in attendance for each year's Grand Prize drawing have a chance to win a new Toyota Prius donated by Your Chicagoland Toyota Dealers. Green Pays on Green Days is supported by financial and product contributions from numerous Illinois businesses and organizations.

The Chicago area Partners for Clean Air coalition, chaired by the Illinois EPA, consists of businesses, health advocacy organizations, and government agencies committed to improving air quality through voluntary actions. The coalition implements the Air Pollution Action Day program to alert area businesses and residents when air quality levels reach unhealthy levels. For more information, visit www.cleantheair.org.

Illinois Green Fleets: Grants, Rebates & More



The Illinois EPA continues to enhance existing programs and promote new initiatives for clean vehicles and fuels through its Illinois Green Fleets Program. The Green Fleets initiative includes the Illinois Clean Diesel Grant Program, Illinois Alternate Fuels Rebate Program, and the Idling Campaign. Please visit our Illinois Green Fleets website at www.illinoisgreenfleets.org for more information on these and other programs.

Illinois Clean Diesel Grant Program

In 2009, the Illinois Clean School Bus Program was merged into the new Illinois Clean Diesel Grant Program. From 2003-2008, federal and private sector funding was only available for clean school bus projects under the former Illinois Clean School Bus Program. Beginning with 2009 federal funding from the U.S. EPA, clean diesel projects could include school buses, as well as delivery trucks, transit buses, public works trucks, waste haulers, long haul trucks, construction and mining equipment, locomotives, marine vessels, and most other diesel-powered vehicles or mobile equipment. The Illinois Clean Diesel Grant Program has provided over \$13 million in clean diesel grant funding for 250 projects throughout Illinois impacting over 4,800 vehicle or equipment units. The program has resulted in the purchase of several types of aftermarket products to be installed on diesel-powered vehicles or equipment to reduce emissions, especially particulate matter, and to decrease truck, bus, and locomotive engine idling. The types of products that have been funded include diesel oxidation catalysts, closed crankcase ventilation systems, auxiliary power units, directfired heaters, battery-powered air conditioning systems, diesel particulate filters, new off-road engines certified to cleaner emission standards, and diesel-hybrid trucks and buses.

The American Recovery & Reinvestment Act (ARRA, or "stimulus funding") had a great impact on the Illinois Clean Diesel Grant Program, resulting in a significant number of projects that "cleaned up" both on-road vehicles and off-road equipment and resulted in jobs created or retained throughout Illinois. All of the \$6 million the Illinois EPA received in ARRA funding was spent on 60 projects. . With the ARRA funding, 1,061 diesel-powered mobile source units were equipped with aftermarket products designed to reduce emissions, reduce idling, and improve fuel efficiency in older diesel engines. These units included:

- 416 School Buses
- 78 Delivery Trucks
- 386 Long-Haul Trucks
- 87 Local Government Trucks
- 2 Utility Trucks
- 14 Construction and Mining Equipment
- 8 Locomotives
- 52 Mass Transit Buses
- 18 Airport Service Vehicles

These diesel engines were equipped with diesel oxidation catalysts, closed crankcase ventilation systems, diesel particulate filters, auxiliary power units, engine heaters, or were replaced with new engines. The number of jobs impacted by these projects, as reported by the vendors, is 48 new or retained jobs at diesel shops throughout the state. Illinois EPA and U.S. EPA staff visited a Caterpillar dealership near Chicago at a media event for one of our projects involving the installation of new engines for several pieces of construction equipment units. These included wheel loaders, excavators, and tractors. As part of the tour, eight shop employees stopped their work on this equipment and came over to talk with us. The foreman informed us that had it not been for this large project that took several months to complete, most of these eight employees would have been laid off.

Illinois Alternate Fuels Rebate Program

The Illinois Alternate Fuels Rebate Program continues to expand. During the past three years, the program has issued over \$2.2 million in alternate fuel vehicle, conversion, and fuel rebates. To date, over 4,000 applications for nearly 8,000 alternate fuel vehicles have received rebates. The rebate amounts vary on the type of rebate being applied for, but can be up to \$4,000 per vehicle. Eligible fuels and vehicles include those that operate on natural gas, propane, E85 ethanol, biodiesel (at least 20 percent blend), and electricity. For the E85 and Biodiesel fuel rebates, the program has accounted for over 5 million gallons of E85 and over 13 million gallons of biodiesel being purchased from retail fuel stations and fleet fuel distributors in Illinois, helping to support the availability of biofuels for the general public at over 230 retail stations throughout the state.

Illinois Green Fleets Program

The Illinois Green Fleets Program now has over 100 designated "green fleets" throughout the state. Our green fleets have over 15,000 clean, alternate fuel vehicles including those that run on natural gas, propane, E85, biodiesel (B20), electricity, hybrid-electric, and hydrogen. Illinois Green Fleets are designated and recognized in public events hosted by our partnering coalitions. To apply for Illinois Green Fleet status or to see which fleets throughout the state have been designated, please go to www.illinoisgreenfleets.org.

Idling Campaign

The Illinois EPA continues to reach out to and educate school districts, local governments, trucking companies, and other organizations with larger diesel vehicles on the benefits of not idling their trucks and buses when it is not necessary. In many cases, it is still common for diesel engines to be left running while the vehicle is parked and unattended. Through the Illinois Clean Diesel Grant Program, the Agency has provided numerous grants for the purchase of idle reduction equipment to truckers, delivery truck operations, school districts, and companies with locomotives to reduce or eliminate the need to idle. Staff has also developed publications on the effects of idling, making a significant business and environmental case for turning off the engines when not in use. As a result, a number of businesses, local governments and school districts have developed idling policies or other voluntary efforts to reduce idling. For more information on idling and to see the brochures, fact sheets, and similar information involving idling and the cost to businesses, go to www.illinoisgreenfleets.org.

Vehicle Emissions Testing Program

Automobiles and trucks are one of the single greatest sources of emissions that form ground-level ozone. Driving a malfunctioning vehicle is considered to be an Illinois citizen's "most polluting" daily activity. Modern vehicles are manufactured with a vast array of emission control devices, but inadequate



On-board diagnostic testing reduces vehicle emissions.

vehicle maintenance and/or removal of these devices gave way to vehicle emissions testing programs in areas of the country with air pollution problems.

The vehicle emissions testing program identifies vehicles that do not meet federal standards and requires they be repaired before the vehicle registration can be renewed. Generally, 1996 and newer model year vehicles registered in areas of the state that are not in compliance with federal air quality standards (the greater Chicago and the greater East St. Louis areas) are tested every other year.

The technology used to test vehicle emissions systems has evolved over the decades, just as automotive technology has. Instead of measuring the amount of pollutants coming out of tailpipes, most vehicle emissions tests now consist of downloading information from the on-board diagnostic (OBD) systems required for 1996 and newer model year vehicles. OBD is an emissions control system that represents a shift to pollution prevention. OBD monitors the various emission control systems used on vehicles and identifies problem(s) that could cause the vehicle to become an excessive polluter, allowing time for repair before emissions increase.

On-Board Diagnostic (OBD) Testing

This test consists of connecting a scan tool to the standardized connector port, otherwise called a data link connector. With the engine running, the scan tool interrogates the on-board computer and retrieves specific information from the vehicle, including whether the Malfunction Indicator Lamp (MIL) on the dashboard is commanded "on" (or illuminated,) any Diagnostic Trouble Code(s) and the operational status of the various components and systems monitored.

OBD tests constitute 97percent of the tests performed. The other 3 percent of tests utilize a single-speed idle test with a gas cap pressure test. This test method is used for heavy-duty trucks that were not equipped with an OBD system when manufactured, and for a relatively small number of vehicles for which OBD testing is not possible.

During the 2009 reporting period, approximately 1.76 million vehicle emissions tests were conducted, and during the 2010 reporting period, approximately 1.93 million tests were conducted. Annual test volumes have decreased since older vehicles (model year 1995 and older) were exempted from testing requirements. These older vehicles represent a continually decreasing portion of the overall fleet of gasoline powered vehicles being driven in the ozone non-attainment areas of the state, as they age and are removed from service.

Failure rates remain significantly below the projected rates of 18-20 percent.

- In calendar year 2009, 6.2 percent of vehicles failing an initial test failed for OBD or excessive exhaust/gas cap test.
 - Of vehicles failing an idle test, 97 percent exceeded the hydrocarbon standard, and 22 percent exceeded the carbon monoxide standard.
- In calendar year 2010, 6.4 percent of vehicles failing an initial test failed for OBD or excessive exhaust, and 8.4 percent failed the gas cap test.
 - Of vehicles failing an idle test, 97 percent exceeded the hydrocarbon standard, and 29 percent exceeded the carbon monoxide standard.

Customer Service

The Illinois vehicle emissions testing program has always emphasized customer service and motorist convenience. A test notice is mailed to vehicle owners about four months before their license plates expire, letting them know that the vehicle must be tested and comply with emissions testing requirements before the license plate can be renewed. This allows ample time to test the vehicle and obtain any needed repairs. The notices were revised in July 2010 to make them more user-friendly.

- 1,926,212 notices were sent in 2009; and
- 2,220,498 notices were sent in 2010.

The Agency operates telephone call centers and maintains a website

www.IllinoisAirTeam.com to respond to inquiries about the program. Current wait times are available on toll-free phone lines, and the website provides live webcam images of the queue areas at each of the centralized testing stations. Wait times vary significantly by station, depending on the month and day of week, but overall average wait times for 2009 and 2010 were between five and six minutes.

The website also provides station location information, including a utility that locates testing stations and/or repair facilities within a selectable distance of a zip code. Maps and directions to stations are provided by means of Google maps.

Customer service representatives are available at 12 full-service testing stations during normal operating hours.

Network Design

The Agency contracted with Applus Technologies to operate the vehicle emissions testing program. The network of testing facilities includes:

- 12 full-service, high-volume, centralized stations operated by Applus;
- 5 OBD-only high-volume, centralized stations operated by Applus; and
- 30 to 40 test and repair stations, operated by franchised repair shops on a "by-appoint-ment" basis.

Motorists can choose where they would like to have their vehicle tested. Approximately 98 percent of tests are performed at the centralized stations, and 2 percent are performed at test and repair stations.

Contractor Oversight

The Agency oversees operations at the various vehicle emissions testing stations for quality assurance. State inspectors ensure that testing procedures are adhered to, and auditors ensure that certified equipment is used to test vehicles and that the equipment is properly maintained and calibrated. As part of the Agency's overall mission to reduce pollution from mobile sources, auditors also verify the presence and efficiency of vapor recovery equipment used at public fueling stations.

Repair Industry Outreach

In and of themselves, vehicle emissions tests produce few emissions reductions. Significant reductions are only realized after failed vehicles are properly repaired. The success of the program depends on the ability of the automotive repair industry to fix the failures. The Illinois EPA is committed to supporting the automotive repair industry, and established an outreach program to help ensure that failed vehicles get repaired properly.

The Repair Industry Outreach unit is a resource providing operational and administrative support for the repair industry. The unit promotes training as a key measure in assisting technicians to be able to repair failures properly on a timely basis. The unit provides:

- a quarterly electronic newsletter eAir Repair – designed specifically for the repair industry;
- a number of free seminars, covering topics such as:
 - top Illinois diagnostic trouble codes
 - re-programming the powertrain control module
 - readiness monitor challenges
 - scan tool communications
 - driveability issues
 - repair techniques for evaporative systems and mode 6 data
- test station tours;

- summaries of the data used to compile the Repair Effectiveness Index for individual repair shops;
- answers to questions unique to repair technicians.

The Repair Industry Outreach Unit also coordinates publication of the Repair Shop Report Card. The report card lists repair shops that have performed at least five emissions repairs during the previous six months and achieved at least a 75 percent effectiveness rating. It is an indication of a shop's ability to diagnose and repair vehicles that did not pass an emissions test. The Report Card is provided to motorists when their vehicle either fails a test or is rejected for OBD readiness reasons. The report card is printed quarterly.

Emissions Reductions

Overall program effectiveness is estimated using sophisticated computer modeling techniques to quantify the effect of the program on region-wide emissions of volatile organic compound (VOC) and carbon monoxide (CO) from on-road sources. Current estimates of emissions reductions attributed to the Illinois vehicle emissions testing program, using the MOBILE6.2 model, are:

- In the Chicago area for VOC:
 - 12.7 tons per day in 2009; and,
 - 10.4 tons per day in 2010.
- In the Chicago area for CO:
 - 232.0 tons per day in 2009; and,

- 176.6 tons per day in 2010.
- In the East St. Louis area for VOC:
 - 1.2 tons per day in 2009; and,
 - 1.0 tons per day in 2010.
- In the East St. Louis area for CO:
 31.7 tons per day in 2009; and,
 18.3 tons per day in 2010
 - 18.3 tons per day in 2010.

Office of Emergency Response Emergency Operations Unit

2009 - 2010 Incidents

In 2009 and 2010, Illinois EPA's Emergency Operations Unit (EOU) staff handled 1,447 and 1388 incidents respectively. These incidents were reported to the Illinois Emergency Management Agency (IEMA) which serves as the State Emergency Response Center (SERC) for Illinois.

In 2009, 63 incidents prompted the evacuation of 484 people, 9 of which involved 18 fatalities and 58 incidents resulting in 113 injuries. The majority of incidents were -1,247 – leak or a spill, while 33 – fire or explosion, 137 – gas or vapor cloud, and 127 – involve water contamination. In 2010, 39 incidents prompted the evacuation of 569 people, 13 of which involved 17 fatalities and 77 incidents resulting in 90 injuries. The majority of incidents were -1,157 – leak or a spill, while 44 – fire or explosion, 148 – gas or vapor cloud, and 131 – involved water contamination.

EXAMPLES OF SIGNIFICANT EVENTS:

Petroleum Pipeline Releases

In September 2010, a 34-inch Enbridge Pipeline, Line 6A, ruptured along Parkwood Avenue, Romeoville (Will Co.) resulted of crude oil. Line 6A is 670,000 barrel-per-day (42-gallons in one (1) barrel) pipeline transporting light synthetics, heavy and medium crude oil from Superior, Wisconsin, to Griffith, Indiana. It is part of Enbridge Energy, Limited Partnership's Lakehead Pipeline System. Populated areas, soils, storm and sanitary sewers, surface impoundment were impacted and area groundwater, nearby Romeoville Prairie Nature Preserve and the Des Plaines River threatened. Illinois EPA staff responded to the scene along with the USEPA Region 5 On-Scene Coordinator (OSC) and US DOT personnel. The Illinois EPA staff was involved in assuring continued safety of the community's potable water system; assessment of the impacts to the Village of Romeoville sewage collection system and Romeoville South Plant facilities: and coordination with the Illinois Attorney General's Office on enforcement, including contacting the Illinois Nature Preserves Commission on alleged violations of the Illinois Natural Areas Preservation Act



Railroad Derailments and Yard Releases

During the 2009-2010 period, several train derailments and rail yard releases occurred. They included:

In November 2009, Illinois EPA staff responded to a release of hydrochloric acid from a Norfolk Southern Railroad tanker car in the Decatur rail yard. In coordination with Decatur Fire Department Hazardous Material personnel, who conducted thermal imaging of the leaking rail car to verify its integrity, it was relocated to another location in the yard for further assessment. Air monitoring was conducted and neutralizing agent applied to minimize migration beyond the immediate impacted area.

During the period, there were also numerous accidents involving trains and vehicles at road crossings that prompted Illinois EPA response to the scene to direct cleanup of the immediate areas and any waterways impacted.



Facility Fires

In November 2010, a fire was reported at Euclid Chemical Company in Sheffield, Illinois. The cause of the fire currently remains unknown. According to the company's website, the Sheffield facility is involved in the manufacturing of environmentally-friendly coatings for residential and commercial flooring applications, joint filler, sealers and bonding agents. Firefighters responded to the incident and began fighting the fire with water. Fire fighting operations with water ceased approximately one hour after little progress was made. Segments of U.S. Route 40 and the intersection of U.S. Route 6 and U.S. Route 34 were shut down for a period. Illinois EPA responded to the scene and provided oversight of defensive measure to minimize off-site soil and water impacts. With the support of USEPA personnel, ambient air monitoring was conducted to insure safety of the surrounding population while the fire continued to burn and smolder. Illinois EPA subsequently engaged in cleanup oversight and subsurface investigations.



In September 2010, the Darling International animal feed processing facility located in Lynn Center (Henry Co.) experienced a fire in one of its warehouse buildings. The warehouse contained approximately 3,000-tons of animal proteins and bone meal. Twenty-six fire departments responded to the call and applied estimated 200,000-gallons of water onto the fire and nearby structures. Fire water runoff discharged to a ditch adjacent to the property. The reddish-brown runoff water carried high de-oxygenating capacity that impacted water quality and produced a fish kill in the unnamed tributary to Edwards River. Illinois EPA responded to the site and amongst other



activities, assessed impacted surface waters including collection of water quality samples. Staffs also coordinated with the Illinois Department of Natural Resources on the fish kill investigation. The Illinois EPA also were involved is the investigation as to the cause of the release, measures need to prevent a similar release in the future, and improvements to the facilities response to the release.



Maritime Incidents

In January 2009, Chicago Police reported a sunken boat at the River City Marina located on the South Branch of the Chicago River to the National Response Center. After consult with Illinois EPA, the U.S. Coast Guard called USEPA Region 5 Emergency Response Branch to instigate actions to remove the boat and address any oil spills (or potential of) into the Chicago River. USEPA tracked down and contacted the boat owner and River City Marina and worked with them to ensure that containment boom was installed and a qualified contractor was hired to conduct the removal as soon as possible. Two days later, the boat was successfully raised by the owner's contractors and subsequently towed to a nearby service facility for repairs. Although the contractors suspected a bilge pump failure as the potential cause of the sinking, there were no oil spills observed during the removal.



Waterway Impacts

In February 2009, a control system malfunction resulted in an overflow of the oil/water separator at the Caterpillar Inc. - Rockdale facility (Will Co.) that resulted in an estimated 65,000-gallon release from their on-site waste treatment facility. An estimated 10% entered the Des Plaines River that prompted the U.S. Coast Guard to halt River traffic to ensure response personnel safety and not to interfere with on-going cleanup efforts. Illinois EPA staff responded to the scene, provided oversight of the recovery operations and with the assistance of the USEPA and IAGO, conducted a comprehensive investigation of the waste treatment facility aimed at determining whether modifications of the mechanical, electrical and/or staff procedures are necessary to avert a similar occurrence.

In December 2010, an explosion within the sludge processing system rocked the Kankakee River Metropolitan Agency's (KRMD) Wastewater Treatment Facility's (WWTF) in Kankakee (Will Co.). The result was a release of bio-solids into the Kankakee River that impacted water quality and threatened the City of Wilmington Public Water Supply (PWS). The Illinois EPA responded to the scene and provided oversight on the remediation activities including dialogued with the Wilmington PWS on precautionary measures to maintain potable water quality. Subsequent activities included directing the facility to conduct a causation analysis and scrutinized the KRMD plan for WWTF interim operations till the damaged facilities are repaired.



Transportation Accidents

In December 2010, weather conditions prompted multiple vehicular accidents along Interstate 57 near Mattoon (Coles Co.). In particular, one involved a tour bus and a tractor/trailer hauling 51,000-pounds of powdered magnesium. The Mid-Ohio Valley bulk truck landed upside down in the medium with estimated 800-pounds of magnesium spilled. Illinois EPA responded the scene and directed the recovery operations as magnesium powder can explode if it comes into contact with water, or a spark, or from friction such as vacuuming the free product.



During the period, numerous vehicular accidents involved diesel fuel releases from semitruck saddle tanks that prompted Illinois EPA response to the scene to direct cleanup of the immediate areas and any waterways impacted.

Crude Oil Operations

During the period, the Illinois EPA also responded to several incidents primarily in the southern portion of the State that involved the release of crude oil and salt brine from oil pumping, flow lines, storage facilities and saltwater reinjection systems. During the course, the Illinois EPA performed investigations as to the cause of the releases; measures by the companies needed to prevent a similar release in the future; and improvements to their reporting and appropriate, timely response actions to a release. As the Illinois Department of Natural Resources' (IDNR) Mines & Minerals have regulatory oversight, Illinois EPA works cooperatively with IDNR to reduce the environmental impacts.



Agricultural Industry

During the period, there were numerous accidents involving farm vehicles transporting anhydrous ammonia nurse tanks on Illinois roads and farm fields. For example, in spring 2010, during a 3-week period, 50 incidents were reported to the Illinois Emergency Management Agency's "911" center. The resulting ammonia cloud caused respiratory problems, forced evacuations, impacted waterways, damaged crops, killed vegetation, halted traffic, etc. In response, the Illinois EPA, Illinois Department of Agriculture and the Illinois Fertilizer and Chemical Association (IFCA) representatives worked cooperatively to identify common issues; pursue preventative measures; and IFCA develop communication tools for the farmer, retailer and general public to enhance awareness.



In April 2010, a custom agricultural chemical applicator near Raymond (Montgomery Co.) contacted an electrical power line and caught fire. Illinois EPA responded to the scene and directed cleanup of the agricultural chemicals along with diesel fuel and other engine lubricants that impacted the farm field and threatened a nearby residence private well.

Weather Related Responses

During the period, severe weather including flooding, tornados and ice storms caused environmental issues across the State. Where necessary, the Illinois EPA provided field response; staffed the State Incident Response Center; monitored public water supplies and wastewater collection and treatment facilities; facilitated prompt debris disposal; and coordinated with local officials, other State agencies, and Federal counterparts.



Flood Impacted Crude Oil Tank Battery

Illinois EPA Division of Laboratories Provides Environmental Sample Analysis

During calendar years 2009 and 2010 the Illinois EPA Division of Laboratories (DOL) reported nearly 200,000 analyses from 47 different tests offered by the laboratory in support of Agency Programs. DOL purchased and installed new equipment and saw the retirement of two long time employees. In addition DOL changed the focus of the laboratory accreditation program, completed special projects in support of the Agency, brought previously contracted work in-house, and upgraded computer systems.

- DOL completed over 100,000 analyses in 2009 and nearly 99,000 analyses in 2010. The testing offered by DOL includes 47 different tests and covers both organic and inorganic analyses.
- DOL purchased and installed a new Gas Chromatograph/Mass Spectrometer for the analysis of volatile organic compounds, an Inductively Coupled Plasma/Mass Spectrometer for the analysis of metals and a Gas Chromatograph for pesticide analysis. Peripheral equipment was also purchased including an autosampler for the analysis of volatile organic compounds, and an air compressor and water chiller used in conjunction with metals analysis.
- Ron Turpin (Manager of the Quality Assurance Section) and Lily Chu (Supervisor of the Organic Analysis Unit) both retired in 2010. Ron worked for DOL in various capacities for over 35 years and Lily was a chemist and supervisor for over 25 years.
- With the retirement of Ron Turpin, the laboratory accreditation program suspended out of state accreditation and began concentration solely on in-state laboratory accreditation.
- DOL engaged in special projects to meet the needs of the Agency including:
 - A thorough review and revising of method detection limits in an effort to drive the reporting limits for critical methods as low as allowable utilizing the existing equipment.

- A special project to determine Selenium levels in fish.
- The moving of the fish tissue bank.
- Consolidation of warehouse space.
- DOL was able to bring in-house work that had been previously sent to commercial laboratories. This was the final phase of the integration of the tests formerly done in the now closed Champaign laboratory into the Springfield facility.
- In conjunction with Information Technology staff, DOL completed the transition of the Laboratory Information Management System (LIMS) from an Oracle database to an SQL database and began the process of replacing a 15 year old data system used to process all of DOL's organic analyses.



IEPA labs analyze thousands of samples each year.

ENFORCEMENT PROGRAM HELPS INSURE LAWS TO PROTECT THE ENVIRONMENT ARE CARRIED OUT

The Illinois EPA Division of Legal Counsel works with other Agency staff to enforce state and federal laws protecting the environment, including making referrals to the Illinois Attorney General's Office for actions before the Illinois Pollution Control Board or state courts that potentially can result in penalties, and working with the Attorney General's Office on negotiating Supplemental Environmental Projects that range from environmental protection and conservation projects benefitting local communities to installing additional pollution control equipment at a facility. Agency attorneys also work with agency staff on compliance and rulemaking procedures.

In 2009, a total of 158 cases were referred to the Attorney General and 161 enforcement orders were finalized, with penalties totaling \$4,892,555 and \$127,000 worth of SEPs.

Significant Cases/2009

People v. Community Landfill Company Inc. and City of Morris PCB 03-191 (Bureau of Land)

This matter was filed before the Board on April 17, 2003, and alleged the failure of CLC

and the City failure to maintain financial assurance for closure and future maintenance of the Landfill. Financial assurance in the amount of \$17,427,366.00 was required by the City's landfill permit and by Illinois Pollution Control Board (PCB) regulations. Illinois EPA had notified CLC and Morris in November 2000 that they were in violation for failure to have compliant financial assurance in place, but neither CLC nor the City responded to the violation notice. However, they continued dumping waste at the landfill, despite having neither financial assurance nor a valid operating permit. Illinois EPA referred the matter to the Illinois Attorney General's Office (AGO) for enforcement in 2003. On February 16, 2006, the Board found CLC and the City in violation, as alleged by the State. Hearing on remedy was held on September 11-12, 2007, after neither Respondent took any action to correct the violations.

On June 18, 2009, the Board issued its Final Order. The Board assessed a civil penalty of \$399,308.98 against the City of Morris, representing recovery of dumping royalties received by the City during the period it operated in knowing violation. The Board also assessed a civil penalty of \$1,059,534.70 against CLC, representing recovery of the economic benefit of violation from failing to provide financial assurance from 2000 through 2007. The Board ordered CLC and the City to provide financial assurance for closure and post-closure of the Landfill in the amount of \$17,427,366.00, and to provide an update of closure and post-closure care costs within 120 days of the Board's Order. The Board also ordered CLC and Morris to stop dumping waste at the Landfill.

People v. Buckeye Partners L.P. 2:07-cv-02052-MPM-DGB Office of Emergency Response and Bureau of Water

The State entered into a federal Consent Decree with Buckeye Partners on October 7, 2009. The C.D. was entered by the U.S. District Court for the Central District of Illinois. The case was filed under the federal Oil Pollution Act and also involved pendent state claims under the EP Act, the Illinois Oil Spill Responders Liability Act and the Gasoline Storage Act. The C.D. resolved claims of the State for nine petroleum release incidents throughout multiple counties which occurred from 2003 through 2007. Three incidents occurred at Buckeye's bulk storage terminals, while six occurred as the result of pipeline releases. Buckeye, one of the largest petroleum transportation and terminal companies operating in Illinois, had purchased deteriorated facilities from Transmontaigne and Shell. Buckeye paid a civil penalty of \$354,540 to resolve the claims as to all nine release incidents. Buckeye also paid \$29, 581.01 to the Oil Spill Response Fund for recovery of past costs incurred by OER, as well as \$53,263,54 to the Hazardous Waste Fund for recovery of past costs incurred by BOL. The C.D. requires continued investigation and clean up of several of the sites;

improvements to cathodic protection systems at the terminals to prevent tank corrosion; enhanced reporting of release incidents; and prospective cost recovery for Agency costs incurred after entry of the C.D.

People v. Flint Hills Resources LP 08 CH 1232 (Bureau of Air)

The Illinois EPA referred this source to the AGO on February 21, 2007 for violations of the Act and numerous Board and federal regulations, including excess VOM and PM emissions, failure to control VOM in accordance with Board and federal regulations, discharge of wastewater into uncontrolled drains, failure to conduct monitoring, failure to keep records, and failure to comply with NSR. The Illinois EPA requested that Flint Hills submit a detailed plan to achieve short and long-term compliance with permit limits and the 8 lb/hour rule, submit detailed information regarding the sampling of wastewater streams from the MAN unit and vent scrubber ND-1500, submit a sample of required leak monitoring, submit results of emissions testing of control device for tank HF-1404, submit results of testing on vent scrubber ND-1500 subsequent to installation of electric chiller, submit results of September 2006 testing of unit MB-1050, commit to comply with all requirements of the CAAPP permit and applicable regulations, and pay a minimum civil penalty based on the economic benefit of noncompliance.

On May 20, 2009, the Illinois EPA signed a Consent Order with the source. As the source had returned to compliance with the Act and applicable regulations, no technical relief was necessary. Flint Hills paid a civil penalty of \$85,000 and committed to perform a Supplemental Environmental Project (SEP). The SEP consisted of payment of a \$50,000 contribution to the Channahon Odor Alert Network.

In 2010, there were 156 referrals to the Attorney General's Office and 150 orders were entered involving total penalties of \$5,182,108 and SEPs of \$637,133.

Significant Cases/2010

People v. Congress Development Company John Sexton Sand & Gravel Corp., Allied Waste Transportation, Inc., and Harry Henderson 06 CH 1438 (Bureau of Air, Bureau of Land, and Office of Emergency Response)

On August 17, 2010, a Consent Order was entered by the Cook County Circuit Court resolving this case, which arose from an old landfill located in a densely populated area. The landfill's gas collection and control system and leachate management system had been largely ineffective, resulting in such problems as extensive odors, off-site migration of potentially explosive gases to structures and sewers, and leachate seeps and geysers. Following the conduct of extensive work under three previous agreed orders which improved the functioning of the gas collection and leachate management systems, the State and the Congress Defendants (Congress Development Co., Allied Waste and John Sexton Sand and Gravel) reached agreement on this final Consent Order to resolve the State's allegations of extensive violations and to bring the landfill into ultimate compliance. The C.O. provides for the payment of a \$1million civil penalty and payments of \$100,000 each to the Agency and IAGO for recoupment of past staff costs. The C.O. also requires the submission of an extensive, multi-part landfill compliance plan; this plan addresses landfill settlement, landfill gas and air quality, landfill monitoring and corrective action, leachate management, management of surface water and groundwater assessment and corrective action. Many of the portions of the landfill compliance plan will contain language that, once approved, will ultimately go into BOA and BOL permits. The C.O. includes aggressive compliance deadlines; the vast majority of landfill gas and leachate-related violations must be corrected by the end of 2013 (a final replacement cover will not be mandated until 2020, however, largely due to the expected significant settlement of the waste mass). The Defendants are required to pay for a consultant familiar with multi-media landfill compliance issues to assist the State in oversight of the work. The Defendants are also required to reimburse the Agency for Office of Community Relations activities.

People v. Toyal, Inc. f/k/a Alcan-Toyo America, Inc. PCB 00-211 (Bureau of Air)

On July 15, 2010, the Pollution Control Board issued an order, which among other things assessed a civil penalty of \$716,440, of which \$316, 440 was attributable to the economic benefit of delayed capital expenditures. The order followed a December 2009 hearing. Toyal operates an aluminum products manufacturing facility. Toyal failed to control VOM emissions in violation of the Boards 218 Subpart TT rules for at least eight years. The violations were undisputed, but disagreement over an appropriate penalty forced the matter to hearing. Gary Styzens was the sole agency witness to testify. The Board found his testimony credible and convincing and awarded the precise penalty the State had sought in the matter.

People v. Exelon Corporation, Commonwealth Edison Company, and Exelon Generation Company LLC 06 MR 248 (Bureau of Water)

The March 11, 2010 consent order concerning Exelon Corporation's Braidwood nuclear generating facility requires Exelon to address past releases of wastewater, including radioactive tritium, and take steps to prevent future releases from its facility. To address past violations Exelon must pump groundwater contaminated with tritium from one portion of its site to draw back the plume of contaminated groundwater from offsite areas. Exelon was ordered to perform a number of studies of groundwater in and around a number of the seven vacuum breakers along the nearly seven mile long effluent discharge line for the facility to determine the presence and extent of any contamination. Exelon was further required to modify its vacuum breakers to prevent the release of wastewater to the ground and provide remote monitoring equipment at the breakers to warn operators of any releases. Exelon paid a \$608,000.00 civil penalty for its past violations to the State and County and provided \$392,000.00 to the Forest Preserve District of Will County to assist in the restoration of the Braidwood Dunes and Savanna Nature Preserve area located in Will County.

Copies of Illinois environmental enforcement orders back to 2002 can be viewed on the Illinois EPA web site at www.epa.state.il.us/ enforcement/orders/

New Illinois Environmental Laws Enacted in 2009-2010

New laws enacted by the Illinois General Assembly and signed by Governor Pat Quinn included measures that expanded protection of community drinking water supplies, encouraged expanded use of green infrastructure to reduce storm water runoff, expanded regulation of the disposal of clean construction and demolition debris, increasing recycling of electronic product and safe disposal of unwanted medications. Other new laws included additional restrictions on mercury-containing products and new bans on cadmium in products, and regulatory frameworks to address the environmental impacts of new energy technologies, including gasification, biomass and carbon sequestration.

Drinking Water and Water Quality Legislation

P.A. 96-603/HB 4021. *Signed into law on August 24, 2009; effective August 24, 2009*. Amends the Environmental Protection Act. The original, underlying legislation requires the Illinois EPA to provide notice under the Environmental Protection Act's Right-to-Know provisions to the affected public whenever the public is at risk due to a release of contaminants that exceeds the vapor intrusion cleanup standards adopted by the Illinois Pollution Control Board.

The second part of this bill makes several changes to the EPAct to strengthen the Illinois EPA's public notice responsibilities regarding contaminated community drinking water systems, as well as to strengthen the Agency's enforcement powers regarding such water systems as follows:

1. Requires owners or operators of public water supplies to maintain on their premises for Agency inspection all records, reports, and other documents required for the operation of the public water supply for a minimum of 10 years, including but not limited to all billing records and other documents related to the purchase of water from other public water supplies.

- Requires the Illinois EPA to provide public notice within 2 days, via press release and the posting of information on the Agency's website, if: 1) the Agency refers a community water system-related matter to the Attorney General's Office for enforcement;
 the Agency issues a seal order for such a public water system facility; or 3) the Agency determines that there exists any groundwater contamination that poses a threat of exposure to the public above the Class I groundwater standards.
- 3. Requires the Illinois EPA to provide the written notice described above to the public water system, as well as to all community water systems connected to the community water system at issue, within 5 days of: 1) the Illinois EPA referring a community water supply-related matter to the Attorney General's Office for enforcement; 2) the Agency issuing a seal order for the public water supply facility; or 3) the Agency determines that there exists any groundwater contamination that poses a threat of exposure to the public above the Class I groundwater standards, regardless of whether or not the threat of exposure has been eliminated. Sets forth the form and content of such notice to be sent.
- 4. Within 5 business days of receiving such a

notice from the Agency, requires the community water system to provide notice (either by first-class mail or email, or, if approved by the Agency, by postcard, email, text message, or telephone) to all of its affected customers as well as to the owners and operators of any connected community water systems. Where the notice sent is not written, requires the community water system to include a copy of the notice sent by the Agency to its customers in their next water bills. Sets forth the form and content of such notice to be sent. Within 7 days after sending its customers the notice, requires the public water supply to provide proof to the Agency that it has done so.

5. Makes it Class 4 felony for any person to knowingly make any false, fictitious, or fraudulent or material statement (either orally or in writing) to either the Illinois EPA or a unit of local government that has a delegation agreement with the Agency that is used for the purpose of compliance with any provision of the EPAct, any federal law or regulation for which the Agency has responsibility for enforcing, or any permit condition there under. Makes any such second or subsequent conviction of such an offense a Class 3 felony.

P.A. 96-1366/SB 3070. *Signed into law on July 28, 2010; effective July 28, 2010.* Requires public water supplies to submit a corrective action plan to the Illinois EPA upon

the Agency's issuing a right-to-know notice upon verifying that the finished public water has exceeded 50 percent of the Maximum Contaminant Level for volatile organic compounds. Requires the response plan to include periodic sampling to measure and verify the effectiveness of the response plan, but also requires the Illinois EPA to take into account the technical feasibility and economic reasonableness of the response plane in approving, modifying, or denying the response plan.

P.A. 96-801/HB 170. Amends the Private Sewage Disposal Licensing Act and the Environmental Protection Act. Beginning January 1, 2013, prohibits the installation of surface discharging private sewage disposal systems that discharge into the waters of the United States without the issuance of a cover letter under a National Pollutant Discharge Elimination System (NPDES) permit issued by the Illinois EPA, or the installation lies within a jurisdiction in which the local public health department has a general NPDES permit issued by the Illinois EPA.

P.A. 96-917/HB 5226. *Signed into law June 9, 2010; effective June 9, 2010*. Amends the Environmental Protection Act. Provides authorization for the use of additional subsidization, including the use of principal forgiveness, negative interest rates, and grants, in the Illinois EPA's State Revolving Fund (SRF) programs, the Water Pollution Control (WPCLP), and Public Water Supply (PWSLP)

Loan Programs. Provides authorization for the use of Loan Support Program funds for development of both the Water Pollution Control and Public Water Supply Loan Programs. Also requires the Agency to utilize a portion of its water loan programs to meet the federal State Revolving Fund grant requirements for a green project reserve (a reserve for projects that specifically utilize green infrastructure, including but not limited to the installation of water meters, product retrofits, water and energy efficiency improvements, and other environmentally innovative activities).

P.A. 96-26/SB 1489. Signed into law on June 30, 2009; effective June 30, 2009. Creates the Green Infrastructure for Clean Water Act. By June 30, 2010, requires the Illinois EPA, in consultation with the Department of Natural Resources (DNR), the Department of Transportation (IDOT), stormwater management agencies, and other interested parties that the Agency deems appropriate to include, to submit a report to the Governor and the General Assembly that reviews the latest available scientific research and institutional knowledge to evaluate and document the following: 1) the nature and extent of stormwater impacts on water quality in Illinois watersheds; 2) potential urban stormwater standards to address flooding, water pollution, stream erosion, habitat quality, and the effectiveness of green infrastructure practices to achieve such standards; 3) the prevalence of green infrastructure use in Illinois; 4) the costs and

benefits of green versus grey infrastructure; 5) existing and potential new urban stormwater management regulatory programs, methods, and feasibility of integrating a state program with existing and potential regional and local programs in Illinois; 6) findings and recommendations for adopting an urban stormwater management regulatory program which includes such standards and encourages the use of green infrastructure; and 7) the feasibility and consequences of devoting 20 percent of the State's Water Revolving Program to green infrastructure water and energy efficiency on a long-term basis.

P.A. 96-471/HB 3828. Signed into law on August 14, 2009; effective August 14, 2009. Amends the Illinois Lake Management Program Act. Creates the Task Force on Conservation and Quality of the Great Lakes for the protection of the water quality and supply of the Great Lakes. Provides that the Task Force be made up of 2 Senators, 2 Representatives, one member from the National Alliance for the Great Lakes, the Executive Director of the Illinois International Port District (or designee), and four ex-officio members or their designees: one member appointed by the Governor, one by the Director of the Illinois EPA, one by the Mayor of the City of Chicago, and the one by the Director of the Department of Natural Resources (DNR). The purpose of the Task Force would be to review and discuss various topics related to the quality and supply of

Great Lakes water, such as the availability of federal project funds, water consumption and use, current and projected water levels, levels and sources of water pollution, invasive species, current laws and regulations including the Great Lakes Compact, etc. Requires the Task Force to submit an annual report to the General Assembly recommending any legislative proposals to protect the water quality and supply of the Great Lakes.

Solid Waste Disposal & Recycling Legislation

P.A. 96-489/SB 2034. Signed into law on August 14, 2009; effective August 14, 2009. Amends the Environmental Protection Act. Authorizes the Illinois EPA to issue determinations that certain materials otherwise required to be managed as waste can instead be considered non-waste if they are beneficially reused in a manner that protects human health and the environment. Requires persons applying for such "beneficial use determinations" to demonstrate that the reuse is protective of human health and the environment, and is a legitimate reuse. Provides that beneficial use determinations are effective for a period of 5 years and are automatically extended upon request unless an extension is denied by the Illinois EPA in writing. Provides for appeal of the Agency's decision to the Illinois Pollution Control Board. Excludes certain types of wastes.

P.A. 96-737/SB 2103. Signed into law on August 25, 2009; effective August 25, 2009. Amends the Environmental Protection Act. Authorizes the Illinois EPA to issue administrative citations for certain violations under the Agency's Used Tire Program. Specifically, authorizes the Agency to issue administrative citations for: 1) causing or allowing the accumulation of water in stored used tires; 2) failure of a tire retailer to collect the Tire User Fee or file a return with the Illinois Department of Revenue; or 3) transporting used or waste tires in a vehicle that is not properly registered or placarded. The penalty for a violation would be \$1,500. Exempts from the Illinois EPA's authority to issue administrative citations for tire violations for those used or waste tires located at a residential household with 12 or fewer used or waste tires on site

P.A. 96-1416/SB 3721. *Signed into law on July 30, 2010; effective July 30, 2010*. Amends the Environmental Protection Act. Requires the Illinois Pollution Control Board (IPCB) to adopt rules that define "uncontaminated soil" for purposes of clean construction or demolition debris (CCDD) and uncontaminated soil generated from construction or demolition activities. Requires the IPCB to adopt additional appropriate technical standards for CCDD fill sites, and until such rules are adopted provides additional inspection standards for material being accepted at CCDD fill sites. Among other things, the technical standards adopted by the IPCB may include limitations on the use of recyclable concrete and asphalt as fill. Brings "soil-only" fill sites under regulation by requiring the IPCB to adopt appropriate technical standards for "soil-only" fill sites, providing interim soil inspection standards until IPCB rules are adopted, and requiring "soil-only" fill sites to register with the Illinois EPA.

Creates a state tipping fee for CCDD fill sites of 20 cents per cubic yard or 14 cents per ton of material received at such sites (approximately one-fifth of the current landfill tipping fee). Proceeds would be used by the Illinois EPA for inspection and enforcement activities related to the use of CCDD and uncontaminated soil as fill. Also authorizes local governments (counties) that have delegation agreements with the Agency to inspect CCDD fill sites to impose their own local tipping fee of up to 10 cents per cubic yard or 7 cents per ton of material received at CCDD fill sites. No state or local tipping fees would be imposed on "soil-only" sites under this bill.

Authorizes the Illinois EPA as well as those counties that have delegation agreements with the Agency to issue administrative citations (ACs) for violations.

P.A. 96-611/SB 125. *Signed into law on August 24, 2009; effective August 24, 2009.* Amends the Environmental Protection Act (EPAct). Excludes the portion of any site or facility accepting exclusively general construction debris, located in a county with a population over 500,000 (now, 700,000) from the local siting requirement. This effectively adds Lake County to Cook and DuPage Counties as the counties in the State exempt from local siting for such facilities.

In addition, requires any new (not in existence on the effective date of this bill) general construction debris facilities throughout the State to obtain a permit from the Illinois EPA. Clarifies that nothing in the bill would remove any liability for any such facility, operation, or site operating without a permit prior to the immediate effective date of this bill. Under prior law, all such facilities in the State other than those in Cook and DuPage Counties were required to obtain a permit from the Illinois EPA; this law makes the permitting requirement statewide.

P.A. 96-1068/SB 2490. *Signed into law on July 16, 2010; effective July 16, 2010*. Amends the Environmental Protection Act. Expands the number of counties where facilities that accept exclusively general construction and demolition debris are exempt from siting as pollution control facilities. The current siting exemption pertains only to Cook, DuPage, Lake, and Will Counties. By amending this section of the EPAct to exempt such facilities in any counties that are contiguous to a county with a population greater than 3,000,000 (Cook County), this bill would effectively also exempt such facilities located in Kane and McHenry Counties from having to go through the local sing process.

P.A. 96-235/HB 266. Signed into law on August 11, 2009; effective August 11, 2009. Amends the Environmental Protection Act. Provides that facilities that receive, process, and recycle construction and demolition waste (C&D) can take credit for the wood waste that they recover from the waste stream and ultimately market the material for use as a fuel in a permitted wood fired power plant. Currently C&D facilities are required to recycle 75 percent of the waste they receive in order to maintain eligibility for exemptions from the local siting requirement as well as the requirement to obtain an Illinois EPA solid waste permit. Since burning wood for energy recovery is not, by definition, recycling, this bill modifies Section 22.38 of the Act so that a facility could meet the 75 percent requirement by either recycling or processing waste wood into "recovered wood that is processed for fuel," or both.

P.A. 96-449/HB 789. Signed into law on August 14, 2009; effective August 14, 2009. Amends the Public Utilities Act. Extends from February 2009 until January 2013 the electricity surcharge paid by the Robbins incinerator to the Village of Robbins, and clarifies that the Village of Robbins may use such funds for the cleanup of open dumping from vacant properties and the removal of structures condemned by the Village.

P.A. 96-418/SB 99. Signed into law on August 13, 2009; effective January 1, 2010. Amends the Environmental Protection Act. Creates a



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definition for "food scrap." Exempts from local siting certain sites used to compost food scrap, livestock waste, crop residue, uncontaminated wood waste, or paper waste. Sets forth requirements sites must meet in order to obtain the exemption. Clarifies that financial assurance plans for organic waste composting operations may include a performance bond or other security. Amends the definition of "organic waste" to clarify that it includes food scrap, livestock waste, crop residue, and paper waste.

P.A. 96-1154/HB 5907. *Signed into law on July 21, 2010; effective July 21, 2010*. Amends the Electronic Products Recycling and Reuse Act. Requires each television manufacturer to submit an estimate of the total weight of televisions sold under its brand to individuals at retail in the State (rather than the actual total total

weight of its televisions sold under its brand to individuals at retail in the State). Specifies that the formula used to determine the annual total weight of televisions sold in Illinois shall be derived by one of two methods, the first being the manufacturer's actual sales report to the retailers, OR the national sales data reports for televisions pro-rated to Illinois by dividing the national total by the population of Illinois. Reduces from \$2,000 per year to \$500 per year the electronics recycler fee for recyclers and refurbishers whose combined total weight of electronics devices is less than 1,000 tons per year. Makes a technical correction to clarify that printers are covered by the Electronic Products Recycling and Reuse Act.

P.A. 96-77/SB 1932. *Signed into law July 24, 2009; effective July 24, 2009.* Amends the Illinois Solid Waste Management Act. Requires all state agencies to use, to the maximum extent feasible, compost materials in all land maintenance activities that are to be paid for with public funds. Previously, state agencies must only "give due consideration and preference to the use of compost."

Pharmaceutical & Household Hazardous Waste Collection Initiatives

P.A. 96-121/SB 178. Signed into law on August 4, 2009; effective August 4, 2009. Amends the Environmental Protection Act. Authorizes "household waste drop-off-points" for the collection of certain types of household waste, including pharmaceutical products. Specifically excludes controlled substances, and requires containers in which pharmaceutical products are collected to be clearly marked "No Controlled Substances." Sets forth requirements for such drop-off points and authorizes the Illinois EPA to approve one-day collection events for household waste and sets forth requirements for such collection events.

Also authorizes the Illinois EPA to adopt rules governing the operation of voluntary only permanent drop-off points, but clarifies that that places accepting prescription pharmaceutical products must also sell or distribute prescription pharmaceutical products. Exempts drop-off points and one-day collection events from permitting. Also exempts from permitting one-day collection events operated by the Illinois EPA.

Requires the Illinois EPA, in conjunction with the Department of Public Health (IDPH), to develop and implement a public information program regarding drop-off points that accept pharmaceutical products. Requires the Illinois EPA to develop and make signs available providing information on the disposal of unused pharmaceutical products.

P.A. 96-221/SB 1919. *Signed into law on August 10, 2009; effective January 1, 2010*. Creates the Safe Pharmaceutical Disposal Act. Prohibits any health care institution or any of its employees, staff, or contractors acting under the supervision of the institution, from flushing any unused medications into a sewage collection system or septic system under penalty of a \$500 fine for a petty offense. Exempts from the ban medications contained in intravenous fluids (IVs), syringes, and transdermal patches. For nursing homes, also exempts from the ban any controlled substances until such time as the federal Drug Enforcement Agency (DEA) adopts regulations that permit such facilities to dispose of controlled substances by an alternative means. Requires such facilities to modify their written medical protocols to be consistent with the requirements of this bill. Provides that fines on facilities regulated under the Nursing Home Care Act be deposited into the Department of Public Health's (IDPH) Long Term Care Monitor/Receiver Fund, and that fines on all other health care facilities be deposited into the Environmental Protection Trust Fund

P.A. 96-369/HB 658. *Signed into law on August 13, 2009; effective August 13, 2009*. Amends the Environmental Protection Act. Creates the Collaborative on Environmentally Safe Disposal of Pharmaceuticals. The Collaborative would be directed to develop an organization that will produce educational materials for the public and assist in promoting the expansion of a network of pharmaceutical collection centers throughout the State. By December 31, 2010, the Collaborative would also be required to develop a report on the program's development and recommendations for furthering safe disposal of pharmaceuticals.

Leaking Underground Storage Tank (LUST) Legislation

P.A. 96-161/HB 75. *Signed into law on August 10, 2009; effective August 10, 2009*. Amends the Motor Fuel Tax Law and the Environmental Impact Fee Law. Extends by 12 years (from January 1, 2013 until January 1, 2025) the current 3/10 of one cent per gallon Motor Fuel Tax specifically earmarked for the Leaking Underground Storage Tank (LUST) Fund, as well as the current 8/10 of one cent per gallon Environmental Impact Fee imposed on the receivers of motor fuel, also deposited into the LUST Fund.

HJR 39. Creates the Underground Storage Tank Task Force to study the problems facing the Leaking Underground Storage Tank (LUST) Fund. Requires the Task Force to make recommendations on proposed solutions to the significant problems facing the LUST program and the LUST Fund, and to submit a report of its findings to the Governor and the General Assembly by December 31, 2009.

P.A. 96-908/SB 3320. *Signed into law June 7, 2010; effective June 7, 2010*. Amends Title XVI of the Environmental Protection Act that apply to petroleum underground storage tanks, as follows:

• specifies the use of the Illinois Pollution Control Board's Tiered Approach to Corrective Action Objectives (TACO) rules adopted under Title XVII of the EPAct for the purpose of payment from the Leaking Underground Storage Tank (LUST) Fund;

- sets forth bidding procedures for determining reasonable corrective action costs payable from the LUST Fund in cases where optional bidding is requested;
- authorizes up to \$10 million per year (subject to appropriation) in LUST Funds for payment of corrective action costs for legacy sites;
- streamlines the LUST Program by requiring all releases to be remediated under the most current Illinois Pollution Control Board rules;
- allows a LUST site owner to reopen a cleaned up site for which he has received a No Further Remediation (NFR) letter under the following circumstances: 1) the owner wishes to further develop the site for a use for which further cleanup is required (converting an industrial or commercial site to a residential site); 2) the groundwater ordinance to which the site was originally cleaned up to comply with changes (i.e., is made stricter); or 3) water service to the site is discontinued thereby necessitating the need for a new potable water well to be built on the site;
- allows a LUST site owner to reopen a cleaned up site for which he has received a NFR letter to pay for the disposal of soil below industrial/commercial objectives if the disposal of such soil is necessary as a result of site construction activities. Also allows the site owner to be reimbursed from the LUST Fund for costs associated with the disposal of

contaminated water encountered in an excavation at the site that is located within the measured or modeled extent of groundwater contamination. Both of these provisions would be limited to those situations where the soil or water was contaminated as a result of an eligible release; and

• requires the Illinois EPA to propose amendments to the EPAct if a change in law requires additional remedial action in response to a release.

Mercury & Other Chemical Reduction Legislation

P.A. 96-1281/HB 6201. *Signed into law on July 26, 2010; effective July 26, 2010*. Amends the Illinois Mercury Switch Removal Act. Extends by 6 years the repeal date of the Act (from January 1, 2011 to January 1, 2017).

P.A. 96-1295/SB 3346. Signed into law on July 26, 2010; effective July 26, 2010. Creates the Mercury Thermostat Collection Act. Requires thermostat manufacturers to establish and maintain a program for the collection and recycling of mercury thermostats taken out of service ("out-of-service mercury thermostats"). Sets forth requirements for outreach and education. Prohibits heating/cooling wholesalers and contractors from removing and selling thermostats, unless they are participating in a mercury thermostat collection program and sets forth penalties for violations of the Act. P.A. 96-1296/SB 3347. Signed into law on July 26, 2010; effective July 26, 2010. Creates the Lead and Mercury Wheel Weight Prohibition Act. When replacing or balancing a tire on a motor vehicle, prohibits, beginning January 1, 2012, the use of a wheel weight or other product for balancing motor vehicle wheels if the weight or other balancing product contains lead or mercury that was intentionally added during the manufacture of the product. Applies to all motor vehicles required to be registered with the Office of the Secretary of State. Also beginning January 1, 2012, prohibits the sale or distribution of weights or other products for balancing motor vehicle wheels if the weight or other balancing product contains lead or mercury that was intentionally added during the manufacture of the product. For purposes of this proposal, a "new motor vehicle" means a motor vehicle that is required to be registered under Title 29-A, Chapter 5, that has not been previously sold to any person other than a distributor, wholesaler, or motor vehicle dealer for resale.

P.A. 96-1379/HB 5040. *Signed into law on July 29, 2010; effective July 29, 2010*. Creates the Cadmium-Free Kids Act. Prohibits any person from manufacturing, knowingly selling or offering to sell, distributing or offering to distribute any children's jewelry manufactured after July 1, 2011 that contains cadmium in any paint or surface coating or accessible substrate that exceeds 75 parts per million (ppm), as determined through solubility testing for heavy metals defined in the ASTM (American Society for Testing of Materials) standards unless superseded by federal law. Defines a manufacturer as only the person who manufactured the final product, thereby excluding a person who simply assembled the product or whose name was otherwise affixed to the final product. Authorizes the Attorney General's Office to administer and ensure compliance with this Act, including imposing civil penalties. Authorizes the Illinois EPA to participate in an interstate information clearinghouse to promote safer consumer products.

P.A. 96-393/HB 2429. Signed into law on August 13, 2009; effective August 13, 2009. Amends the Mercury-added Product Prohibition Act. Requires the Illinois EPA to create an Internet web site containing certain information about compact fluorescent lighting by October 1, 2009. Further requires the Agency to collaborate with certain entities to inform consumers about the proper disposal of compact fluorescent lighting. Requires the Department of Central Management Services (CMS), in collaboration with the Department of Commerce and Economic Opportunity (DECO) and the Illinois EPA, to review and revise procurement specifications for lamps and ballasts purchased by the State.

Air Quality Legislation

P.A. 96-576/HB 2664. *Signed into law on August 18, 2009; effective August 18, 2009*. Amends the Excessive Idling Law within the

Illinois Vehicle Code. Increases from \$50 to \$90 the fine for a first conviction for a violation of excessive idling, and from \$150 to \$500 for a second or subsequent conviction within a 12 month period. Amends the Clerks of Courts Act. Specifies how the fines collected shall be distributed and provides alternate distribution procedures for circuit clerks for excess idling violations. Also amends the State Finance Act. Creates the Trucking Environmental and Education Fund as a special fund in the State Treasury. Provides that all money deposited into this new fund shall be paid, subject to appropriation by the General Assembly, to the Illinois EPA for the purpose of educating the trucking industry on air pollution and preventative measures specifically related to idling. Prohibits any administrative charges or chargebacks from the new Fund

P.A. 96-1278/HB 6047. *Signed into law on July 26, 2010; effective July 26, 2010*. Amends the Alternate Fuels Act. Makes hybrid vehicles that are converted to an alternate fuel eligible for a conversion rebate under the Illinois EPA's Alternate Fuels Rebate Program.

P.A. 96-887/HB 2688. *Signed into law April 9, 2010; effective April 9, 2010*. Amends the Environmental Protection Act. Authorizes the Illinois EPA to issue gasification conversion technology demonstration permits. Defines "gasification conversion technology" (GCT) as the process of applying heat to municipal waste, chicken litter, distillers grain, or switchgrass in order to convert these materials into a synthetic gas (syngas) meeting specifications for use as fuel for generation of electricity that: 1) does not continuously operate at temperatures exceeding an hourly average of 1,400 degrees Fahrenheit in the gasifier unit; 2) does not use fossil fuels in the process; and 3) is designed to produce more energy than it consumes.

Exempts such facilities from local siting provided that the applicant submits a complete permit application to the Agency prior to one year after the effective date.

Allows the Agency to issue such gasification conversion technology demonstration permits (GCTDPs) for limited field testing in order to demonstrate that the GCT can reliably produce syngas meeting specifications for use as fuel for generation of electricity. Such demonstration permits would be subject to the following conditions:

- 1. The permit would be for a period not to exceed 180 days from the date of issuance of the permit.
- 2. The applicant for the permit would be required to demonstrate that, during the permit period, the gasification conversion technology will not emit more than 500 pounds in the aggregate of particulate matter (PM), sulfur dioxide (SO2), organic materials, hydrogen chloride (HCl), and heavy metals.
- 3. The applicant for the permit would be required to perform emissions testing during

the permit period, as required by the Illinois EPA, and submit the results of that testing to the Agency as specified in the permit within 60 days after completion of testing.

- During the permit period the applicant could not process more than 10 tons per day of materials in the gasification process. Additionally, the applicant could not store more than 10 tons of waste and other materials on site.
- 5. In addition to the permit, the applicant would be required to obtain any other applicable Illinois EPA waste management permits before receiving waste at the facility. Additionally, waste received at the facility would be required to be managed in accordance with the Act, the waste management permits, and applicable regulations adopted under the Act.
- 6. The applicant would be required to demonstrate that the proposed project meets the definition of a gasification conversion technology as defined in the bill.
- 7. The applicant for the permit would be required to submit application fees in accordance with the Act.
- 8. The applicant would have to submit a complete permit application to the Agency prior to April 9, 2011.

Finally, prohibits any gasification conversion technology demonstration permits from being granted for use in any nonattainment areas of the State (the Chicago metropolitan and Bi-State Metro East areas of the State). P.A. 96-1314/HB 5147. Signed into law on July 27, 2010; effective July 27, 2010. Amends the Environmental Protection Act. Authorizes the Illinois EPA to issue demonstration permits for the testing of thermochemical conversion technology on a pilot scale basis. Defines "thermochemical conversion technology" (TCT) as the process of heating the "woody biomass" fraction of landscape waste to convert the woody biomass into synthetic gas (syngas) that can be processed for use as fuel for the production of heat and electricity, and eventually for the production of ethanol or hydrogen for transportation fuel, or both. To qualify as thermochemical conversion, the TCT: 1) must not continuously operate at temperatures exceeding an hourly average of 2,000 degrees Fahrenheit in the TCT unit; 2) must operate at or near atmospheric pressure with no intentional or forced addition of air or oxygen; 3) must use electricity as the source of heat; and 4) must be designed to produce more energy that it consumes.

Exempts such facilities from local siting provided: 1) the facility is located only in Naperville; 2) the facility is used exclusively to perform TCT with woody biomass as the hydrocarbon feedstock as set forth in the bill; 3) the facility complies with all local zoning requirements; and 4) the applicant submits a complete application for the demonstration permit to the Agency by July 27, 2011.

Allows the Agency to issue TCT demonstration permits for field testing to demonstrate that the TCT can reliably produce syngas that can be processed for use as fuel for the production of heat and electricity, for the production of ethanol or hydrogen for transportation fuel, or both. Such demonstration permits would be subject to the following conditions:

- 1. The applicant for the permit would be required to demonstrate that the TCT facility is a true minor source of air pollution and eligible for the Illinois EPA's Bureau of Air permits issued to such sources.
- 2. The applicant would be required to demonstrate that: 1) the TCT facility's potential to emit carbon monoxide (CO), sulfur dioxide (SO2), nitrogen oxides (NOx), and particulate matter (PM) individually will not exceed 79.9 tons/per year; 2) the TCT facility's potential to emit volatile organic materials (VOMs) will not exceed 24.9 tons a year; and 3) the TCT facility's potential to emit individual hazardous air pollutants (HAPs) will not exceed 7.9 tons a year, and that the combined total of HAPS will not exceed 19.9 tons a year.
- 3. The applicant would be required to perform emissions testing during the permit period, as required by the Illinois EPA, and submit the results of that testing to the Agency as specified in the permit within 60 days after completion of testing.
- 4. The applicant would be limited to processing no more than four tons per day of woody biomass.
- 5. The applicant would be required to demonstrate that the proposed project meets the

definition of a thermochemical conversion technology as defined in the bill.

- 6. The applicant would be required to submit application fees in accordance with the EPAct.
- 7. In addition to the TCTDP permit, the applicant would be required to obtain any other applicable Illinois EPA water pollution control permits before constructing the TCT facility, as well as obtaining any other applicable waste management permits from the Agency prior to receiving any woody biomass collected as landscape waste. Additionally, waste received at the facility or generated by the facility would be required to be managed in accordance with the TCTDP permit, the waste management permits, and applicable regulations adopted under the EPAct. Finally, the TCT facility would be required to be closed in accordance with the applicable permit conditions.
- 8. The applicant would have to submit a complete permit application to the Agency by July 27, 2011.

P.A. 96-784/SB 658. *Signed into law August* 28, 2009; *effective August 28, 2009*. Amends the Illinois Power Agency Act. Requires the Illinois Power Agency to conduct a cost study for a coal gasification and carbon sequestration facility on the south side of the City of Chicago. Specifically, the bill states that it is the intent of the General Assembly to promote the development of a clean coal synthetic natural gas (SNG or "syngas") facility on a brown-fields site in a municipality with a population

of one million or more (Chicago only) with the ability to produce a minimum annual output of 30 British cubic feet (Bcf) of syngas, and commence construction on the facility no later than June 1, 2013. Requires the owners of the proposed facility to pay for the cost study, but allows the owners to be reimbursed by the Illinois Power Agency for up to \$10 million of the cost of conducting the study. Specifies the contents of the cost study. Requires the Illinois Power Agency to review the cost study with the assistance of a hired consultant and, based upon the report, to consider whether or not to enter into long-term contracts to purchase the power generated by the facility.

P.A. 96-781/SB 52. *Signed into law August 28, 2009; effective August 28, 2009.* Clarifies that the owners of the coal gasification and carbon sequestration facility to be reimbursed by the Illinois Power Agency for the cost of conducting the study would be reimbursed from the Coal Development bond Funds, and up to \$6 million under the Energy Conservation and Coal Development Act.

Business-Friendly/Administrative Efficiency Legislation

P.A. 96-245/HB 629. *Signed into law on August 11, 2009; effective August 11, 2009*. Amends the Environmental Protection Act. Changes the annual \$500 NPDES permit fee for construction site stormwater discharges to a one-time application fee of \$750 for construction projects of 5 or more acres, and to a one-time application fee of \$250 for construction projects of under 5 acres.

P.A. 96-308/HB 3859. *Signed into law on August 11, 2009; effective August 11, 2009*. Amends the Environmental Protection Act. Reinstitutes for 5 years (until December 31, 2014) the Illinois EPA's authority to propose "fast-track" rulemakings to the Pollution Control Board specifically for rules adopted pursuant to the federal Clean Air Act.

P.A. 96-934/SB 2812. Signed into law on June 21, 2010; effective June 21, 2010. Amends the Environmental Protection Act. Clarifies the authority of the Pollution Control Board to stay some or all of uncontested conditions in a Clean Air Act Permit Program (CAAPP) permit that is appealed if the Board determines that the uncontested conditions would be affected by its review of the contested conditions. Authorizes the Board to stay the entire permit upon a demonstration that the issues raised on appeal can be reasonably expected to affect the entire CAAPP permit, in which case the provisions of any prior existing permit continue in full force and effect until the final Board decision on the appeal of the CAAPP permit has been made, but if only certain conditions of the new CAAPP permit are being appealed, then only those conditions being appealed would be stayed while the rest of the conditions of the new CAAPP permit would remain in force

P.A. 96-520/HB 3636. *Signed into law on August 14, 2009; effective August 14, 2009*. Amends the Environmental Protection Act. Beginning on January 31, 2010, provides that quarterly tax returns submitted by tire retailers are due by April 20, July 20, October 20, and January 20 of each year (now, returns are due by April 30, July 31, October 31, and January 31).

P.A. 96-537/SB 2145. *Signed into law on August 14, 2009; effective August 14, 2009*. Amends the Response Action Contractor Indemnification Act. Transfers the balance in the Response Action Contractor Indemnification Fund's (RACIFund) to the Brownfields Redevelopment Fund (BRF), and eliminates the RACIFund altogether. Also amends the Asbestos Abatement Act to delete an obsolete reference to the RACIFund.

Also repeals the Hazardous Waste Crane and Hoisting Equipment Operators Licensing Act, as well as the Hazardous Waste Laborers Licensing Act, both of which were struck down as unconstitutional in 1992.

Amends the Alternate Fuels Act. Changes the time period during which a person can apply for an alternate fuels rebate for a vehicle conversion or new alternate vehicle purchase. Specifically, changes the deadline from the end of the calendar year of the purchase or conversion, to within 12 months of the time of the conversion or purchase.

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Notice of Nondiscrimination

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Responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination requirements implemented by 40 C.F.R.Part 7 (Nondiscrimination in Programs or Activities Receiving Federal Assistance from the Environmental Protection Agency), including Title VI of the Civil Rights Act of 1964, has been designated to:

Ken Page

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Illinois Environmental Protection Agency

BOX 19276 SPRINGFIELD, ILL. 62794-9276 September 2011

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