

State of Illinois
Rod R. Blagojevich, Governor

Illinois Environmental Protection Agency
Douglas P. Scott, Director



To Provide and Maintain a Healthful Environment



Illinois Environmental
Protection Agency

BIENNIAL REPORT 2005-2006

OCTOBER 2007



Illinois
Environmental
Protection Agency

www.epa.state.il.us



“There is no real economic security, opportunity or quality of life for our citizens if we do not place a high priority on protecting the environment.”

ROD R. BLAGOJEVICH
Governor of Illinois

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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*

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Environmental Protection Agency
Office of the Director
Springfield, Illinois



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MESSAGE FROM THE DIRECTOR

This is the second Biennial Report from Illinois EPA, providing an overview of the Agency's work during 2005 and 2006. As with our first report for 2003-2004, it replaces more technical previous reports and reflects Governor Rod Blagojevich's goal to make state government more accessible and responsive. It highlights the ongoing progress being made in our state to protect our air, land and water resources, as well as continuing efforts to involve communities and engage our citizens in taking responsibility for good environmental practices. While I have been privileged to be Director of the Illinois EPA since July 2005, and appreciate the work of the dedicated professionals at the Agency, I strongly believe that, in the spirit of the first Earth Day in 1970, "environmental protection" is not just the responsibility of government regulatory agencies, but all of us.

One of the pleasures of my job has been to meet with and sometimes provide recognition to organizations, local governments, businesses, and individual citizens who have demonstrated their environmental stewardship. You can read about some of them in this report.

As you will see in this document, the past few years have brought us some exciting new tools

and landmark achievements, through new legislation, new regulations, and new initiatives.

For example, while overall outdoor air quality in Illinois has steadily improved in the past three decades, Illinois has taken some additional major steps forward in the past few years, showing regional and national leadership in addressing mercury and other pollutants from coal-fired power plants and reducing greenhouse gases that contribute to global warming.

Governor Blagojevich kicked off a series of important clean air initiatives in January 2006 with his plan to reduce mercury emissions from the state's 21 coal-fired power plants by 90 percent by June 2009. The Governor and Illinois EPA felt strongly that a federal mercury reduction plan finalized by U.S. EPA in May 2005 did not go far enough in addressing mercury emissions into the air that accumulate in fish and can cause health hazards for unborn children, infants and young children. We were also concerned that Illinois' oldest plants in greatest need of controls would be able to buy emission credits in other states and not have to make any real reductions on their own. Our state regulations, given final approval in November 2006, specifically do not allow for the trading, purchasing or the banking of allowances, ensuring that reductions occur both statewide in Illinois and at every power plant in order to address local impacts and reduce "hot spots."

The Governor's plan was strongly backed by a variety of major health and environmental advocacy organizations across the state and thousands of individual citizens wrote the Illinois Pollution Control Board in support of it. During the course of several hearings before the Illinois Pollution Control Board, and review by the legislative Joint Committee on Administrative Rules, on behalf of Governor Blagojevich, Illinois EPA also reached some landmark agreements with the state's three largest coal-fired power plant operators. The agreements with Ameren, Dynegy and Midwest Generation will not only achieve mercury reductions but also significantly reduce nitrogen oxides and sulfur dioxide emissions that contribute to smog and soot and can aggravate heart and lung diseases. These bonus reductions under a voluntary "multi-pollutant strategy" the companies agreed to support will also be substantially higher than federal regulations would have required. At the same time it will give the operators the flexibility to use control technologies that reduce several pollutants.

Meanwhile, Governor Blagojevich in 2006 also announced a series of major initiatives to make Illinois a leader among the states in the critical fight against global warming, certainly one of the great environmental challenges facing all of us. We share the concerns of scientists that unabated global warming could have serious consequences in Illinois and across the

Midwest, including decreased agricultural production, more frequent flooding and disruption of sewage infrastructure and introduction of invasive species that could disrupt natural ecosystems. In October 2006, Governor Blagojevich announced his Global Warming Initiative, including issuing an Executive Order creating an Illinois Climate Change Advisory Group the Governor asked me to chair, that has been taking an in-depth look at what policies and strategies Illinois can adopt to reduce greenhouse gas emissions in both the public and private sectors. The Advisory Group has broad spectrum representation, including business, labor, energy and agriculture sector representatives, scientists, economists and environmental advocates and is currently working with a leading environmental think tank, World Resources Institute, in evaluating potential options for Illinois to reduce greenhouse gas emissions, with a report and policy recommendations to the Governor anticipated by the end of 2007.

As part of the initiative, Illinois becomes only the second state (after New Mexico) to join the Chicago Climate Exchange (CCX) and will make a voluntary, but legally binding, commitment to reduce greenhouse gas emissions from the electricity and fuel needed to operate state facilities and motor vehicles. The Executive Order builds on previous initiatives by Governor Blagojevich and Illinois EPA to address global climate change that include a strong component of market-based trading sys-

tems. Illinois became the first state government in the nation to offer farmers and other landowners the opportunity to earn and sell greenhouse gas emissions credits by adopting various conservation practices to limit airborne levels of carbon dioxide and methane through the Conservation and Climate Initiative announced in January 2006. It has garnered strong support among farmers and other landowners through such practices as utilizing methane manure digesters, conservation tillage and growing trees and grasses. Working with the Association of Soil and Water Conservation Districts, Illinois EPA signed up 123 landowners and more than 46,000 acres in the first pool closing in October 2006, with payments to participants of nearly \$120,000.

In August 2006, Governor Blagojevich unveiled an ambitious energy independence plan that includes several elements that will reduce greenhouse gas emissions, including the investment of \$775 million to help build ten new coal gasification plants and construction of a pipeline to move carbon dioxide captured from coal gasification plants to oilfields in Southeastern Illinois. This innovative plan combines a reduction of greenhouse gas emissions while allowing Illinois to use its own resources, such as our abundant supplies of coal, to meet more of our energy needs.

Besides a goal of making E-85 (ethanol) fuel available throughout the state as well as increased biodiesel and ethanol production and



“Each of us has the responsibility to protect the environment – not just for our quality of life today, but for the generations to come.”

Douglas P. Scott,
Director, IEPA

availability, the Governor's energy plan includes financial and technical incentives to make Illinois a national leader in wind power, and state government in 2006 committed to one of the largest wind power purchases to provide energy for 141 state facilities through an agreement with City, Water, Light and Power in Springfield.

Our agency air permit staff has also been particularly busy the past few years making sure that several proposed new ethanol production facilities in Illinois are properly built, an effort supplemented by a series of workshops and a manual for potential ethanol plant developers. In addition, air permit staff has crafted technically-challenging permits for new clean coal energy facilities.

As you will see in the report, we continue to enlist individual citizens and organizations to help clean our air, such as through our nationally-renowned Partners for Clean Air and Green Pays on Green Days programs in the Chicago metro area, with record levels of participation by citizens in 2006 pledging to take "clean air" actions. The Clean School Bus Program also continued to be effective in 2005-2006 in reducing harmful diesel emissions from thousands of school buses throughout the state, while our alternate fuel rebates and workshops have expanded the use of renewable fuels.

We also continue to move forward in cleaning up contaminated sites and addressing open dumping throughout our state. In 2006, the Legislature and Governor Blagojevich approved the first significant funding in the Agency's history to address festering open dump sites. Through the IRID (Illinois Removes Illegal Dumps) Program, we are now able to hire contractors to clean up and properly dispose or recycle these sites across the state, as well as preventive steps to prevent renewed dumping, and many citizens and community leaders have been strong boosters of the program.

IRID is just the latest tool we have to clean up contaminated sites, joining the suite of remediation programs that continues to address health and safety hazards at hundreds of locations each year, clearing the way for redevelopment for economic benefit or recreational or natural area use. In addition to continuing brownfields assistance grant programs, a new initiative for older river communities, called River's Edge, was launched in 2006, with Aurora, East St. Louis and Rockford designated as initial pilot communities. IEPA permitting, inspection and enforcement staff also continue to make sure that hazardous waste materials are properly handled, stored and disposed of and do not pose a hazard to health or the environment.

Through legislation and regulations adopted by the Pollution Control Board in 2006, Illinois EPA has also expanded its oversight of the disposal of clean construction and demolition debris.

Citizens were also enlisted to help in the effort to ensure waste materials do not become an environmental or health hazard through their participation in a record number of household hazardous waste collection events held in 2005 and 2006, co-sponsored by IEPA and local governments or organizations. The Agency also continued the largest waste tire recovery program in the nation. IEPA also worked with many school districts around the state to collect hazardous lab chemicals and mercury for proper disposal.

We also continued to make great strides in Illinois during the past two years in protecting our lakes, rivers and streams and safeguarding our public water supplies.

Watershed-based planning efforts expanded along with detailed analysis of rivers and stream segments to determine the most effective approaches to preventing "nonpoint source" pollution that does not come from the end of a pipe. Through the federal Clean Water Act Section 319 grant program, Illinois EPA worked with local government agencies and

watershed protection groups on erosion control, streambank stabilization, and education to reduce runoff from parking lots and farm fields that are now the major cause of pollution to our lakes and streams. The expanded stormwater permit program is also significantly reducing nonpoint source pollution and erosion at new construction developments. The Governor's Mississippi River Source Water Protection Initiative workshops focusing on reducing pollution and addressing security issues for a dozen communities that rely on the Mississippi River for their drinking water source was highly successful during 2005 and 2006.

In addition, IEPA's low-interest revolving loan infrastructure program continued to be a key component for communities across the state being able to move forward on upgrading or expanding wastewater and drinking water treatment plants and collection and distribution facilities, including those public water supplies needing to provide additional or alternative treatment to meet more restrictive limits on naturally-occurring radium and arsenic in groundwater supplies.

On the regulatory front, a new and more restrictive interim standard proposed by IEPA for phosphorus discharges that potentially can cause algae, was adopted in 2006 for larger wastewater treatment plants.

Essential to the success of these air, land and water programs is a strong community relations, public outreach and education effort.

In 2005, landmark "right to know" legislation was enacted that requires those responsible for off-site pollution to provide additional notification and community relations plans for those impacted by contamination, particularly wells using groundwater. Backed up by formal regulations, IEPA implemented the law in 2006 and integrated it into our daily operations, supplementing the hearings, public meetings and one-on-one contacts the Agency has emphasized for many years. A Contaminant Evaluation Group, which includes representatives from air, water and land staff, toxicologists, community relations coordinators, emergency responders and legal staff, plays a key role in determining potential impacts.

More information on permits, cleanup sites, drinking water quality reports, and other data has been made available online through our web site, along with expanded electronic reporting by regulated facilities and online submission of Freedom of Information Act requests.

Illinois EPA's many education programs continued to encourage new generations of environmental stewards in 2005 and 2006, including

the Pollution Prevention and Governor's Environmental Corps summer internships for college students, the "Environmental Pathways" lesson packets for 5th and 6th grade students and the accompanying annual Poster, Poetry and Prose Contest, and state Science Fair and Green Youth recognitions, and the Lake Education Assistance Programs. You can read more about all of these programs in the Biennial Report.

Finally, the Agency's lawyers and other enforcement staff continued to step in when necessary to ensure that the playing field was fair for industry and business and that environmental scofflaws did not get an unfair advantage at the expense of our environment and public health. They also worked with communities and organizations to identify potential Supplemental Environmental Projects as part of enforcement settlement cases.

In conclusion, I hope you will find this report of interest and if you have any suggestions or ideas on how we can make our programs better, please contact us. When it comes to protecting the environment, we all have a role to play.

PUBLIC OUTREACH AND CITIZEN INVOLVEMENT

IEPA expands interaction with
citizens and diverse communities.

Right-to-Know Legislation Better Informs Illinois Citizens

In September 2006 the Illinois Pollution Control Board gave final approval to regulations proposed by Illinois EPA to implement the landmark “Right to Know” (RTK) legislation signed into law in July 2005. IEPA worked with citizen groups, environmental organizations and business and industry groups to fashion specific regulations to implement the law so it would meet the goal of providing increased information to citizens potentially impacted by off-site land and groundwater contamination and encourage more rapid cleanup responses, while not imposing an impossible burden on either IEPA or responsible parties.

Public Act 94-314 was signed into law in July 2005. This act amends the Environmental Protection Act to mandate that the Illinois EPA give timely notification to Illinois citizens about contamination in soil or groundwater that may threaten public health from permitted facilities or other sites where Illinois EPA gains credible scientific data on contamination that is meas-

ured or modeled to pose an off-site threat of exposure to the public. In certain circumstances, responsible parties or remedial applicants may be allowed to issue the notice as part of Agency-approved community relations activities. The Act also requires mandatory notification for sites deemed emergencies through certain Illinois EPA and U.S. EPA actions. Illinois EPA assisted in drafting the new law with chief sponsors State Sen. John Cullerton and State Rep. Thomas Holbrook.

In recent years, the Illinois Environmental Protection Agency (Illinois EPA) has become aware of contamination in certain areas of the state that threatens the safety of drinking water supplies that use groundwater sources. Experience from working on multiple sites, where commonly used commercial and industrial solvents migrated into the groundwater from soil contamination, highlighted the need for early notification to private well owners in the areas of contamination so that individuals can test their water and make important decisions that may impact their families’ health. An estimated 400,000 private wells exist in Illinois, many close to larger cities that are encroaching into traditionally rural areas as they expand.

An investigation by IEPA, along with the Illinois Department of Public Health and the DuPage County Health Department, in 2002-2004, of contamination linked to a factory and an industrial park that impacted more than a thousand private wells, particularly helped spur passage of the new law.

The new regulations include requirements for identifying drinking water wells in an area of concern and for performing community relations activities to notify and establish communication with the public who may be affected by contamination. Those rules went through two hearings with the Board in the spring of 2006 before final approval in September after the Legislature’s Joint Committee on Administrative Rules (JCAR) had no objections.

Right-to-Know Notifications

Meanwhile, notifications to owners of properties that may be affected by contamination from a given site or facility was required as of January 1, 2006 whenever the Illinois EPA determines that soil contamination beyond the boundary of the site where the release occurred poses a threat of exposure to the public above specified cleanup objectives, or groundwater contamination poses a threat of exposure to the public above the Class 1 groundwater quality standards. Illinois EPA will offer the responsible party or those performing the cleanup an opportunity to make the notification, when appropriate. The Illinois EPA will review and approve the outreach plan and method of notification as well as the notice itself. If the responsible party declines to make the notification, the Agency will do so and can seek to recover the costs of providing that notice if it chooses. Right-to-Know Notice Cost rules were developed on a parallel track with the implementing regulations by the Agency during 2006 and

received final approval through the JCAR process in October of that year.

Screening Process for Sites that may require Notification

In the fall of 2005, Illinois EPA established a Contaminant Evaluation Group (CEG) to systematically review site/facility situations with actual or potential off-site contamination threats that are first identified at the bureau or office level. The CEG is comprised of representatives from: the Bureaus of Air, Land, and Water; Division of Legal Counsel; Office of Community Relations; and the Office of Emergency Response.

Each Agency program is responsible for screening new and existing sites/facilities under their jurisdiction, comparing known environmental data from a site with established screening criteria for off-site soil and/or groundwater threats. Sites that are “flagged” are vetted through a bureau process and passed on to the RTK coordinator in the Office of Community Relations for distribution to the CEG. RTK notification referrals are sent to CEG members for review via e-mail communications, usually the same business day they are received. Questions and responses are handled through e-mail exchanges; once consensus is reached the RTK coordinator will assign the site to a community relations coordinator to proceed with notifications activities, if that is the group’s recommendation. The CEG holds monthly meetings to discuss outstanding site issues, RTK process and

procedural matters and training/outreach activities. Although the primary focus of the CEG is on notification decisions, recommendations may be forwarded to the appropriate program or other decision-making group about follow-up site investigations or enforcement actions.

Environmental Education Programs Foster Eco-Appreciation

The Illinois EPA sponsored a number of programs that helped our youth gain a deeper appreciation of the environment:

The Agency’s environmental education packet, *Environmental Pathways – Youth Investigating Pollution Issues in Illinois*, was used by more than 34,000 Illinois 5th and 6th grade students in 2005 and 2006. After the curricula are incorporating into the classrooms, students are encouraged to express and share what they have learned through the creation of posters and writ-



One of the winning entries from 5th and 6th graders in the 2006 poster, Poetry and Prose contest.

ten works via the Poster, Poetry and Prose Contest that takes place annually in the spring. The theme for 2005 was “The Air We Breathe.” In April 2006, Illinois EPA Director Doug Scott honored 60 fifth and sixth-grade winners in the Agency’s 19th annual art, prose and poetry contest that was held at the Abraham Lincoln Presidential Library and Museum. Twelve winners received top recognition, along with inclusion in the Agency’s first Poster, Poetry and Prose Calendar. The theme was “Water: Conserve it, We Deserve it!” Each finalist received a certificate and ribbon. The top twelve winners received a \$50 U.S. Savings Bond, a rosette, certificate and an environmental reference book for their school library. The awards ceremony also included an additional award to twelve students; an Honorable Mention medal in recognition of creativity, time and effort, and artistic skills.

The Illinois State Fairgrounds in Springfield was the site of the 14th annual Earth Stewardship Day that took place on May 4, 2005. Approximately 1,000 Sangamon County fourth graders registered for this event to learn about the importance of protecting, restoring, recycling and reusing natural resources. A total of 35 interactive presentations and special attractions were scattered throughout the fairgrounds representing a wide range of agencies and organizations, six of which were staffed by the Illinois EPA.

The 15th annual Earth Stewardship Day was on May 2, 2006. The event attracted more than

1,000 4th grade students representing 16 Sangamon County schools. A total of 35 presenter stations were available, with four of those being sponsored by Illinois EPA. The Illinois Environmental Protection Agency, the Illinois Departments of Agriculture, Commerce and Economic Opportunity, and Natural Resources, as well as the Association of Illinois Soil and Water Conservation Districts and the City of Springfield jointly sponsored this event. The Agency takes the lead in organizing this event.

Governor Blagojevich and the Illinois EPA awarded Environmental Excellence Awards to eight students at the state Science Fair in both 2005 and 2006, hosted by the Illinois Junior Academy of Science in Champaign in May. The Agency serves as a Special Awards Sponsor to students whose projects encompassed an environmental awareness. The awards given were broken into two categories consisting of a junior (7th and 8th grade) and a senior (9th – 12th grade) division. Winners were chosen from each category to receive an Outstanding Achievement Award, 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.

The Agency is actively involved with the Environmental Education Association of Illinois (EEAI). EEA is a statewide organization that works to create and maintain a vital network that supports and advances quality

environmental education throughout the state. The Agency participates in presenting and sharing information at the annual conference where approximately 100 formal and non-formal environmental educators from around the state attend.

The annual Illinois Make a Splash event was held in September 2006 at the Rock Springs Nature Center in Decatur. Six of the presentations were given by Agency staff. Make a Splash is a day of water education for students and is celebrated across the United States with interactive water quality. Over 600 Piatt and Macon county 4th grade students were able to explore a diversity of water related topics including watersheds, geology and water quality. This event is sponsored nationally by The Watercourse/Project WET (water education for teachers) and funded by Nestle Waters North America, Inc. The first 34 states that apply for the grant receive \$3,000 to help support their events. IEPA and Macon County Conservation District cosponsored this event.

The Illinois EPA has sponsored and presented at several Living Lands & Waters (LL&W) workshops. One particular workshop that the Agency was involved with in 2006 was “Rediscover the River: A 4-Day Mississippi River Expedition,” which was LL&W’s first four-day workshop held on the barge. The floating classroom and garbage barge departed from St. Louis and ended in Hannibal, Missouri. Approximately 25 fourth through 12th grade science and social science educators from the

Midwest learned about water quality; the history, bottomlands and wildlife of the river; tree identification; river stewardship and much more that can be incorporated into the classroom. The participants on the floating classroom also got to experience a unique opportunity of locking through the Melvin Price Locks and Dam. In addition, these educators were able to participate in the 2006 Great North American Secchi Dip-In as Dr. Bob Carlson from Kent State University in Ohio, founder and Director of the Dip-In, explained the history of water transparency and why it is important.

The Agency also sponsored and created two DVDs for LL&W: “The Katrina Project” and “Big River Educational Workshops.”

Living Lands & Waters has become a nationally known leader in Community Cleanups, Riverbottom Forest Restoration activities, and Educational Workshops that started out as one person wanting to make a difference, “one river at a time...one piece of garbage at a time.”

Agency staff presented a “water quality” station at the annual Conservation Fair at the DuQuoin State Fairgrounds, which ran from October 3 through October 5, 2006. This event introduced more than 3,000 kindergarten through sixth grade students from all over southern Illinois to the importance of conservation practices and to the protection of Illinois’ natural resources. The water quality presentation included a brief summary of why the water quality is important and ways that it can be assessed and protected. A

demonstration of the secchi disk followed and students were able to compare it to the color chart. After discussing what causes the green or brown color of the lake, students were able to take turns filtering a sample using a vacuum pump. This event was hosted by the Soil and Water Conservation Districts of Randolph, Perry, Jackson, Williamson, Franklin and Washington counties.

Several requests are made throughout the year for various environmental educational materials and resources that are available from the Agency. These requests originate from teachers, non-formal educators, parents, non-profit organizations and other agencies, and include the following: coloring books, pencils, crayons, bookmarks, Lake Notes, teacher's manuals, activities, posters, etc.

Governor's Environmental Corps Summer Internship Program Celebrates 15th Anniversary in 2006

The Governor's Environmental Corps, which pairs college students with Illinois EPA staff mentors for a unique on-the-job summer internship, celebrated its 15th anniversary in 2006, with 572 total alumni.

In 2006, 34 interns from 21 different college campuses worked with 39 Agency staff mentors at Illinois EPA offices in Springfield, Des Plaines, Rockford, Peoria, Collinsville, Champaign and Marion for nine weeks, performing a variety of work assignments from



Hui Xi, a 2005 IEPA Pollution Prevention intern assesses potential air leaks on the assembly line at International Truck and Engine in Melrose Park.

helping to do field inspections and gathering samples for lab analysis, to helping review permit applications and doing research for agency attorneys.

Some of the interns each summer also participate in the Junior Environmental Corps, in which they provide fun environmental education programs for children at camps in central Illinois.

The interns also participate in field trips, such as visits to wastewater treatment plants and landfills that are regulated by Illinois EPA.

The salaries of the interns are paid for through donations from Illinois companies, with 13 corporate sponsors in 2006.

In 2005, there were 38 participants from 20 different college campuses.

Pollution Prevention Interns

During 2005-2006, Illinois EPA recruited and placed 40 college interns in the field to work on pollution prevention projects at businesses, institutions and local governments across the state. The interns are trained to help facilities carry out waste reduction, water conservation and energy efficiency projects that can save money and improve efficiency. One of the interns who worked for the City of Du Quoin recommended that the city convert to more efficient LED traffic signals and purchase a hybrid electric car for its vehicle fleet. These two projects could help the city save over \$6,000 a year. Another intern, who worked at Caterpillar's Mapleton Foundry, recommended that the company replace existing metal halide lamps with high efficiency sodium lamps; implement a program to detect and reduce air leaks in air compressors; turn off lights in unoccupied areas and install occupancy sensors; and replace worn out motors with high efficiency units. Together, these projects have the potential to save the company almost \$400,000 a year.

"Citizens Information Center"

This on-line feature provides quick access to a variety of useful environmental information, services such as nearby recycling and safe disposal locations, practical "green tips" for daily living, a special section on "Green Schools" that includes Governor Blagojevich's Clean and Healthy Schools Initiative, and links to databases with information on environmental

conditions in your community. There are also links to special sections on our website for kids and teachers, and the many Agency publications.

On-line Environmental Complaints

In order to make it easier for the public to lodge a complaint for investigation by the Illinois EPA, an electronic complaint form was posted on the Agency's website during 2003 in both English and Spanish. Citizens can now submit their complaints with just a click of the mouse, and the Illinois EPA tracks the complaints to ensure they are addressed.

Toll-Free Environmental Helpline

For those who do not have ready access to the Internet, there is also a toll-free Illinois EPA "Environmental Helpline."

Every fall and spring, Earth 911 and the Agency's Calendar of Events web sites are updated to include the Household Hazardous Waste and Waste Tire Collection Events. The calendar is also updated throughout the year with upcoming meetings, hearings and other informational events.

The Citizens' Bulletin is emailed to registered subscribers and posted live on the Agency's web site quarterly. Regular featured articles include Green Tips, In The Community, FAQs and Events.

Several requests are made throughout the year for various environmental educational materials and resources that are available from the Agency. These requests originate from teachers, non-formal educators, parents, non-profit organizations and other agencies, and include the following: coloring books, pencils, crayons, bookmarks, Lake Notes, teacher's manuals, activities, posters, etc.

COMMUNITY RELATIONS:

A vital link to the public

The mission of the IEPA's Office of Community Relations (OCR) is to facilitate open communication and informed public participation in Agency decisions and activities.

The Illinois EPA recognizes that strong environmental decision-making must not only be based on sound technical information. Decisions must also consider the values, knowledge and perspectives of people who will be affected. The key is two-way communication between the public and the agency. The Office of Community Relations was formed to open this dialogue—not only giving the public information on the agency's programs and decisions but also soliciting public comments, questions and concerns.

The agency's programs can be extremely complex. Biologists, chemists, engineers, geologists, toxicologists and attorneys may all lend

their expertise to a specific decision. A basic responsibility of OCR is to make technical information available to the public in non-technical language — sometimes in the form of fact sheets; other times in face-to-face conversations or public meetings.

A second basic OCR responsibility is to make sure that the agency fulfills legal requirements for public participation. These requirements often apply to permit decisions and remedy selection at Superfund sites. Sometimes these requirements are simple. For example, OCR may be required to place a newspaper advertisement notifying the public of an upcoming agency decision and advising the public on how to submit written comments. For other decisions, OCR may be required to set up local repositories of information so the public can have easy access to documents that are the basis for agency decisions. In many cases, OCR is required to arrange public hearings so the public can give oral, as well as written, comments on a pending agency decision.

In many cases, however, the law does not require formal participation in agency activities. Where there is a significant environmental concern or public interest, but no legal requirement, OCR may still become involved.

OCR has found that the best way to open a dialogue with a community is usually to contact local officials and community leaders. Questions OCR may ask are: "Does the community receive information from television, the newspaper or other sources?"

“Are public meetings or face-to-face conversations the most efficient and effective way to interact with the community?”

Is there a need for an interpreter?”

With this and other information, OCR will develop and implement a community relations strategy for that specific community.

When OCR receives comments and questions from the public, the OCR coordinator’s role is to make sure these comments and questions are directed to the appropriate agency staff. Together with these staff, OCR identifies possible responses that will respond to the public’s concerns. For example, former employees of a facility may know the location of buried waste on a site, and the agency uses this information to help focus an environmental investigation. Often the public has significant health concerns. OCR, with the agency toxicologists and Illinois Department of Public Health staff, may engage in an ongoing conversation with the affected public – giving and receiving information about routes of exposure to contamination, health effects and other health-related issues.

Sometimes, because of legal or technical considerations, the agency cannot respond in the way the public requests. For example, a landfill permit cannot be denied because the applicant meets all technical and legal requirements. In these cases, it is important that OCR keep open the lines of communication between the public and the agency. The goal is that the public

knows that the agency has heard its concern and made modifications, where possible, and that the public understands why the permit must be issued.

The two case studies below give a flavor of community relations activities during three projects that occurred or were ongoing in 2005 and 2006.

Waukegan Harbor Area of Concern

Waukegan Harbor is Illinois’ only Great Lakes Area of Concern (AOC). The harbor is located approximately 40 miles north of Chicago on the west shore of Lake Michigan in Waukegan, Illinois. In 1975, polychlorinated biphenyls (PCBs) were discovered in Waukegan Harbor sediments. In 1981, the U.S. and Canadian governments identified Waukegan Harbor as one of 43 Areas of Concern under the Great Lakes Water Quality Agreement, or severely degraded geographic areas located within the Great Lakes Basin.

The site was added to the National Priorities List (NPL) in the early 1980s. Approximately 1 million pounds of contaminated sediments with PCB levels at or above 50 ppm was present. As a result, residual contamination has remained in the harbor.

The NPL dredging activities resulted in a significant decrease in the levels of PCBs found

Waukegan Harbor sportfish tissue. However, ongoing monitoring of PCBs in the tissues of Waukegan Harbor sportfish indicate that the residual PCBs in Waukegan Harbor are resulting in levels of PCBs higher than those in the open waters of Lake Michigan.

Contaminated sediments are a major impediment to delisting Waukegan Harbor as a Great Lakes AOC and may directly impact the following beneficial use impairments: restrictions on dredging, restrictions on fish and wildlife consumption, and degradation of benthos. However, there is an immediate opportunity for U.S. EPA, Illinois EPA, the U.S. Army Corps of Engineers, and local stakeholders to cooperate on a sediment remediation project in Waukegan Harbor. The Great Lakes Legacy Act and/or the Water Resources Development Act provide the potential opportunity to bring a significant amount of federal funds to assist in remediation of Waukegan Harbor. However, to make use of these funding sources in a timely manner (Great Lakes Legacy Act funding is authorized only through FY2008) will require tight coordination between the state, federal, and local agencies on technical, policy, permitting, and funding issues.

Illinois EPA continues work with U.S. EPA, the U.S. Army Corps of Engineers, and local leaders as part of a stakeholders group to determine appropriate remediation actions for the restoration of the beneficial uses of Waukegan Harbor. During 2005 and 2006, staff from the Illinois EPA’s Bureau of Water, Bureau of Land and

Office of Community Relations actively engaged in bi-weekly to weekly stakeholder calls to formulate project options, provide feedback on state regulatory requirements and develop a strategy to secure funding of the non-federal cost share.



A ship docks in Waukegan Harbor

During 2005 and 2006, critical steps were taken toward the submittal of a request for funding under the Great Lakes Legacy Act. Preliminary designs were developed, alternatives explored, risks evaluated, additional sampling conducted and cost savings alternatives investigated in an effort to bring the project closer to a final design. The documents were developed through stakeholder collaboration and assembled by a contractor for U.S. EPA with input from Illinois EPA technical staff and local stakeholders.

In March of 2006, staff from the Illinois EPA's Bureau of Water, Bureau of Land and Office of Community Relations represented the Illinois

EPA at the Waukegan Harbor Partnering Conference convened by the U.S. Army Corps of Engineers. During this conference the Illinois EPA partners signed a partnering agreement which demonstrated the Agency's willingness to work toward and achieve the common project goals.

Illinois EPA staff continues to provide project updates to the community at the monthly meetings of the Waukegan Harbor Citizens Advisory Group. In addition, community relations staff has prepared educational materials and packets to be used by the Citizens Advisory Group in raising awareness among local residents and officials of environmental remediation needs at Waukegan Harbor.

Braidwood Generating Station – Exelon Nuclear Braceville, Illinois

In late 2005, Exelon discovered that previous surface releases of tritiated water at the location of vacuum breakers in a conveyance line resulted in groundwater contamination between the generating facility and the Kankakee River, to the east.

Tritium water, mixed with plant cooling water, was routinely discharged to the river, per Nuclear Regulatory Commission requirements and Illinois EPA National Pollutant Elimination Discharge System (NPDES) permit conditions regarding the use of the pipe carrying the discharge.



Braidwood nuclear power plant

Illinois EPA pursued enforcement actions against Exelon regarding the groundwater contamination. Together with the Office of the Illinois Attorney General, Illinois EPA and the Will County States Attorney worked out an Interim Order to cause Exelon to fully define and begin cleaning up the main plume of tritiated water that was centered on the north side of the generating plant, moving slowly northward toward off-site private wells.

Additionally, pursuant to the order, Exelon is conducting community relations outreach activities, with Illinois EPA oversight, to keep the area residents informed of the status of the site work. Area residents, including those using private wells, were notified of the presence of the groundwater contamination in a variety of ways – door-to-door contact, letters, public notices and public meetings. Illinois EPA, the Illinois Department of Public Health and the Will County Health Department have been responding to questions and concerns about the tritium contamination over the last year and one-half.

Exelon agreed to pump and recover contaminated groundwater from the aquifer north of the generating station to reduce the tritium concentration in the groundwater. The remedy for removal of tritium water in the plume has been in effect for nearly a year and has stopped the movement of the groundwater plume.

Concentrations of tritium in the plume continue to decrease over time. The work on the remedy will continue until the threat to off-site wells is eliminated.



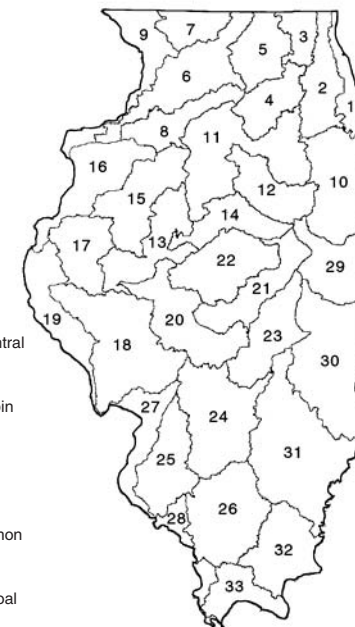
*“...By thy rivers gently flowing,
Illinois, Illinois.”*

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 87,110 stream miles of rivers and streams, 91,400 inland lakes and ponds within its borders, and 1,089 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 Governor Blagojevich's 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.

THREATS

Past practices and emerging challenges require continuing vigilance on a variety of specialized fronts.

Mercury Contamination of Fish Tissue

Illinois routinely tests fish tissue to identify levels of toxic substances that tend to accumulate in fish and could pose health risks to the public eating locally-caught fish. 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 2004, tests indicated that fish in eight lakes and over 1,000 stream miles had mercury levels that warranted additional, specific consumption warnings.

Mercury can enter water from industrial or municipal wastewater, from historical contamination of sediments or can be deposited from the air (mainly power plant or industrial emissions). Illinois EPA will need to develop plans to reduce the amount of mercury entering the state's lakes and streams.

Watersheds

A watershed is the area that drains to a waterbody (a river, lake or stream). Illinois has 33 separate, defined watersheds, identified in the adjoining map. Almost all watersheds deliver a variety of pollutants to their downstream waterbodies. Rarely are surface waters impacted by only one source of pollution, since with few exceptions, every land-use activity is a potential source of water pollution. Because of their importance in overall water protection efforts, the Illinois EPA is focusing on watershed management to reduce water pollution.

Rivers and Streams Assessment

The quality of the state's surface waters plays a fundamental role in the overall health of the environment and has a direct bearing on the economic and recreational opportunities avail-

able. Public interest in water quality has increased significantly in recent years.

The miles of rivers and streams that are assessed by the Illinois EPA have increased tremendously since passage of the federal Clean Water Act in 1972. Likewise, the quality of river and stream resources has improved dramatically due to ongoing efforts to control both point source ("end of pipe") and nonpoint source (runoff) pollution control efforts.

Because of the large number of Illinois lakes and streams, they must be assessed on a rotating basis, so ratings from specific years do not convey complete overall appraisals, but long term data between initial conditions in 1972 and the present provide a good comprehensive look at improvements.

In 1972, the percentage of miles of streams assessed as being in "good" condition was only 11.3 percent. Today, 62 percent are in good condition.

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. Commitment 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.

Since development of TMDLs began in 2000, 498 TMDL evaluations have been started, and 204 have been approved. Work on the others is at various levels of completion.

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 nonpoint source pollution problems and related resource 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 2005 and 2006

In 2005, Illinois Section 319 programs received a total of \$8,256,300 in funding for all categories.

In 2006, these programs received a total of \$8,134,900, for a combined total of \$16,391,200 for the two years.

These grants supported efforts that prevented 2,386 tons of sediment, 139,302 pounds of total suspended solids, 5,725 pounds of phosphorus, and 3,449 pounds of nitrogen being discharged to Illinois water bodies in 2005 and 2006.

Additional reductions are expected to occur in future years as the projects begun in 2003 and 2004 are fully implemented.

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

Priority Lake and Watershed Implementation Program (PLWIP)

In June 1995, the Illinois state legislature passed the Conservation 2000 program, author-

izing funding to implement the Illinois Lake Management Program Act (ILMPA).

Originally passed in 1989, ILMPA established four comprehensive objectives: 1) public education, 2) technical assistance, 3) monitoring and research, and 4) financial incentives for local lake management implementation. With the passage of Conservation 2000, the Illinois Environmental Protection Agency was able to initiate several programs designed to protect, restore, and enhance inland lakes.

One such program is the Priority Lake and Watershed Implementation Program (PLWIP). PLWIP is a reimbursement grant program that was started in 1997. Through this program the Illinois EPA works cooperatively with managers of publicly-owned inland lakes to implement lake protection, enhancement, and restoration activities. Although a local dollar match is not required for the PLWIP program, it is desirable.

For a lake to qualify for the program, it must meet the criteria of a priority lake. Priority lakes are defined by the Illinois EPA as unique, high quality aquatic resources, those which serve multiple purposes (e.g., recreation and public water supply), or in need of protection or restoration.

In 2005, eight such projects were awarded a total \$165,000 while in 2006 four projects received \$113,935.

PLWIP funding is targeted at lakes where the lake is publicly-owned, causes and sources of pollution are apparent, work sites are easily accessible and visible, project size is relatively small, and local management entities are in a position to quickly implement selected treatments.

Reimbursement may be up to 100 percent and projects have a maximum allowance of \$40,000 and must be done within a 1 1/2 year period. Projects typically begin in August or September following grant approval.

Fundable Projects include shoreline stabilization; erosion control using rip rap, vegetative or bioengineering methods; aerator or destratifier installation; near-lake dry dams; buffer strips; spillway or dam repair; best management practices in the immediate watershed area; macrophyte harvesting to address public access. Dredging projects are not typically funded.

SINCE 2005, MORE THAN 25,000 VOLUNTEERS HAVE WORKED TOGETHER TO CLEAN UP ILLINOIS LAKE SHORES AND STREAMBANKS IN THEIR AREAS.

The Illinois EPA's Streambank Cleanup and Lakeshore Enhancement Program started in 2003, helps volunteers around the state conduct productive cleanups of stream banks and shorelines in their areas.

Using federal funding that provides grants ranging from \$500 to \$3,500 the Illinois EPA's Streambank Cleanup And Lakeshore Enhancement (SCALE) Program is providing financial help to local volunteer groups around Illinois for cleanups of stream and river banks and stretches of lake shore.

In the program's first four years, more than 164 cleanups were conducted including 74 in 2005-2006. The Hegewisch Chamber of Commerce coordinates their cleanup on Wolf Lake with their neighbors from the east - Indiana. The lake straddles the state line, and so does the litter. A total of 125 people worked to clean up a 4.5 mile area of lake shore.

In 2005, when the Friends of the Chicago River held their annual "Chicago River Day" they estimated that 3,700 persons helped to clean up



Young people clean up Chicago River shoreline during a SCALE event.

approximately 157 miles of river bank. Some were in boats, some on land, some halfway-in-between, retrieving material that included food-related, car-related, and bedding materials.

In 2006, the Lower Kaskaskia Stakeholders Inc. pulled an entire set of kitchen appliances from the river, including the infamous kitchen sink.

The Friends of the Illinois River continue to dedicate volunteer time to wash bottles before separating the items into recycle bins.

In 2005 the Northern Illinois Anglers Association had 550 volunteers on land and water to collect an estimated 80 tons of litter from the Kankakee River and tributaries.

All recovered material is recycled when possible, and disposed of properly if recycling is not an option.

In 2005's program, 11,467 participants from 44 groups removed 510 tons of litter and debris from 805 miles and 1,193 acres of state water-fronts. During 2006, 42 groups involved 13,742 participants in cleanups that removed 1,206 tons of garbage from 739 miles of streambank and 875 acres of lakeshore.

Fifteen of the 30 groups funded in 2006 have participated in SCALE since it began in 2003. Many of the groups have seen a significant reduction in trash levels at their cleanup sites. Some have moved on to other areas to broaden their approach.

THE LAKE EDUCATION ASSISTANCE PROGRAM (LEAP)

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 2005, 91 recipients received \$42,028 for lake projects and education. In 2006, 88 applicants received \$36,643.

The projects ranged from building a small pond on the school grounds to making a study of a community lake by a fifth grade class and



LEAP grants from IEPA pay for field trips to nearby lakes for Illinois students.

making a report to the city council as to the health of the lake.

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 2005, the Illinois VLMP celebrated its 25th anniversary and is one of the Agency's most successful and long-standing 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.

All VLMP participants measure their lake's water clarity using a Secchi disk. Although there are variations to what a Secchi disk looks like, it is typically an 8" diameter metal or plastic disk with alternating black and white quadrants. There is either a rope or measuring tape attached to easily mark the depth at which the



Longtime VLMP participant Kim Cambron of the Champaign County Forest Preserve District uses a Secchi disk in Sunset Lake.

Secchi disk can no longer be seen once lowered into the water. This is called the Secchi Depth or Secchi Transparency. How far the Secchi can be seen into the water column gives lake scientists a general idea of water quality and the productivity of the lake. Varying amounts of sediment and/or algae cells can yield different transparency results. VLMP volunteers use a color chart to try to explain further what their lake's transparency is telling them. Is their transparency limited more by algae or by sediment?

Some VLMP participants are in the Advanced Water Quality portion of the program. These volunteers collect additional parameters, such as, chlorophyll, suspended solids and nutrients – total phosphorus, nitrate-nitrite nitrogen and ammonia nitrogen. These parameters provide more detailed information for the lake scientist to consider when deciding the factors that may be affecting the lake.

All of this data gives volunteers insight into what may be taking place in their lake and watersheds and will help them to make more informed decisions to better manage their lakes. Illinois EPA also uses this data in making general water quality use assessments.

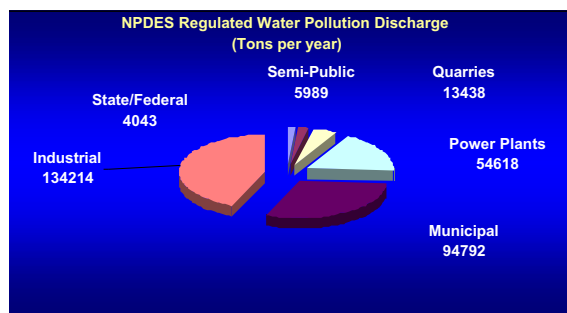
ILLINOIS WATER POLLUTION CONTROL - COMPLIANCE PROGRAM

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.

This chart illustrates the number of tons of pollutant load discharged per year in Illinois from industrial, municipal, power plants, quarries, semi-public, and State/Federal NPDES permitted dischargers. Industrial facilities are largely made up of manufacturing facilities. Municipal dischargers include publicly owned



wastewater and drinking water systems. Power plants are facilities which generate electric energy. Quarries mine sand and gravel. Semi-public facilities include utility companies, residential subdivisions and homeowners associations. State/Federal facilities include public parks, campgrounds, prisons, and military installations.

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.

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



IEPA inspectors visit numerous facilities throughout the year and work with treatment plant operators.

numerous types of inspections, including evaluation, sampling, reconnaissance, pretreatment, grant/loan, livestock, stormwater, 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 confined animal feeding operations. Increased inspections of these entities have resulted in increased compliance and enforcement follow-up actions taken by the Agency. During 2005-2006, 532 violation notices were issued for wet weather related violations.

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.

The compliance rates with NPDES permit limits for Illinois major dischargers has been 97 percent, 96 percent, and 97 percent for calendar years 2005, 2006, and 2007 respectively.

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. There are currently 299 operators using the system to submit eDMRs for 1,396 NPDES facilities. 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.

On average, 93 percent of the total population receiving drinking water was served water that complied with limits on regulated impurities. This high percentage was maintained despite the start up of new rules on naturally occurring radium in drinking water and on substances resulting as by-products from disinfection of source water.

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 by-

products, 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. During 2004, 89 percent of CWS required to issue public notice did so in a timely and appropriate fashion. Of the remaining 11 percent, more than 75 percent issued public notice, but the notice did not meet all of the public notice requirements.

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.

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 follow-up 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 ground-water 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 non-community 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/>.

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.

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.

Governor's Upper Mississippi River Initiative

Some major sources provide drinking water to consumers in more than one state — the Mississippi River is one of them.

In July 2004, Governor Blagojevich joined the Governors of Minnesota and Wisconsin in calling for joint efforts to restore and protect water quality on the Upper Mississippi River. In addition to joint efforts with Minnesota, Wisconsin, Iowa and Missouri, Illinois EPA is focusing assistance efforts on the twelve Illinois communities that use the Mississippi River as a source of drinking water. They are:

Rock Island County	East Moline
	Moline
	Rock Island
	Arsenal
	Rock Island
Hancock County	Nauvoo
	Hamilton
	Warsaw

Adams County	<i>Quincy</i>
Madison County	<i>Illinois American Water Co./Alton</i> <i>Illinois American Water Co./Granite City</i>
St. Clair County	<i>Illinois American Water Co./East St. Louis</i>

Source water protection includes identifying and managing activities that threaten to contaminate a lake, stream or groundwater used to supply drinking water. Major threats on large rivers include spills and urban or agricultural runoff. The assistance effort began in Quincy in September 2004 with a tabletop emergency response exercise focused on spills and a planning activity for reducing non-point source pollution in the watershed. Financial assistance was offered to implement source water protection activities. Workshops were completed during 2005.

INFRASTRUCTURE PLANNING AND FINANCIAL ASSISTANCE LOAN 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, now featuring two low interest revolving loan programs that have together distributed nearly



The massive “Deep Tunnel” project in the Chicago area to divert stormwater has received numerous IEPA loans.

\$2.4 billion in state and federal funds to communities around the state. These loans assist local governments with the installation 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 added authorization for the drinking water program (PWSLP) in 1997. Through 2006, a total of 464 CWSRF (wastewater) and 223 PWSLP (drinking water) infrastructure loans have been made, with funding provided through the joint programs now at \$2.379 billion and counting.

During 2005, a total of 32 applicants were approved to receive more than \$146.8 million in CWSRF project loans under the program, and in 2006, 23 more were funded at a total dollar level in excess of \$142.1 million. The drinking water program demonstrated similar success, with almost \$46.3 million awarded in 2005 for 20 PWSLP projects, and more than \$42.4 million committed to 16 additional projects in 2006.

Originally, 80 percent of the funding for these 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 2005 and 2006 included:

Metropolitan Water Reclamation District of Greater Chicago/ Calumet Boiler	\$26,379,800
Metropolitan Water Reclamation District of Greater Chicago/ Custer Avenue	\$ 3,641,000
Metropolitan Water Reclamation District of Greater Chicago/ Sheridan Avenue	\$ 3,372,200
Metropolitan Water Reclamation District of Greater Chicago/ Kirie Pump Station	\$20,719,000
Evanston/CSO X-B	\$ 7,012,200
Bloomington-Normal WRD	\$ 5,191,600
Pleasant Hill	\$ 122,100

Urbana Champaign SD	\$ 6,650,400
Springerton	\$ 165,900
Neponset	\$ 544,900
DuQuoin	\$ 6,435,000
Lewistown	\$ 393,000
Germantown Hills	\$ 1,461,400
Fox River WRD	\$ 1,884,100
Forsyth	\$ 911,400
Richmond	\$ 6,996,300
Decatur SD	\$ 1,244,700
Trenton	\$ 213,700
West Frankfort	\$ 143,200
Essex	\$ 1,651,000
Geneseo	\$ 1,000,000
Divernon	\$ 265,200
Waterloo	\$ 9,999,600
Woodlawn	\$ 130,600
Clinton	\$ 464,500
Shumway	\$ 200,400
Romeoville	\$ 25,633,800
Carlyle	\$ 685,000
Chebanse	\$ 4,980,100
East Dundee	\$ 7,200,000
Hebron	\$ 4,921,500
Metropolitan Water Reclamation District of Greater Chicago/Roosevelt Road	\$ 4,221,000
Ottawa	\$ 1,600,000
Sterling	\$ 865,200
MWRDGC—Lake Street Leg	\$ 8,423,000
Evanston	\$11,386,100
Huey	\$ 278,600
Bloomington/Normal WRD	\$15,084,200
Thorn Creek Basin S.D.	\$ 4,387,300
Norris	\$ 412,900
Port Barrington	\$ 1,100,000
Decatur Sanitary District	\$ 744,800

Caseyville Township	\$21,858,600
Rock River Water Reclamation District	\$ 495,400
Rock River Water Reclamation District	\$ 1,225,000
Wilmette	\$ 429,800
Rochelle	\$ 600,000
Pontiac	\$ 2,800,000
MWRDGC—Calumet WWTP Pump Station	\$53,000,000
Alton	\$ 2,589,100
Westville-Belgium Sanitary District	\$ 2,411,000
Lakes Region Sanitary District	\$ 4,800,000
Rock River Water Reclamation District	\$ 2,000,000
Dwight	\$ 4,500,000
West Frankfort	\$ 262,800
Glen Ellyn	\$ 1,508,800

These loans through the WPCLP provide a great variety of benefits and improvements to communities in Illinois. For instance, the Village of Huey was able to couple a \$278,600 loan with a \$1.1 million unsewered communities grant to add a municipal sewer system in the community. On a larger scale, the Metropolitan Water Reclamation District of Greater Chicago secured a \$53 million loan as the first installment on a \$120 million project involving the construction of a new 600 million gallons per day pumping station at the Calumet Water Reclamation facility south of Chicago.

***Drinking Water loans approved
in 2005 and 2006 included:***

Lade	\$ 1,111,800
Batavia	\$ 1,701,300
Sycamore	\$ 845,100
Hamilton	\$ 3,250,000

Caseyville	\$ 2,132,500
Saline Valley Conservancy District	\$ 425,000
Buckley	\$ 375,500
Batavia	\$ 3,023,600
Albers	\$ 139,800
Park Forest	\$15,603,900
Dixon	\$ 2,995,300
Carlyle	\$ 1,399,700
Cutler	\$ 100,000
Corinth Water District	\$ 988,300
Clinton	\$ 1,615,700
Holiday Shores Sanitary District	\$ 1,009,700
Lake Zurich	\$ 2,000,000
North Pekin	\$ 286,900
Petersburg	\$ 4,825,000
Wauconda	\$ 4,246,100
West Frankfort	\$ 1,191,900
Yorkville	\$ 1,947,100
Geneva	\$ 9,931,400
Geneva	\$ 3,187,800
Sycamore	\$ 1,024,400
South Highway Water District	\$ 442,800
Otter Creek Lake Utility District	\$ 674,000
Croppers Subdivision Association	\$ 350,000
Sandoval	\$ 265,900
Caterpillar Trail Public Water District	\$ 9,098,900
Mapleton	\$ 52,300
Port Byron	\$ 173,400
Litchfield	\$12,750,000
Saline Valley Conservancy District	\$ 750,000
East Peoria	\$ 3,768,000
Akin Water District	\$ 603,900
Lebanon	\$ 1,100,000
Kinmundy	\$ 173,500

Like the wastewater program (WPCLP), the drinking water program (PWSLP) is supported by the State Revolving Fund, and it provides assistance to communities for a wide variety of projects. Some loans allow for straightforward and clearly visible improvements for those served by the facilities. In the St. Clair County

City of Lebanon for instance, loan funds supported the construction of a new elevated stor-



New wastewater infrastructure projects are financed through IEPA loans.

age tank and new water main that will eliminate water pressure problems, particularly on the southwest side of town. Other loans serve multiple purposes. In Geneva, for example, PWSLP loans totaling \$21.7 million will assist the community with the construction of a new 8.0 million gallons per day water treatment plant that will allow the city to consistently meet radium standards, improve aesthetics (primarily by reducing water hardness and eliminating the need for in-home water softeners) and meet normal growth rates and increased water demands associated with the “build-out” of the city.

Unsewered Community Grants

In addition to the low interest loan programs funded through the State Revolving Fund, the Illinois EPA also manages a grant program for

unsewered communities in Illinois. During the biennial period, approval was given for five projects, including grants to the communities of Huey (\$1,139,498), Chebanse (\$4,251,504), Shumway (\$983,401), Essex (\$2,325,458) and Springerton (\$509,922).

Amendments to Radium Water Quality Standards

On January 13, 2004, the Illinois EPA proposed to the Pollution Control Board (Board) amendments to the radium water quality standards in 35 Ill. Adm. Code 302. The Board accepted the proposal for hearing and assigned it case number PCB R04-21. The Board held five public hearings and issued a Final Opinion and Order adopting the amendments to the radium water quality standard on February 16, 2006. The amendments were published as adopted rules in 30 Ill. Reg. 4919 (March 17, 2006).

The revised standard sets a 3.75 picoCurie per liter (“pCi/L”) radium 226 and 228 combined General Use and Lake Michigan Basin Water Quality standard that is measured as an annual average. It also establishes an instantaneous Public and Food Processing Water Supply Standard of 5 pCi/L radium 226 and 228 combined. This replaces the previous General Use and Lake Michigan Basin radium water quality standards of 1 pCi/L radium 226, and adds the new Public and Food Processing Water Supply standard.

The revised water quality standard was submitted to U.S. EPA for approval on May 22, 2006.

U.S. EPA granted its final approval of the revised water quality standard on August 9, 2006.

Interim Effluent Standard for Phosphorus

On May 14, 2004, the Illinois EPA proposed to the Pollution Control Board (Board) a new rule establishing an interim effluent standard for phosphorus. The Board accepted the proposal for hearing and assigned it case number PCB R04-26. The Board held two public hearings and issued a Final Opinion and Order adopting the proposed rules on January 19, 2006. The adopted rule was published in 30 Ill. Reg. 2365 (February 17, 2006) and is contained in 35 Ill. Adm. Code 304.

The adopted rule established a phosphorus limit of 1 milligram per liter (mg/L) as a monthly average that would apply to new or expanded discharges from treatment works with a Design Average Flow of 1 million gallons per day or more receiving municipal or domestic wastewater, or a total phosphorus effluent load of 25 lbs/day or more for treatment works other than those treating municipal or domestic wastewater. However, the adopted rule allows a regulated source to demonstrate that phosphorus is not limiting in the receiving water or that alternative phosphorus effluent limits are warranted by the aquatic environment in the receiving water, and the 1 mg/L limit would not apply. Also, this interim effluent standard for phosphorus will not apply to these sources after the Board adopts a numeric water quality standard

for phosphorus and the adopted water quality standard is approved by U.S. EPA.

GROUNDWATER ASSESSMENT

Groundwater assets underlie much of Illinois, offering drinking water resources to consumers in all parts of the state.

Groundwater comes from wells that tap into aquifers at varying depths. Owing to Illinois' geology, the northern third of the state has several high-yielding aquifers and most communities there rely upon groundwater. These aquifers include numerous sand-and-gravel aquifers above the bedrock surface, shallow bedrock dolomite and limestone aquifers (less than 300 feet deep), and deep bedrock limestone and sandstone aquifers (more than 300 feet deep). Water quantity and its quality varies greatly among aquifers. Farms and rural residents all across Illinois rely on private shallow wells for their water supply.

Northeastern Illinois, the state's major consumer of water, depends heavily on water from Lake Michigan. Groundwater pumpage is also a large source of water for many Chicago suburbs. Diversion of lake water averages about 2 billion gallons per day of which 1.1 billion gallons per day is for public water supply, which represents 41 percent of Illinois' total water withdrawals for all purposes, excluding power generation. Water usage values for Illinois must

be used with caution because reporting is voluntary, and many users do not report amounts used.

Groundwater quality is a high priority in Illinois. Water quality degradation or contamination resulting from point and nonpoint sources throughout the state is of concern. In many industrialized parts of the state (including the metropolitan areas of Chicago, Rockford, and East St. Louis) groundwater in glacial deposits and bedrock aquifers has been degraded by improperly contained or disposed of chemicals. In some agricultural areas, the quality of groundwater in the underlying shallow aquifers has been degraded by the routine application of agricultural chemicals. Surface water quality has been degraded in some areas because of the influx of contaminated groundwater. To this end, the Illinois EPA continues to evaluate the question of how good is the water by implementing an ambient monitoring network of community water supply wells. Illinois EPA is working with the Governor's Groundwater Advisory Council to respond to increasing contamination of community water supplies with volatile organic compounds.

The Illinois EPA utilizes this Ambient Network to:

- provide an overview of the groundwater conditions in the CWS wells in Illinois;
- provide an overview of the groundwater conditions in the major aquifers in Illinois;
- establish baselines of water quality within the

major aquifers in Illinois; and

- identify trends in groundwater quality in the major aquifers in Illinois.

Water quality parameters sampled for include: field temperature, field specific conductance, field pH, field pumping rate, inorganic compounds (IOC), volatile organic compounds (VOC), and synthetic organic compounds (SOC).

In addition to the Illinois EPA's Ambient Network, the Illinois Department of Agriculture has implemented a monitoring well network for pesticides in shallow groundwater aquifers to assist with implementation of Illinois' Generic Pesticide Management Plan that has been endorsed by the United States Environmental Protection Agency (U.S. EPA).



*“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. Recent initiatives include:

- establishment of the Office of Brownfields Assistance, which administers one of the pioneering and most successful brownfield redevelopment programs in the nation.
- creation of one of the first Household Hazardous Waste Collection programs in the nation that provides homeowners and consumers with a safe and appropriate alternative for disposal of their hazardous and toxic wastes.
- expansion of the Used Tire Program in response to serious health threats such as West Nile Virus and other forms of encephalitis.

SAFE WASTE MANAGEMENT

In 2005, municipal solid waste generated in Illinois was managed and disposed primarily through four types of operations.

Landfills:

15.8 million tons of municipal solid waste was disposed in 51 landfills in Illinois. One of these landfills also accepted hazardous waste.

Compost Facilities:

393,568 tons of landscape waste was processed at 40 compost facilities in Illinois. An increasing amount is being handled by land application sites or at permit-exempt composting operations located on farms.



Compacting and spreading garbage at a municipal waste landfill

Recycling:

Local recycling coordinators estimate that approximately 7.7 million tons of municipal waste was diverted from disposal through recycling. Amounts of municipal waste generated were estimated to be about 18.5 million tons.

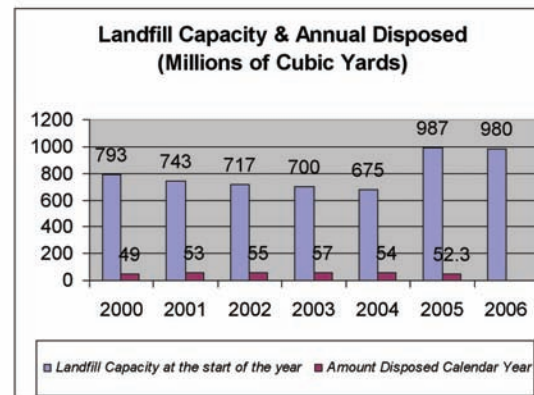
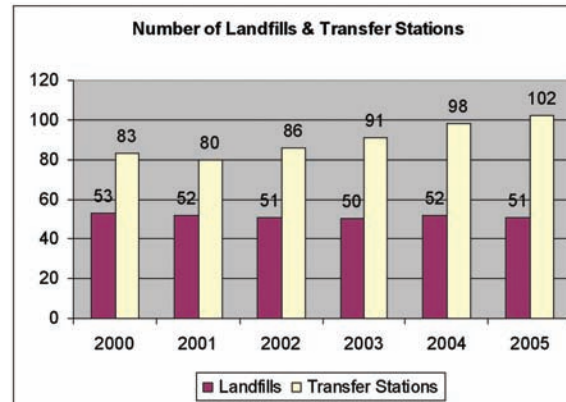
Transfer Stations:

102 transfer stations processed nearly 5.4 million tons of municipal waste destined for either disposal in landfills or recycling markets. However, since the reporting was voluntary, this amount is estimated.

Trends in Solid Waste Management

The trend in Illinois is toward fewer, but larger, regional municipal solid waste landfills complemented by a greater number of local transfer stations.

By 1995, the number of landfills accepting municipal solid waste had dropped from 110 (in 1991) to 58; while at the same time 66 transfer stations were established (mainly in the Chicago Metropolitan Region) to consolidate wastes for transport to other solid waste management facilities. By 2005, twenty years later, the number of municipal waste landfills was 51 and the number of transfer stations increased to



102. Seventy of these transfer stations are located in the Chicago Metropolitan area.

Between 2000 and 2003, landfill disposal capacity steadily decreased. The construction of new landfills and landfill expansions began to keep pace with annual increases in municipal waste disposed in 2004 and 2005. Landfill expansions and new landfills constructed in various parts of Illinois during 2004-2005 included two new landfills, six landfill expansions and one landfill upgrade.

Municipal waste generation rates and landfill disposal capacities vary widely within the various geographic areas of the state. The Chicago Metropolitan area generated more pounds of waste per capita per day (13.1) than any other area of the state and has the lowest landfill life expectancy of 9 years (based on 2005 data).

There is a moratorium against landfills within Chicago's city limits. Land prices are high in Chicago. Therefore, waste generated by Chicago Metropolitan region's population then becomes a state-wide problem for Illinois counties. Also affected is available capacity in at least two adjacent states, Indiana and Wisconsin.

IRID

New funding to crack down on illegal dumps

Governor Rod Blagojevich recommended a Fiscal Year 2006 Budget for the Illinois

Environmental Protection Agency (IEPA) that includes \$5.5 million for Project IRID (Illinois Removes Illegal Dumps), a new initiative that will shut down open dumps, crack down on landfill violators and regulate construction debris disposal sites. The new initiative will be paid for by using a portion of existing fees paid by landfills. The new IRID funding allots \$1.5 million for additional IEPA landfill inspection and enforcement staff who will take on new responsibilities for regulating an estimated 500 abandoned quarries and sand pits in Illinois that are used for disposal of construction and demolition waste. An additional \$1 million would be used for increased grants to county governments that help inspect landfills and open dumping. The remaining \$3 million would go toward cleaning up the estimated 600- 900 open dumps across the state where responsible parties cannot be found, and to assist communities in removing construction and demolition debris from Brownfields sites needed for redevelopment.

The I-RID (Illinois Removes Illegal Dumps) Program is an initiative that will provide the largest state funding in history 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 Operation Section issued an Invitation for Bids to prospective I-RID clean up contractors early in 2006. In April of 2006, a Program Manager and seven field staff were hired. In August, six I-RID contractors were chosen and placed under contract. In September, the Program began to clean up open dump sites throughout the State. In the remaining four months of

2006, I-RID staff completed 48 open dump clean ups removing approximately 7,500 tons of solid waste to landfills for proper disposal, 75 tons of recyclable metals to salvage yards, and 30 tons of tires to permitted tire disposal sites. In FY 2008, the Program has been allocated approximately \$2.25 million to continue its efforts to clean up open dump sites throughout the State of Illinois.



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

Bureau of Land Region Number of I-RID Open Dump Cleanups Completed In 2006

<i>Rockford</i>	<i>6</i>
<i>Des Plaines</i>	<i>7</i>
<i>Peoria</i>	<i>4</i>
<i>Champaign</i>	<i>2</i>
<i>Springfield</i>	<i>5</i>
<i>Collinsville</i>	<i>6</i>
<i>Marion</i>	<i>18</i>
<i>Total</i>	<i>48</i>

CLEANUP OF CONTAMINATED PROPERTIES

Hazardous Substances & Petroleum Cleanups

The Illinois EPA administers six programs that address clean up (or remediation) of hazardous substances and petroleum. Remediated sites are contaminated properties at which health risks have been successfully reduced, controlled, or eliminated. At the end of 2006, almost 90,000 acres had been remediated.

Leaking Underground Storage Tanks (LUST)

Since its inception in 1989, over 13,086 acres have been remediated. Over the past six years, the program has closed more sites than the number of new releases reported.

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 3,400 sites have been enrolled in the program, with 716 sites (or 21 percent of all sites) enrolling in 2005 and 2006.

Since Governor Blagojevich took office, the program has issued over 1271 No Further Remediation Letters (or 65 percent of all

Letters issued) designating successful completion of cleanup activities.

Superfund (National Priorities List or NPL) Program:

As the Superfund program finished its twenty-fourth year, construction had been completed at 26 of the 51 NPL sites in Illinois. Completion of construction qualifies the site for deletion from the NPL. This represents over 4,835 acres remediated toward the 2005 goal of 6,000 acres remediated (or 80.58 percent of the goal). 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 completed at 47 federal sites (or 41,890 acres) in Illinois.

RCRA Corrective Action Program:

This program directs owners and operators of hazardous waste management facilities in

the cleanup of releases from regulated units, 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 2005 and 2006, 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 2006, over 1,167 acres were remediated by this program. The program also concentrated its efforts on stabilizing 33 abandoned landfills as part of a five-year statewide public works program. At the end of 2006, 23 of these landfills had corrective action completed, and six were in various stages of planning.

2005/2006 Used Tire Program:

Since the inception of the Illinois EPA’s Used Tire Program in 1990, more than 15 million used and waste tires have been removed from the environment and properly disposed through the Illinois EPA’s collection and enforcement programs. During 2005/2006, the Illinois EPA removed more than 23,500 tons of used and waste tires from the environment, which is the equivalent of 2.1 million passenger tires.

Included in the removal activities were 83 countywide used tire collections throughout the state. 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 programs and to further develop and promote quality end use markets for used tires.

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 mosquito 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 over 1000 inspections at used tire facilities and responds to over 500 complaints from local officials and citizens annually. To crack down on illegal tire dumps, “Project TREAD” (Tire Reduction, Education and Disposal) was launched under Governor Blagojevich’s administration to recruit citizens

and local officials to report improperly discarded tires to the Illinois EPA and local enforcement officials. For more information on Project TREAD and the Illinois EPA's Used Tire Program, please contact the Illinois EPA at (217) 785-8604 or visit: <http://www.epa.state.il.us/land/tires/index.html>.



IEPA has collected millions of waste tires for recycling.

Household Hazardous Waste Collections:

With the assistance of local governments, the Illinois EPA sponsored 58 household hazardous waste collections in 2005 and 2006 at a state cost of over \$3.3 million that does not include Illinois EPA administrative expenses or the costs to local co-sponsors for publicity, traffic control, or other local service. Over 9,300 drums (enough to fill over 100 semi-truck trail-

ers) of waste were collected. Since the program began in 1989, 429 one-day collections have been held, with more than 74,000 drums being collected from approximately 379,000 households and disposed at permitted hazardous waste facilities or recycled. Illinois EPA assists communities with the costs of disposal of household hazardous waste collected at long-term collection facilities and locally sponsored collection events. Long-term collection facilities operate in Naperville (since October 1992) and Rockford (since 1995) and in the City of Chicago since June 2006. The Solid Waste Agency of Lake County conducts Household Chemical Waste collections at various locations in the county. In 2005 and 2006, the Illinois EPA provided over \$1.4 million for the disposal of more than 8,518 drums of household hazardous waste at these operations.



Household hazardous waste drop-off

School Hazardous Waste Collections:

In 2005 and 2006, the Illinois EPA, in partnership with 312 schools, collected over 949 drums of hazardous materials, such as laboratory wastes, expired chemicals, unstable compounds, mercury containing items, toxic or flammable materials, at an average annual state cost of \$282,182. Since 1996, the Illinois EPA has conducted 653 hazardous education waste collections. In 2007, the Illinois EPA re-expanded the school hazardous waste collections program to assist schools through June 2010.

Partners for Waste Paint Solutions:

About 25 percent of the waste collected during the Household Hazardous Waste Collections is paint. To address this large volume item 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 will be reformulated or remixed for reuse. Unusable paint is managed by the Illinois EPA. In 2005 and 2006, the Illinois EPA coordinated with 21 paint partners to collect, reformulate and reuse over 34,800 gallons of unwanted paint products from the public. The reformulated paint was donated or resold. Another 85,635 gallons of paint was bulked for fuel blending or disposal. The cost incurred in 2005 and 2006 by Illinois EPA for this program was \$328,522.

Industrial Materials Exchange Service:

Illinois EPA maintains an Industrial Materials Exchange Service (IMES) to provide a clearinghouse for businesses to offer waste by-products, off-spec items, and overstocked, damaged or unwanted materials for reuse, rather than disposal. Since 1981, over 693 million gallon equivalents have been diverted from disposal at an estimated cost saving of \$259 million. In 2005, the IMES contained 607 material listings. Of these listings, 108, or a total of 136.2 million gallon equivalents, were diverted from disposal. The estimated cost savings to industry was estimated at \$79.5 million.

Countywide Waste Tire Collections:

Since 1990, the Illinois EPA has co-sponsored 488 Countywide Used Tire Collections, resulting in the collection and recovery of 73,100 tons of used tires, which is the equivalent of nearly 6.5 million passenger tires. During 2005 and 2006, Illinois EPA co-sponsored 83 countywide used tire collections resulting in the collection and recovery of 16,240 tons of used tires, which is the equivalent of 1.3 million passenger tires. The 83 collection events held over this 2-year period represents the largest number of collections ever held over a 2-year period. 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, and crumb rubber for use on athletic fields and in the manufacturing of various rubber products.

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, 128 municipalities have been awarded over \$17.5 million. In 2005, \$962,827 was awarded to 13 municipalities, while in 2006; \$998,503 was awarded to 12 municipalities.

Grants issued since the Inception of the Program: Municipality (Grant Amount, Including All Budgetary Amendments)

Alton	(\$206,706)
Arthur	(\$ 41,836)
Augusta	(\$240,000)
Aurora	(\$119,994)
Barrington Hills	(\$239,898)
Bartlett	(\$240,000)
Bartonville	(\$119,959)
Bedford Park	(\$240,000)
Belleville	(\$114,108)
Bellwood	(\$120,000)
Belvidere	(\$240,000)
Blue Island	(\$239,977)
Braidwood	(\$ 38,985)
Broadview	(\$240,000)

Brookfield	(\$102,968)
Burnham	(\$120,000)
Cairo	(\$33,515)
Calumet City	(\$182,210)
Canton	(\$240,000)
Carbon Cliff	(\$42,277)
Chicago Heights	(\$240,000)
Cicero	(\$105,486)
Collinsville	(\$128,887)
Crete	(\$102,703)
Decatur	(\$59,626)
De Kalb	(\$94,827)
Des Plaines	(\$ 50,656)
De Pue	(\$119,995)
Dixon	(\$111,610)
Downers Grove	(\$183,600)
Du Quoin	(\$73,152)
East Moline	(\$239,943)
East Peoria	(\$240,000)
East St. Louis	(\$58,666)
Easton	(\$61,970)
Effingham	(\$33,005)
Elgin	(\$180,976)
Eureka	(\$111,991)
Farmington	(\$ 35,361)
Ford Heights	(\$240,000)
Franklin Park	(\$224,137)
Freeport	(\$240,000)
Fulton	(\$161,970)
Galesburg	(\$ 70,600)
Geneva	(\$ 9,220)
Gillespie	(\$100,414)
Glencoe	(\$240,000)
Glen Ellyn	(\$ 14,264)
Granite City	(\$ 42,505)
Grayslake	(\$ 45,344)
Harrisburg	(\$ 79,784)
Harvey	(\$136,810)
Havana	(\$ 92,469)
Hoopeston	(\$134,485)
Justice	(\$ 25,891)
Karnak	(\$ 70,169)

Lacon	(\$206,995)
La Grange	(\$119,766)
Lanark	(\$ 21,261)
Lansing	(\$240,000)
LeRoy	(\$163,005)
Lemont	(\$174,886)
Lincolnshire	(\$2 5,253)
Lockport	(\$117,742)
Lynwood	(\$ 46,757)
Machesney Park	(\$107,341)
Macomb	(\$ 49,245)
Marion	(\$114,840)
Markham	(\$120,000)
Mattoon	(\$178,209)
Maywood	(\$110,523)
Mendota	(\$111,843)
Metropolis	(\$ 46,282)
Minooka	(\$100,254)
Moline	(\$193,416)
Monticello	(\$239,618)
Morton Grove	(\$ 56,382)
Mt. Carmel	(\$ 81,817)
Mt. Vernon	(\$138,037)
Naplate	(\$ 37,954)
New Athens	(\$ 81,413)
Normal	(\$133,358)
North Chicago	(\$ 89,762)
Olney	(\$240,000)
Palatine	(\$240,000)
Pana	(\$120,000)
Park City	(\$119,598)
Park Forest	(\$144,875)
Peoria	(\$ 88,622)
Phoenix	(\$102,900)
Pittsfield	(\$ 75,302)
Plano	(\$211,715)
Posen	(\$240,000)
Princeton	(\$173,333)
Quincy	(\$132,044)
Rantoul	(\$103,432)
Raymond	(\$ 69,551)

Riverdale	(\$240,000)
Robbins	(\$240,000)
Rockford	(\$240,000)
Rock Falls	(\$240,000)
Rock Island	(\$240,000)
Roselle	(\$ 61,342)
Rosemont	(\$192,387)
Rosiclar	(\$139,719)
Rossville	(\$154,220)
Schaumburg	(\$ 12,164)
Silvis	(\$214,109)
Skokie	(\$ 59,684)
South Beloit	(\$239,994)
South Chicago Heights	(\$240,000)
Spaulding	(\$107,103)
St. Charles	(\$240,000)
Sterling	(\$239,625)
Streator	(\$239,940)
Summit	(\$239,903)
Sycamore	(\$196,572)
Tallula	(\$ 97,165)
Thornton	(\$134,582)
Tonica	(\$ 67,169)
Wauconda	(\$176,844)
Waukegan	(\$ 72,425)
Wheeling	(\$240,000)
Wood Dale	(\$ 38,248)
Woodstock	(\$ 80,149)
Yorkville	(\$ 95,938)
Zion	(\$237,714)

***New Grants Issued in 2005 and 2006:
Municipality (Grant Amount)***

Augusta	(\$ 74,355)
Aurora	(\$119,994)
Bellwood	(\$120,000)
Blue Island	(\$119,977)
Cairo	(\$ 33,515)
Decatur	(\$ 59,626)

De Pue	(\$119,995)
Easton	(\$ 61,970)
Ford Heights	(\$120,000)
Galesburg	(\$ 70,600)
Granite City	(\$ 42,505)
Lanark	(\$ 21,261)
Mattoon	(\$ 56,136)
Maywood	(\$110,523)
Metropolis	(\$ 20,822)
Minooka	(\$ 39,529)
Pana	(\$120,000)
Park Forest	(\$120,000)
Phoenix	(\$ 102,900)
Raymond	(\$ 69,551)
Rock Falls	(\$120,000)
Roselle	(\$ 61,342)
Schaumburg	(\$ 12,164)
Spaulding	(\$ 22,490)
Tallula	(\$ 36,658)
Tonica	(\$ 67,169)
Wood Dale	(\$ 38,248)

***Brownfield Cleanup Revolving Loan
Fund:***

Illinois EPA administers this fund providing loans up to \$425,000 per site to municipalities to clean up former industrial sites. In 2005 and 2006, loans totaling \$725,000 were granted to 2 municipalities.

Brownfield Site Restoration Program:

This program, administered by the Illinois EPA and the Illinois Department of Commerce & Economic Opportunity, provides reimbursement to persons who voluntarily remediate brownfields if the remediation leads to a “net economic benefit.”

Brownfield Representatives:

Brownfields representatives act as a liaison for communities to various Illinois EPA technical, financial, and regulatory staff. In 2005 and 2006, representatives assisted 25 municipalities on 36 brownfields project sites.

Targeted Site Assessments:

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.

Case Study: Paxton II Landfill and Lake Calumet Area Cluster Sites Southwest Chicago ***Area: 87 acres***

Starting at least as far back as the 1940s, an 87-acre marshy area in southeast Chicago near Lake Calumet that has been strip-mined for sand to be used in the steel mills of the area, became a massive dumping ground for large amounts of industrial and municipal waste from the metropolitan region, as thousands of drums of chemicals, slag from steel mills and solvents from refineries were either disposed in the strip-mined areas, or were often improperly managed at an incinerator that formerly operated there. With most of the disposal activity starting long before environmental regulations took effect, difficulty in identifying responsible parties and landowners, and in some cases parties continu-

ing to operate illegally in defiance of enforcement efforts, the “Lake Calumet Cluster Sites” has been one of the biggest environmental cleanup challenges in the Chicago area and in the State of Illinois.

Sampling of soil and groundwater in the area had long revealed a toxic stew of chemicals, such as PCBs, organics, heavy metals—more than 130 chemicals in all detected at concentrations above what triggers corrective or remedial action.

Fortunately, there are few nearby residences to this industrial area, but there is a surprisingly rich ecosystem of marshes and abundance of birds and wildlife, including Indian Ridge Marsh, which is the largest known rookery of the black-crowned night heron in the state, for example.

In early 1999, an engineering study done for Illinois EPA warned of the potential of a catastrophic collapse of one or more slopes of the nearby towering 170-foot high Paxton II landfill, actually the highest non-structural point in Cook County at its top. Unless something was done, the mountain of garbage could collapse causing a “garbalanche” releasing several hundred thousand cubic yards of garbage, spilling millions of gallons of contaminated leachate (garbage mixed with rainwater) onto adjacent properties, attracting and dispersing disease-carrying vermin, and potentially igniting potential fires and explosions when the high internal temperatures and flammable gases would suddenly be exposed to oxygen. Improperly con-

structed and poorly operated, the landfill had extremely steep and unstable slopes as well as little cover over much of the refuse.

The Legislature responded to a request by the Illinois EPA for state funds to avert this potential disaster and later in 1999, work started on a stabilization effort to reduce the threat of collapse from ongoing erosion and the buildup of liquids within the landfill. The top had developed a bowl-shaped depression, collecting rain and snow that percolated into the landfill and eroded the sides.

Over the next five years, around \$20 million was spent extensively re-grading, re-contouring and capping the top 15 acres of Paxton II to prevent erosion. The Illinois EPA also installed an innovative drainage system that utilizes used tires, as well as an extensive leachate management system that collects an average of 10,000 gallons per day, and 24 gas collection wells and a flare have also been installed to capture and destroy methane and other gases.

One of the last steps in the project was the planting of prairie grasses on the new cap and the slopes of the landfill to aid in preventing erosion.

But a problem arose when phragmites, a tall reed that grows up to 13 feet high begin crowding all the other plants out in the first two years of 2003-2004, noted Stan Komperda, the former IEPA Bureau of Land project manager who oversaw most of the Paxton II stabilization work. Komperda came up with the idea of goat

grazing after hearing of their use to control vegetation in California. Because of the size of the site and steep slopes, normal mowing and weeding operations would be difficult and expensive, but was a natural terrain for goats, Komperda noted. “The goats eat the phragmites and like the broadleaf plants and tend to ignore the grasses so we decided to give them a try and they have been effective and the prairie grasses are now taller than the surrounding weeds.”

The Paxton II goat herd came from Rainy Acres Farm in Wilmington, operated by Dave and Mary Stowe. During the first spring and summer in 2005, wild dogs and coyotes posed a threat to the goats, so livestock fences and pens were added and the next year, Jack and Spike joined the Paxton II site maintenance team. Jack and Spike are Great Pyrenees dogs, a breed renowned as shepherds, each weighing about 120 pounds. They were raised with the goats and trained to herd them and protect them from potential predators. Jack and Spike excelled at protecting their flock and no goats were lost in 2006, as they made their daily contribution of grazing up and down the slopes of Paxton II and eating not only the phragmites but other weeds, such as Canada thistle and sage that also tend to crowd out the prairie grasses. The prairie grasses are the most desirable plants because they are the most effective in preventing erosion. The lush vegetation that covers the site now dramatizes how far Paxton II has come from being a “really big pile of rotting garbage that had no vegetation—it was like a moonscape,” Komperda said.



Goats do the “weeding” to keep the prairie vegetation cover in place at recontured Paxton II landfill.

Besides the domesticated goats, wildlife such as white-tailed deer and hawks can now be seen on Paxton II and the adjacent Lake Calumet Cluster Sites. Other wildlife includes pheasants, geese, cranes, box turtles, ducks, and seagulls.

Meanwhile, during the Paxton II project, community groups, Illinois EPA, U.S. EPA, and the City of Chicago Department of the Environment, who had been meeting since the mid-1990s, continued to discuss strategies for implementing a wider cleanup that would address the Cluster Sites’ problem of a lack of proper capping, potentially allowing the area to be used as open space with very controlled public viewing of birds and other wildlife. The Lake Calumet Cluster Sites Workgroup began with a petition from the Southeast Environmental Task Force to U.S. EPA asking for Superfund monies to address this group of individual but adjacent sites. Their idea was to “cluster” or bundle the sites so as to qualify for

the National Priority List (NPL), better known as Superfund.

The Cluster Sites consist of the Alburn Incinerator, U.S. Drum II, Paxton Avenue Lagoons and “Unnamed Parcel.”

Although IEPA and U.S. EPA had undertaken previous hazardous waste removal and remediation in parts of the Cluster Sites area in 2000, Illinois EPA initiated a significant investigation of the Cluster Sites, including digging 134 test pits and taking 283 samples. It and subsequent investigations have indicated that the Alburn and U.S. Drum sites, for example, still contain wastes at depths of more than 30 feet.

Approximately 400 potentially responsible parties that had sent waste materials to the area were identified and U.S. EPA held negotiations with many of them for more than two years without success on reaching an agreement to fund an acceptable cap for the site. The capping discussions for the 87-acre Cluster Sites were complicated by the daunting cost of bringing in clean fill dirt and other materials to cover the waste areas and collect methane gas emissions. Dealing with the groundwater contamination was also an issue but ultimately deferred to a future remedial action. These efforts continued while the application process for designation as a National Priority List or Superfund site moved forward.

Then in 2006, an unusual opportunity came along to move the cleanup forward. The Illinois Department of Transportation was undertaking a massive reconstruction project on the Dan

Ryan Expressway in Chicago and needed to dispose of more than a million cubic yards of soil. Under an intergovernmental agreement proposed by the Illinois EPA's Bureau of Land, IDOT agreed to pay IEPA \$19 a cubic yard to take at least 1 million cubic yards of the soil to the Lake Calumet Cluster Sites area, and will pay the costs of implementing the capping remedy. The soil contains "very tight clay that is suitable for what we want to do and it would have cost us at least \$10 million to buy it," noted Eric Runkel, the Bureau of Land project manager for the Lake Calumet Cluster Sites.

At the same time, the agreement also benefited IDOT and its project cost, since disposing of the soil otherwise could have cost them up to \$7 per ton, Runkel added.

IDOT sampled in 100-foot grids to assure soil being sent to the Cluster Sites meets IEPA's TACO (Tiered Approach to Corrective Action Objectives) for safe use in residential areas, Runkel said.

Starting in the early spring of 2006, long convoys of trucks from the Dan Ryan project began arriving at the Lake Calumet Cluster Sites, initially stockpiling the soil on the adjacent old Paxton I Landfill site, while site preparation work began on other properties where unauthorized disposal of industrial slag and other waste occurred.

In September 2006, U.S. EPA concurred with Illinois EPA's plan for addressing the soil contamination in the "Cluster Sites." IEPA was also

designated the lead agency, following a "Focused Feasibility Study" financed with some of the payment from IDOT that proposed innovative ways of using many of the materials already in the area to reduce the cost of the cap.

The plan, or "Record of Decision," includes bio-solids provided from the nearby Metropolitan Water Recovery District facility to be tilled into the topsoil cover and seeded with vegetation; a geotextile layer; a drainage layer with non-reactive material, such as crushed concrete; a low-permeability multi-layer clay cap using the Dan Ryan project soils to prevent further rainwater infiltration; and a gas management layer, using steel slag material in the area at no additional cost. The estimated total cost of the remedy, including engineering and construction, was about \$18.9 million, or essentially identical to the payment being made by IDOT for the Dan Ryan project soil disposal.



A long procession of trucks deposits clean fill from the Dan Ryan project at the cluster sites in 2006.

***Case Study: Municipal Brownfields
Redevelopment Grant (MBRG) Funds
Location: Barrington, IL
Area: 55 acres***

In 1930, the Jewel Tea Company developed a 55-acre tract of land for various industrial and manufacturing purposes, mostly food and dry-goods production and storage. The facility was closed and abandoned in the mid-to late 1990s and sat abandoned for several years. Although ownership of the site did change over several years, redevelopment was not generally considered feasible because of significant demolition cost associated with the massive concrete five-story, 265,000 square foot primary manufacturing facility, which quickly became a favorite hangout for area youths and gangs, and because of perceived environmental problems associated with historical operations at the site.

In a 2002 Referendum, the citizens serviced by the Barrington Park District (Village of Barrington, South Barrington, North Barrington, Barrington Hills, Deer Park Lake Barrington and Tower Lakes) approved an \$11.5 million bond authorizing the Barrington Park District to purchase the abandoned 55-acre site, demolish existing structures and investigate and remediate the site as necessary.

In November 2002, the Village of Barrington Hills, on behalf of the Barrington Park District, received a \$120,000 Municipal Brownfields Redevelopment Grant to conduct investigation activities at the site. Funds were earmarked

exclusively for investigation and cleanup activities at the former Jewel Tea facility and marked a unique partnership between the Illinois EPA, Barrington Hills and the Barrington Park District. The original grant was amended twice to the maximum grant amount of \$240,000.

Grant funds were used to conduct investigation and remediation activities. In addition to the municipal grant, the Illinois EPA conducted several on-site investigations to supplement grant-funded activities and the office of Brownfields Assistance provide ongoing technical and redevelopment support.

The site is enrolled in the Site Remediation Program and has received a draft No Further Remediation letter.

The Park District has developed the former 55-acre Jewel Tea site into a multi-media mixed use, full access park and nature preserve featuring a one-of-a-kind handicapped accessible, multilevel tree house.

The Barrington Park District, for its work on the development and creation of the Citizens Park, recently received the prestigious Daniel Flaherty Award from the Great Lake Training Institute, which is a national award for creative and innovative park design, and the 2007 Illinois Masonry Award for innovative design and use of natural and stone materials in the design of park structures.

Case Study: Asbestos Remediation at Abandoned Schools
Remediation of Abandoned Schools
Locations: Thebes, Magnolia, and Newman
Area: 3 acres

During 2005, the State Response Program began addressing asbestos in abandoned school buildings based on the human health threat from exposures posed by dilapidated, asbestos containing schools located throughout the State of Illinois. This work does not include non-school abandoned buildings, which may pose the same or greater risk from asbestos. Due to the condition of these former schools, it is highly likely that asbestos fibers are being released to the environment and coming in contact with humans. The imminent threats from these former schools are physical hazards and asbestos exposure to trespassers and nearby residents, however, if a fire were to occur, asbestos would be released into the air and deposited throughout the communities and potentially inhaled by residents. City officials of the majority of the schools noted arson as a serious concern. These once functional and prospering schools have become eyesores and threats to the communities they once served.

The following are abandoned schools where asbestos abatement has been completed in 2005 and 2006:

Thebes – Alexander County. Asbestos abatement and wet demolition of building completed December 2005. After utilizing a U.S. Environ-

mental Protection Agency grant and an offset of disposal costs through a Supplemental Environmental Project (SEP), the total amount spent by the State was \$378,813.

Magnolia – Putnam County. Asbestos abatement and wet demolition of building completed August 2006. After utilizing an offset of disposal costs through a SEP, the total amount spent by the State was \$206,461.

Newman – Douglas County. Asbestos abatement and wet demolition of building completed November 2006. After utilizing a U.S. Environmental Protection Agency grant and an offset of disposal costs through a SEP, the total amount spent by the State was \$432,993.

Cleanup of these former schools will enable the communities to benefit in the following ways:

(1) an environmental threat is removed from the community, (2) property values of the nearby residents will increase, (3) the property can be utilized, bringing jobs and taxes to the commu-



Magnolia School in Putnam County

nity. To date, work has only been completed in those communities where the city is the owner of the property in order to prevent a private individual or others from benefiting from the money spent by the State.

Case Study: Redman Road I-RID Cleanup

Location: Alexander County

Area: 1 acre

An Illinois Removes Illegal Dumps (IRID) Program cleanup was conducted on Redman Road near Cairo in Alexander County. Approximately 235 tons of waste were loaded and taken to transfer stations in Herrin and Cape Girardeau. Wastes removed from the site included demolition debris, various metal, tires, furniture, glass, plastics, and miscellaneous household wastes. A total of 0.74 tons of metal was loaded and taken to the Cairo Recycling Center.

This cleanup took the cooperation of several different entities. Since the cleanup took place at a railroad crossing, Canadian National Railroad personnel were on hand for the entire cleanup assisting with traffic control and alerting workers when trains were approaching. The Alexander County Highway Department provided flagmen for both sides of the roadway. They also provided trucks and drivers to the landfill and saved the IEPA approximately \$9,700 in transportation expenses. Prisoners from the Tamms Correctional facility helped with the cleanup by doing a lot of the hand work of the cleanup where equipment could not operate.

When the waste was removed, the area was reseeded and mulched. The county highway department also brought in several loads of rock to help reinforce the road shoulder. IRID “No Dumping” Signs were posted on both sides of the crossing. Due to the extra help provided by the entities mentioned, the cleanup was completed in just three days.

New Regulatory Program for Construction and Demolition Debris

Two new laws relating to the regulation of clean construction or demolition debris (CCDD) became law in 2005 and 2006: P.A. 94-272 and P.A. 94-725.

P.A. 94-272 became effective on July 19, 2005, and established a comprehensive new permitting and regulatory program for quarries, mines, or other excavations that accept CCDD for fill. In addition, this law established new government ethics limitations on ownership interests in CCDD fill sites and waste disposal operations, created a new cleanup program to address open dumping, and expanded the Illinois EPA’s authority to issue seals for sites causing environmental and public health risks.

P.A. 94-725 became effective on June 1, 2006, and expanded the Illinois EPA’s authority to deny CCDD fill site permits for prior environmental violations or criminal conduct by prospective owners or operators (or their officers or employees). In addition, this law created a new definition of “owner” and “operator” for CCDD fill operations.

On November 21, 2005, the Illinois EPA proposed to the Pollution Control Board (Board) new rules creating a permit program under P.A. 94-272 for quarries, mines, or other excavations that accept CCDD for fill. The Board accepted the proposal for hearing and assigned it case number PCB R06-19. The Board held two public hearings and issued a Final Opinion and Order adopting the proposed rules on August 17, 2006. The adopted rules were published in 30 Ill. Reg. 14534 (September 8, 2006) and are contained in 35 Ill. Adm. Code 1100.

The rules adopted by the Board contain a detailed description of the technical information that must be contained in an application for a CCDD fill permit under P.A. 94-272. The rules also describe the administrative procedures for obtaining a CCDD fill permit.

New River Edge Program is Latest Brownfields Tool

In 2006, the Legislature approved Governor Blagojevich's River Edge Initiative, the state's newest tool to clean up and redevelop brownfields sites—this one targeted to older communities along rivers. The legislation designated Aurora, East St. Louis and Rockford as the initial pilot project cities. Administered through Illinois EPA and the Illinois Department of Commerce and Economic Opportunity, the River Edge Program provides potential grants up to \$2 million per city, a 25 percent tax credit for unreimbursed cleanup costs in excess of \$100,000, and cleanup related sales tax exemptions within River Edge Development Zones.



"Comes an echo on the breeze."

CLEAN AIR

The Illinois EPA continues to strive toward improved air quality through regulatory efforts and numerous other programs enlisting citizens and organizations to benefit communities, residents, and especially children.

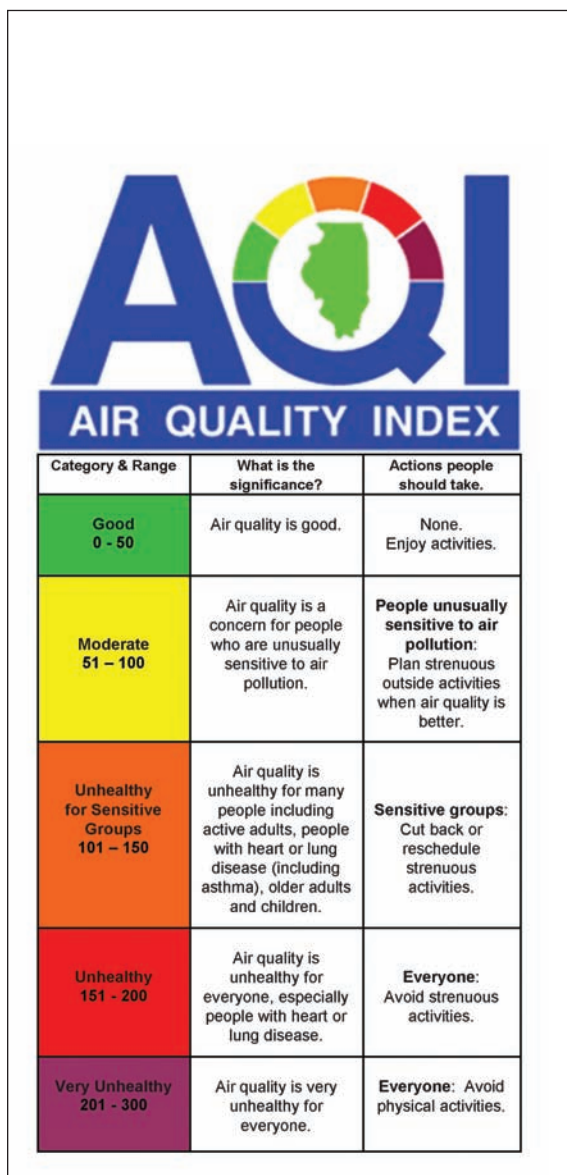
Air quality has been a priority in the State since the formation of the Illinois EPA in 1970. Since that time, the Agency, through its Bureau of Air, has worked to improve the overall air quality by identifying air pollution problems, and working with sources to reduce air pollution, which includes reviewing and issuing permits and inspecting facilities. IEPA also oversees the vehicle emissions testing program in the Metro-East and Chicagoland areas.

Air pollution comes from a number of sources throughout the nation. Pollution can travel from one state to another, or remain stagnant in the location it was emitted. In Illinois, the highest levels of air pollution exist in the state's largest metropolitan areas, Metro-East St. Louis and Chicago. However, those areas continue to experience an on-going trend of decreased pollution.

The Illinois EPA has worked aggressively to target all sources of pollution. For some time, the main target included major sources such as refineries and power plants and other large businesses. While those types of operations continue to be the primary focus and have had regulations tightened over the past several years, additional focus has been placed on individual contributions to air pollution. Individuals contribute to air pollution through everyday activities, especially driving.

In Illinois, vehicles are the single largest source of air pollution. Although newer vehicles run much more efficiently, there are now many more on the road. The IEPA's newest programs are addressing vehicle emissions along with other individual activities to aid in improving the State's air quality. Those programs include:

- The Green Pays on Green Days Program offers Chicago area residents the opportunity to win environmentally friendly products by pledging to take clean air actions.
- The Illinois Clean School Bus Program provides grants to Illinois schools to clean up



their diesel powered school bus fleets, providing a healthier environment for the students and communities.

- Cleaner domestic fuels are becoming increasingly popular among fleet owners and individuals. The Illinois Green Fleets and Alternate Fuel Rebate Programs continue to expand and offer great incentives to those purchasing cleaner vehicles and fuels.
- The vehicle inspection and maintenance program was streamlined to incorporate advanced technology.

Individuals are now more aware of their impact on the environment than ever before. The Illinois EPA will continue to reach out to the general public; however, the principal goal is to meet national ambient air quality standards (NAAQS). Illinois officials continue to work on numerous issues to help achieve this goal, including working directly with industry or, if necessary, challenging federal proposals that may negatively impact Illinois air quality.

A federally mandated vehicle emissions testing program is part of the state's ongoing program for clean air progress in the Chicago and Metro East areas. The testing program results in a reduction of more than 12 percent in the pollutants from cars that contribute to smog in the air. That translates into 26 tons per day of smog-forming volatile organic compounds, the equivalent of the emissions from 650,000 cars or 375 medium-sized factories. In addition, the testing results in an estimated yearly reduction of 260 tons of benzene, which has been linked to cancer.

In a recent report, the American Lung Association identified Chicago as one of 14 cities in the United States where vehicle inspection programs have led to significant gains in air quality. The ALA deemed the Air Team program a "valuable tool for the improvement of air quality," noting that it delivers "meaningful reductions both of air toxics and criteria pollutants that harm both the environment and human health."

Thirty-four states have vehicle-testing programs. In Illinois, the cost of the program is paid for from a portion of state motor fuel taxes and federal grant funds.

Illinois Sees Steady Improvements in Air Quality

The Illinois EPA continually watches air quality throughout Illinois and especially in the state's metropolitan area. A large monitoring network of more than 200 monitors provides data to the Agency that is documented and tracked throughout the year. 2006 was an exceptional year as air quality was either good or moderate 97 percent of the time in Illinois.

The positive numbers experienced in 2006 followed an unusual phase in 2005. For the first time in Illinois, Air Pollution Action Days were called outside of the typical ozone season (May through September), with 3 action days being called in February 2005 due to elevated levels of fine particulate matter (PM_{2.5}). During one of the most unusual air quality episodes in



Illinois EPA operates an extensive air quality monitoring network.

recent history, numerous states in the Midwest and Northeast experienced levels of PM_{2.5} reaching the unhealthy for sensitive groups (orange) or unhealthy (red) levels according to the national Air Quality Index. This unusual episode did provide the Illinois EPA, as well as other states, the opportunity to discuss and explain what fine particulate matter is and how it can impact individuals.

Air quality data for 2005, provided in the 35th Annual Air Quality Report, noted that air quality was either good or moderate 90 percent of the time throughout Illinois. While 2005 data was higher than the data reported in 2004 and 2006 (to be published later this year), overall air quality trends continue to show a steady decrease in air pollution. In addition, air pollution levels remain well below the level of standards on a statewide basis.

The Illinois EPA continues to monitor for a number of pollutants, including the six criteria

pollutants for which air quality standards have been developed. Levels for these pollutants have seen a steady drop from 1997 through 2006 – particulate matter (PM₁₀) 8 percent decrease, ozone 10 percent decrease, sulfur dioxide 36 percent decrease, nitrogen dioxide 6 percent decrease, carbon monoxide 32 percent decrease and lead 30 percent decrease.

While annual trends show the statewide levels well below the federal standards, there are some areas of Illinois that do not meet federal air quality standards for ozone and fine particulate matter. The Agency continues regulatory efforts as well as voluntary programs for businesses and individual citizens to improve air quality and bring the State in compliance with the federal standards.

Landmark Air Emission Reduction Agreements Made Under the Illinois Mercury Rule and Clean Air Interstate Rule

For Illinois, 2006 was an incomparable year for progress in the area of reducing the emissions that contribute to ozone and particulate matter (PM) air pollution, as well as reducing toxic mercury emissions that deposit into and contaminate Illinois waters and fish. Specifically, the Illinois EPA reached landmark environmentally beneficial agreements with the biggest emitters of these pollutants, namely, the three largest coal-fired power plant companies operating in Illinois: Midwest Generation, Ameren and Dynegy. These three companies represent

88 percent of Illinois' 17,007 Megawatt electric generating capacity from coal-fired plants and account for hundreds of thousands of tons of air emissions each year.

The catalyst for these agreements was the announcement in January 2006 from Illinois Governor Rod Blagojevich, which proposed an aggressive mercury pollution control rule focused on cutting mercury emissions by 90 percent from coal-burning power plants by mid 2009. The Illinois EPA presented its findings in support of the rule during two weeks of public hearings that were well attended and hotly contested. Following the hearings, the Agency was approached by Ameren who expressed a desire to work with the Agency toward common goals. Subsequent to long hours of negotiation, an alternative standard was proposed that involved allowing some flexibility in complying with the mercury standards in exchange for commitments to also reduce sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emissions. This initial agreement led to similar discussions and agreements with both Dynegy and Midwest Generation.

The agreements reached and memorialized in the Multi-Pollutant Standard (MPS) and Combined Pollutant Standard (CPS) are significant not only for the magnitude of emissions reductions that occur, but also for the rule support that accompanied the agreements. The Illinois mercury rule was vehemently opposed by a unified coal-fired power industry. The initial agreement established that mutual goals were achievable, set the guiding principles, and

opened the door for other companies to follow –which they did.

Both the Illinois mercury rule and proposed Clean Air Interstate Rule (CAIR) are structured to obtain emission reductions beyond those proposed under the federal model Clean Air Mercury Rule (CAMR) and CAIR. These multi-pollutant reduction agreements are expected to result in dramatic improvement to air quality by reducing mercury, sulfur dioxide and nitrogen oxide emissions. The agreed to measures are a critical milestone in reducing air pollution throughout Illinois and regionally, and one of the most important environmental and public health advances in Illinois history.

Emission Reductions

The combination of the Illinois Mercury Rule, CAIR, and the MPS and CPS contained in these rules will have far reaching positive impacts. Reductions of mercury, SO₂ and NO_x emissions will far exceed those required under the federal CAMR and the CAIR alone.

The reductions agreed to under the MPS and CPS for SO₂ and NO_x are believed to go a long way toward helping Illinois achieve its attainment goals for ozone and PM. Illinois intends to incorporate the agreements into modeling and its attainment demonstration going forward. The final emission reduction numbers are immense. The Illinois EPA estimates the total emission cuts from all three power companies at:

SO₂ = 233,600 tons/yr eliminated

NO_x = 61,434 tons/yr eliminated

Mercury = 7,040 lbs/yr

Under CAMR, coal-fired power producers in Illinois would have only been required to reduce their mercury emissions by 47 percent in 2010 and 78 percent by 2018, not the 90 percent reduction by 2009 required in the Illinois rule. Sources under the MPS and CPS are expected to have mercury emission reductions beyond even the required 90 percent of the Illinois mercury rule after 2015 due to the co-benefit reductions achieved from the installation of new controls needed to comply with the corresponding SO₂ and NO_x standards.

Furthermore, sources will still need to comply with the proposed CAIR, which is believed to result in reductions beyond that required under the federal model CAIR. The additional emission reductions obtained under the proposed CAIR are difficult to quantify. However, to the extent that emissions are further reduced by the proposed policies, the environment will likewise benefit.

Benefits

Regarding mercury, over time Illinois expects to see reductions in mercury water deposition to Illinois' lakes and streams and corresponding methylmercury decreases in Illinois fish tissues, making fish caught in Illinois waters safer to eat. There will be several recognized benefits to the State from tighter mercury controls beyond the expected public health benefits that come

with a reduction in water and fish methylmercury levels. Such benefits include support for existing and the potential for additional jobs resulting from the installation and operating requirements for additional pollution control devices. There also exists a potential for an increase in tourism and recreational fishing as mercury levels drop in fish, bringing an associated positive impact to local economies and the State overall.

The benefits of reducing SO₂ and NO_x are well established in the background and supporting documents associated with CAIR. The U.S. EPA cost-benefit analysis done for CAIR demonstrated substantial net economic benefits to society from the emissions reductions required under CAIR. The U.S. EPA estimates that by 2015 the benefits of the CAIR are \$83.2 to \$98.5 billion while the costs are \$3.6 billion.

Furthermore, U.S. EPA estimates that in 2015 the PM-related annual benefits include approximately 17,000 fewer premature fatalities, 8,700 fewer cases of chronic bronchitis, 22,000 fewer non-fatal heart attacks, 10,500 fewer hospitalization admissions (for respiratory and cardiovascular disease combined) and result in significant reductions in days of restricted activity due to respiratory illness (with an estimate of 9.9 million fewer minor restricted activity days) and approximately 1,700,000 fewer work loss days. Moreover, U.S. EPA forecasts substantial health improvements for children from reduced upper and lower respiratory illness, acute bronchitis, and asthma attacks.

Ozone health-related benefits are expected to occur during the summer ozone season. Based upon modeling for 2015, annual ozone-related health benefits are expected to include 2,800 fewer hospital admissions for respiratory illnesses, 280 fewer emergency room admissions for asthma, 690,000 fewer days with restricted activity levels, and 510,000 fewer days where children are absent from school due to illnesses. In addition to these significant health benefits, CAIR will result in ecological and welfare benefits. These benefits include visibility improvements; reductions in acidification in lakes, streams, and forests; reduced nutrient replenishing in water bodies; and benefits from reduced ozone levels for forests and agricultural production. These benefits are expected to increase to the extent emissions are reduced beyond the levels that would have occurred absent the agreements and Illinois NOx policy under CAIR.

Improving Chicago's Air Quality One Action at a Time

September 2006 was a memorable time for Mary Bonnstetter of Chicago. She was presented the keys to a 2006 Toyota Prius by Illinois EPA Director Doug Scott, Chicago's NBC-5 Meteorologist Brant Miller and Clean Air Superhero, Breathe Easy Man as her name was drawn as the Grand Prize winner of Green Pays on Green Days 2006.

Mrs. Bonnstetter was one of 45 Grand Prize finalists in the Green Pays on Green Days 2006 Program. Each year, the program runs from

June through early September, the primary months of the summer air pollution season. Finalist names were drawn each day the Chicago area's air quality was forecasted to be good or "Green" according to the national Air Quality Index. Three additional finalists were



Mary Bonnstetter of Chicago was the winner of a new Toyota Prius electronic hybrid car in the 2006 Green Pays on Green Days drawing.

chosen at the end of each month during the contest. All 45 winners were chosen randomly and those in attendance for the Grand Prize drawing had a chance to win the new Toyota Prius donated by Your Chicagoland Toyota Dealers.

Green Pays on Green Days was first launched in the Summer of 2002. Since the beginning, the Illinois Environmental Protection Agency and the Partners for Clean Air have joined forces to implement the program. The program is a public education effort that encourages Chicagoland residents to join the fight against air pollution by pledging to do "just one thing" for cleaner air.

"Green Pays on Green Days is a great way to educate individuals in the Chicago area about the impact we all have on air quality," said Director Scott. "Many people don't realize what a difference small changes in daily behavior can make."

To achieve the greatest air quality benefits, Green Pays on Green Days targets individuals in areas that do not meet national ambient air quality standards. The contest is open each summer to residents in Cook, DuPage, Grundy, Kane, Kendall, Lake, McHenry and Will counties in Illinois who commit to take one or more "green actions" to reduce air pollution. 2006 was a remarkable year receiving nearly 26,000 pledges from area residents, more than double the pledges submitted in 2005.

In addition to rewarding one resident with a new Toyota Prius, several Chicago area businesses were also presented with Partners for Clean Air Excellence Awards for their efforts to reduce air pollution in the region. Awards were presented to Lincoln Park Zoo, Swedish Covenant Hospital, the Regional Transportation Authority (RTA) and the City of Aurora.

The Chicago area Partners for Clean Air coalition, headed 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 the unhealthy levels. Green Pays on Green Days is

supported by financial and product contributions from numerous Illinois businesses and organizations.

Mobile Source Programs: Grants, Rebates and More

Illinois EPA continues to enhance existing programs and promote new initiatives for clean vehicles and fuels, and reducing emissions into the air from conventional vehicles. These programs include the Illinois Clean School Bus Program, Illinois Alternate Fuels Rebate Program, Illinois Green Fleets Program, and the Illinois Green Fuels Program.

Illinois Clean School Bus Program

The Illinois Clean School Bus Program has grown to 73 school districts in 33 counties participating to retrofit their school buses and use cleaner fuels. Over \$3 million has been distrib-



Effingham School district students and officials joined IEPA Director Doug Scott (right) for announcement of a Clean School Bus grant in 2006.

uted affecting 2,740 school buses to be equipped with oxidation catalysts, particulate filters, and idling equipment, along with using biodiesel fuel. The Illinois EPA utilizes federal grants and supplemental environmental projects to fund applications received from school districts.

Illinois Alternate Fuels Rebate Program

The Illinois Alternate Fuels Rebate Program continues to expand. In 2006, nearly \$200,000 in rebates were issued to 175 applicants for using E-85 and biodiesel fuels (20 percent biodiesel blend). To date, over 400 applicants have received more than \$2.7 million in rebates for acquiring clean, alternate fuels and alternate fuel vehicles. Illinois now has over an estimated 20,000 vehicles using E-85, biodiesel, natural gas, and propane.

The Illinois EPA has been promoting E-85 and biodiesel fuels, as well as the types of vehicles that can use E-85, to the general public. Illinois now has 145 retail stations selling E-85 located throughout the state. In addition, retail stations are selling biodiesel blends, mostly 11 percent blends (B11), with a few selling 20 percent blends (B20). Over a hundred fuel stations in Illinois sell biodiesel fuel.

Illinois Green Fleets Program

The Illinois Green Fleets Program now has 80 designated “green fleets” throughout the state. Our green fleets have nearly 10,000 clean, alter-

nate fuel vehicles, driving vehicles that run on fuels such as natural gas, propane, ethanol (E-85), biodiesel (B20), electricity, hybrid-electric, and hydrogen.

For more information and application materials on the Illinois Clean School Bus, Alternate Fuel Rebate, and Illinois Green Fleets programs, to learn which school districts have received funds to clean up their school buses, which fleets are



IEPA's Green Fleets program is one of several efforts by the Agency and the State of Illinois to encourage the use of corn-based E-85 ethanol.

“green fleets” and using alternate fuels, and where you can find stations that sell E-85 and biodiesel, go to our website at www.illinoisgreenfleets.org.

Idling Campaign

The Illinois EPA has developed materials to educate school districts, local governments, trucking companies, and other companies with larger diesel vehicles on the benefits of not

idling their trucks and buses when it is not necessary. Prevalent practices are still in place when diesel engines are left running while the vehicle is parked and unattended. The idling materials developed by the agency make a significant business and environmental case for turning off the engines when not in use. With today's high prices of diesel fuel, many companies have taken notice and have found alternatives to idling their trucks and buses. For more information on idling, go to www.illinoisgreenfleets.org.

Ethanol Production Workshops held in 2006

Illinois EPA teamed up with the Illinois Corn Growers Association, the Illinois Departments of Commerce and Economic Opportunity, and Agriculture and other groups to sponsor "Building an Ethanol Plant in Illinois" workshops in January 2006 in Bloomington and in May 2006 in Edwardsville.

The well-attended workshops were intended to help potential plant developers navigate through the pollution control permit process and learn how to develop a plant with best management practices such as waste reduction and energy efficiency and pollution prevention designs to plants producing an environmentally-friendly fuel that will be environmentally friendly to their neighbors as well.

Experts spoke on such issues as siting a plant, construction permits, grants and funding oppor-

tunities, financing and use of different fuel sources.

Interest in both production and use of ethanol fuels is booming, particularly in Illinois. Currently only Iowa has more ethanol plants than Illinois but that may change with all of the proposed new plants in Illinois. Illinois already leads all of the states in E-85 ethanol fuel consumption, with the number of retail outlets just in the past year increasing from about 15 to more than 100.

Also spurring new plants are the federal Renewable Fuels Standard enacted last year that is expected to double national ethanol production and use by 2012 by requiring that a percentage of all fuels sold be derived from renewable resources.

The January workshop was held at the headquarters of the Illinois Corn Growers Association in Bloomington and the May workshop was held at the National Corn-to-Ethanol Research Center on the campus of Southern Illinois University at Edwardsville. The latter workshop was followed by a tour of the research facility.

In 2006, Illinois had seven operating ethanol production facilities that have received air pollution control permits from Illinois EPA, with a total capacity of more than 700 million gallons per year. The Agency issued or reissued air permits in 2005 and 2006 for five proposed new plants with a total capacity of nearly 200 million gallons per year.

IEPA's Bureau of Air permit staff was reviewing permit applications for 11 additional proposed new ethanol plants in 2006. If all these plants are built according to plan, it would provide more than 900 million gallons in additional annual production capacity.

A guide, "Building an Ethanol Plant in Illinois Regulatory Guidance" was also created by the state agencies and distributed to workshop participants and is also available for downloading from the Illinois EPA's web site at www.epa.state.il.us/agriculture/building-an-ethanol-plant.

The workshops and guidebook are further examples of state government's strong commitment to renewable fuels, and as a result, Illinois continues to be a national leader in the production, availability and research on E-85.

EMERGENCY OPERATIONS UNIT

In 2005 and 2006, Illinois EPA's Emergency Operations Unit (EOU) staff handled 1707 and 1637 incidents respectively. In 2005, 57 incidents prompted an evacuation of 1,100 people, 12 of which involved 16 fatalities and 82 incidents resulting in 188 injuries. The releases in the majority of incidents – 1487 – were caused by a leak or a spill, while 49 were a fire or explosion, 129 a gas or vapor cloud, and 66 had water contamination.



Vehicle accidents may result in release of hazardous materials into soils and drainage.

Examples of major Situations

Petroleum Pipeline Release

In June 2006, more than 140,000 gallons of gasoline were released from the Buckeye Pipeline Terminal east of Harristown (Macon County). Valves were reportedly opened at a loading rack, allowing gasoline to flow into a pipe that had not been properly capped and taken out-of-service. The spilled gasoline pooled in the containment area around several storage tanks at the Terminal, seeped into the ground, contaminating the groundwater, and then moved through drainage tiles to a tributary of the Sangamon River.

Train Derailments

During the period, several train derailments, Thanksgiving Day, 2005 – Union Pacific and Norfolk Southern freight trains collision in

Momence (Kankakee County); June 2006 – CSX railroad near Troy (Madison County); and December 2006 – Union Pacific railroad near Christopher (Franklin County), provoked evacuations and EOU oversight of the extensive response to environmental and public health issues.

Facility Fires

In June 2006, a fire at the GDB International / NOTTS paint warehouse in Nashville (Washington County) resulted in IL Route 127 closure and contaminated runoff entering Middle Creek that required containment and recovery operations to minimize environmental impacts. Runoff also impacted a private pond where extensive monitoring was conducted.

In October 2006, a fire at the Reliable Plating Plant in Chicago resulted in massive amounts of contaminated fire water discharged to the Metropolitan Water Reclamation District (MWRD) of Greater Chicago sewer, diverted to the TARP tunnel system and ultimately to the MWRD's West South West treatment facility. Streets and sidewalks around the buildings and a nearby park were cordoned off. During the response, EOU coordinated cleanup work with Chicago Department of the Environment and U.S. EPA Region 5 personnel and the Illinois Attorney General's Office.

In November 2006, an early morning fire at the Heritage Farm Service facility near Piper City (Ford County) destroyed the agricultural chemical storage and maintenance building. The fire

resulted in an evacuation of several neighboring residences and prompted an extensive site investigation and remediation.

Maritime Incident

In January 2005, a large explosion and barge fire occurred on the Cal-Sag canal in Chicago. Up to 546,000 gallons of clarified slurry oil were on the barge and an unknown amount spilled into the canal, along with diesel fuel and heat transfer oil. One barge worker was killed in the explosion that was attributed to a boiler malfunction while it was being lit. Illinois EPA coordinated with several federal and local agencies including the U.S. Coast Guard, Chicago Emergency Management Agency, Chicago Police and Fire Departments, Metropolitan Water Reclamation District of Greater Chicago, and personnel from the U. S. Department of Homeland Security - Transportation Security Administration.

Spills of National Significance (SONS) 2007 Exercise

Exercises help insure the readiness of response agencies, federal, state and local, to natural or man-made events with simulated events to enhance the realism of the play. During 2005 – 2006, Illinois EPA staff participated in planning the nation's first inland Spills of National Significance (SONS) Exercise slated for June 19 – 20, 2007.

The SONS 2007 Exercise is a multi-faceted, full deployment exercise that involves a part-

nership of federal agencies, multiple states, municipalities, industries and volunteer organizations to assess response coordination and as it pertains to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) in alignment with the National Response Plan (NRP).

The premise is focused response to oil and hazardous substance releases triggered by catastrophic natural events – tornado damage at the Great Lakes Naval Base and an earthquake along the New Madrid Seismic Zone (NMSZ) within the Mississippi River Valley.

IEPA LABS PROVIDE KEY ANALYTICAL CAPACITY:

Facilities in Champaign and Springfield analyze several thousand samples yearly.

The Illinois EPA Division of Laboratories has been analyzing environmental samples since the 1970s and analytical and reporting procedures have evolved so that simazine analysis of lake, river and sediment samples could be easily done when that herbicide was detected in some drinking water samples in central Illinois in 2006. This resulted in better monitoring of the soil and water to determine decreases of the simazine levels in the environment.

Two of the significant accomplishments at the Illinois EPA Division of Laboratories in 2005-2006 were expanded use of the Springfield and Champaign Laboratories LIMS (laboratory

information management system) and the installation of a discrete chemical analyzer in the Springfield Laboratory.

The LIMS computer system is used to track a sample entry into the laboratory, recording the date of collection, location of sample site, which analyses are requested, and the Agency Bureau for whom work is being done. The LIMS system issues a lab sample identification number, and uses that number to track sample data, and issue the sample report. The LIMS continues to become more useful to the Agency and is now used by the Bureau of Water drink-



IEPA labs analyze thousands of samples each year.

ing water compliance group to allow them to track if needed samples have been received by the laboratory and their current stage of analysis. Sample collection for drinking water must adhere to a tight schedule, and web access to the laboratory allows timely information about quickly changing water quality. Historical

tracking of sampling points allows one to see all the data from an individual sample point over several years and on an as-needed basis without going through lab personnel.

A second major accomplishment of the Division of Laboratories was the installation of a discrete chemical analyzer, so that some categories of sample analysis can be done more quickly with fewer analytical instruments. A discrete analyzer allows the same instrument to be used for the analysis of several different chemical methods but requires that only one analyzer be purchased. The current instrument is used for phosphorus, total kjedahl nitrogen, and nitrate/nitrite, some of the nutrients routinely used in Illinois for agricultural production. The information about their concentrations helps monitor the level of cleanliness of Illinois lakes and streams.

The Springfield Organic Laboratory analyzed 23,000 samples in 2005 and 35,000 samples in 2006, looking for organic contaminants, such as pesticides, herbicides, PCBs (polychlorinated biphenyls), MTBE (methyl-tert-butyl-ether), benzene and other volatile solvents, and a wide variety of other organic industrial chemicals. The sources of the samples ranged from drinking water, to fish, to soil, rivers, lakes, and drums of unknown materials.

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

Penalties Finance Benefits; Information Made More Accessible.

The Illinois EPA's Division of Legal Counsel works with other Agency staff to carry out Governor Blagojevich's commitment to enforcing state and federal laws protecting the environment.

The Agency works with the Attorney General's Office to seek appropriate remedies and penalties to correct environmental or public health hazards and make sure companies do not receive an unfair benefit from violating the law.

The Illinois EPA implemented a uniform Enforcement Management System (EMS) in August 2003. The EMS gives all Agency employees involved in compliance and enforcement a structured approach to moving violations through the process either to resolution or formal enforcement. Since the approach is consistent across all programs, the deadlines are easier to track, the decision-making is improved and actions are timelier. Consistency and timeliness improve the fairness to the regulated community as a whole, and increases the deterrent value of the action taken. This also enhances the complementary tools of compli-

ance assistance and formal enforcement. The maintenance of a fair but credible enforcement threat will improve the level of voluntary compliance.

Enforcement Outreach

Illinois EPA in December 2003 became one of the first state environmental agencies to make the full texts of enforcement orders readily available for review and downloading on the Agency's web site. IEPA was commended by



the national Environmental Integrity Project for leadership among the states in making enforcement information more accessible. In addition, citizens and organizations are invited to submit funding project ideas on-line to the "SEP (Supplemental Environmental Project) Bank" for consideration for funding as part of resolution of environmental enforcement cases.

In 2005, 207 enforcement orders resulted in \$5,050,309 in penalties and another \$5,814,280 in Supplemental Environmental Projects (SEPs). In 2006, there were 189 enforcement orders resulting in \$6,554,787 in penalties and SEPs worth \$1,203,676.

SEPs range from agreements to install additional pollution control equipment at facilities to environmental protection and conservation projects benefiting local communities. For example, in the 2005-2006 period, one SEP helped finance the dredging and shoreline restoration of Leclaire Lake, the centerpiece of a more than century old historic neighborhood in Edwardsville. The lake had almost completely silted up as a result of years of erosion. It is now once again a source of fishing and other recreation for the community and other Illinois EPA programs have assisted in streambank controls to prevent recurrent erosion. In Robbins, a SEP is helping pay for demolition of more than 20 abandoned derelict residential structures that had posed environmental and safety and crime hazards.

Some examples of enforcement cases resolved in 2005-2006 include:

— Exxon Mobil Corporation, with a \$650,000 penalty and a SEP valued at more than \$2.4 million that included a broad range of emissions reduction controls at the company's Joliet refinery, a more than \$1 million prairie habitat restoration, and the \$75,000 grant to Edwardsville and \$200,000 grant to Robbins.

— ConocoPhillips Company reached a settlement that included a \$200,000 penalty and a SEP valued at \$900,000 that included programs to reduce air emissions and take various other corrective actions involving its Hartford refinery.

— Intermatic, an electrical products manufacturing facility in Spring Grove, entered an agreement to pay \$30,957 in penalties and a SEP valued at \$230,600 to replace a degreaser unit and significantly reduce air emissions.

— Vulcan Inc. agreed to a civil penalty of \$1 million and to contribute \$49,100 to the Iroquois-Kankakee Regional Office of Education for retrofitting school buses with emission control devices, as well as an additional \$900,000 to the Bradley School District for purchase of clean fuel for its school buses.

— A consent order entered into by Premcor involving leaking underground storage tanks at 51 gas station sites in Illinois included a penalty of \$500,000 and a SEP, that entailed a commitment to a cleanup schedule for tanks, valued at \$562,343.

— Phillipe Construction, a developer of a residential subdivision in Steger agreed to a \$10,000 penalty and a SEP of \$140,000 paid to the Corporation for Open Lands for potential restoration and sediment removal at the lake located in the development.



The Illinois Statehouse where laws are made

New Illinois Environmental Laws Enacted in 2005-2006

Besides the landmark “right to know” legislation described earlier in this report, and the legislation creating the Illinois Removes Illegal Dumps (IRID) program also described in this report, the Illinois General Assembly passed and Governor Blagojevich signed several other significant environmental laws in 2005 and 2006.

They included:

House Bill 931-Public Act 94-62: The law

makes several changes to the Alternate Fuels Act, with a primary objective of promoting increased usage of 20 percent or higher blends of biodiesel fuel by making those blends, which can be used in vehicles without special retrofitting, eligible for rebates from IEPA through the Alternate Fuels Rebate Program and the Department of Commerce and Economic Opportunity’s (DCEO) Alternate Fuels Infrastructure Grant Program. Previously, only 80 percent or more biodiesel blends were eligible.

House Bill 112-Public Act 94-346: Another part of Governor Blagojevich’s multi-faceted effort to encourage the use of this environmentally-friendly fuel typically made from soybeans grown by Illinois farmers, it required that beginning July 1, 2006, diesel-powered fleet vehicles owned or operated by the State, any county or local unit of government, any state college or university, any school district, or any mass transit agency to use no less than 2 percent biodiesel fuel. It required the Illinois Department of Transportation to adopt rules for implementing the provision. It exempts vehicles designed or retrofitted to run on higher percentage grade of biodiesel or those designed or retrofitted to run on ultra low sulfur fuel.

Senate Bill 1787-Public Act 94-274: This new law expands the definition of an “owner” of an underground storage tank to also include any person who voluntarily elects (in writing to the Illinois EPA) to enter the Agency’s leaking

underground storage tank (LUST) cleanup program and who has acquired a property on which one or more registered underground storage tanks have been removed, but on which the cleanup was never completed and a “No Further Remediation” (NFR) letter was never issued by the Agency.

Senate Bill 2040-Public Act 94-276: This law clarifies that a “No Further Remediation” (NFR) letter issued to a property owner by the Illinois EPA following an Agency-approved cleanup of a leaking underground storage tank (LUST) site also applies to any adjoining property owner to the extent that the final, approved cleanup also covered the adjoining property. It clarifies that an NFR letter would not apply to off-site contamination that has not been cleaned up due to an adjoining property owner’s denial of access to his property to conduct or complete the cleanup.

House Bill 4067-Public Act 94-467: This bill creates the Children’s Environmental Health Office Act. Subject to specific appropriation for this purpose, it requires the Illinois Department of Public Health (IDPH) to create and maintain the Children’s Environmental Health Office within its Office of Health Protection. It sets forth duties of the Children’s Environmental Health Officer and requires the Children’s Environmental Health Officer to report annually to the Governor and the General Assembly regarding his or her activities.

House Bill 1149-Public Act 94-518: This law creates the Computer Equipment Disposal and Recycling Commission and requires the Commission to: 1) issue a report of its findings and recommendations related to the disposal and recycling of computer equipment on or before May 31, 2006; 2) beginning on May 31, 2007, evaluate the implementation of programs by the State relating to computer equipment disposal and recycling; and 3) issue a report of its finding and recommendations on or before December 31, 2008. It also requires the Commission seek input and consult with business and trade organizations and associations, solid waste agencies, and environmental organizations with expertise in computer equipment disposal and recycling.

Senate Bill 397-Public Act 94-526: This law makes changes in the state’s Vehicle Emissions Inspection Program. Starting February 1, 2007, it will eliminate the dynamometer (“treadmill”) based testing entirely that is now in effect for vehicles older than 1996 and require emissions testing within the same current geographical areas for model years 1996 and newer vehicles only, using On Board Diagnostics (readouts from the car’s computer). It also allows IEPA to contract with one or more vendors supplying testing services for a period of an additional five years beyond the previous 2007 cutoff.

House Bill 5578 (Public Act 94-732) that became effective April 24, 2006, created the Mercury Switch Removal Act requiring automakers to establish a program to remove

and collect mercury switches from discarded vehicles before they are processed as scrap metal. The law establishes a series of phased-in targets for the switch removal and collection, starting with 35 percent by July 2007, 50 percent by July 2008, and 75 percent by July 2009. It also provides for vehicle recyclers and scrap metal dealers to receive \$2 for each mercury light switch removed. It also requires automakers to develop training materials, provide collection containers, arrange for safe disposal and conduct educational outreach to implement the program. The chief sponsors were Rep. Karen May, D-Highland Park and Sen. Terry Link, D-Lake Bluff.

It was among several initiatives supported by Governor Blagojevich targeting mercury, which can cause permanent brain damage and other developmental and nervous system health problems.

The use of auto scrap to make steel is the second largest source of mercury emissions in Illinois.

The Legislature also approved Governor Blagojevich’s River Edge Redevelopment Zone Act (***Senate Bill 17 or Public Act 94-1021***), which became effective July 12, 2006.

The legislation provides additional tools and resources to communities on rivers including potential new grants of up to \$2 million, subject to appropriation, and a 25 percent tax credit for unreimbursed cleanup costs in excess of \$100,000 per site. It designated Aurora and East

St. Louis as the initial pilot communities eligible for River Edge Redevelopment Zones. A trailer bill, *Senate Bill 1892 (Public Act 1022)* added Rockford as a third pilot city.

On June 9, 2006, Governor Blagojevich signed into law *House Bill 4782 (Public Act 94-845)*, effective July 1, that prohibits diesel vehicles of more than 8,000 pounds from idling their engines for more than 10 minutes during any 60-minute period, within the state's two largest metropolitan areas (Chicagoland area—Cook, DuPage, Lake, Kane, McHenry, Will counties and Aux Sable and Good Lake Townships in Grundy County and Oswego Township in Kendall County, as well as Madison, St. Clair and Monroe counties in the St. Louis/Metro East area. The new law provides for a petty offense for the first violation, with a fine of \$50, and \$150 for a second or subsequent offense within any 12-month period. It provides exemptions when the outdoor air is below 32 degrees or above 80 degrees.

The legislation was strongly supported by several environmental and public health groups. It also complements the Governor's Clean School Bus program administered by IEPA, which has developed a video, pamphlets and workshops to reduce pollutants from unnecessary idling by diesel school buses throughout the state.

Prompted by previously unreported releases of water contaminated by radioactive tritium from three nuclear power plants, Governor Blagojevich also signed a law on June 11, 2006.

House Bill 1620 (Public Act 94-849) that requires the owner or operator of any nuclear power plant to report any unpermitted release of any radionuclide into the groundwater, surface water, or soil to the IEPA and the Illinois Emergency Management Agency (IEMA) within 24 hours of the release. It also authorizes and requires the IEPA and IEMA to inspect each of the state's nuclear power plants no less than quarterly each year.

A portion of the Vehicle Emissions Inspection law was modified by Senate Bill *2878 (Public Act 94-848)* that was signed and took effect on June 9, 2006. It provides for the Secretary of State to not renew the vehicle registration, rather than the previous provision for suspending driving privileges, of any vehicle owner who fails to comply with emissions testing requirements after several notices. It would preclude a driver from being arrested for a suspended drivers license for failure to comply with emissions testing. It was sponsored by Rep. Mike Tryon (R-Crystal Lake) and Sen. Martin Sandoval (D-Chicago) who said the enforcement of emissions testing should be aimed at the vehicle rather than the driver.



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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
Environmental Justice Officer
Illinois Environmental Protection Agency
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