

Members

Sen. Beverly Gard, Chairperson
Sen. James Buck
Sen. Frank Mrvan
Sen. Karen Tallian
Rep. David Wolkins
Rep. James Baird
Rep. Ryan Dvorak
Rep. Matt Pierce
Doug Meyer
Dave Wyeth
Dwayne Burke
John Hardwick
Art Umble
Calvin Davidson
Thomas Easterly
Heather Hill



ENVIRONMENTAL QUALITY SERVICE COUNCIL

Legislative Services Agency
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Indianapolis, Indiana 46204-2789
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Ruth Rivera, Attorney for the Council
Jessica Harmon, Fiscal Analyst for the Council

Authority: IC 13-13-7

MEETING MINUTES¹

Meeting Date: August 4, 2011
Meeting Time: 1:00 P.M.
Meeting Place: State House, 200 W. Washington
St., Senate Chambers
Meeting City: Indianapolis, Indiana
Meeting Number: 1

Members Present: Sen. Beverly Gard, Chairperson; Rep. James Baird; Rep. Matt Pierce; Doug Meyer; Dave Wyeth; Dwayne Burke; John Hardwick; Calvin Davidson; Thomas Easterly.

Members Absent: Sen. James Buck; Sen. Frank Mrvan; Sen. Karen Tallian; Rep. David Wolkins; Rep. Ryan Dvorak; Art Umble; Heather Hill.

1. **Call to Order:** Sen. Gard called the meeting to order at 1:06 p.m.

2. **Administrative Matters:** Sen. Gard welcomed everyone to the meeting. The Council members introduced themselves, and Sen. Gard introduced the Legislative Services Agency staff.

3. **Commissioner's Report:** The Commissioner of the Indiana Department of Environmental Management (IDEM), Thomas Easterly, was recognized to speak. Commissioner Easterly's presentation (Exhibit 1) was supported by the following:

¹ These minutes, exhibits, and other materials referenced in the minutes can be viewed electronically at <http://www.in.gov/legislative>. Hard copies can be obtained in the Legislative Information Center in Room 230 of the State House in Indianapolis, Indiana. Requests for hard copies may be mailed to the Legislative Information Center, Legislative Services Agency, West Washington Street, Indianapolis, IN 46204-2789. A fee of \$0.15 per page and mailing costs will be charged for hard copies.

- 25th Anniversary State of the Environment Report (Exhibit 2)
- Enforceable Operating Agreement Program Report (Exhibit 3)
- 2010 Annual Pollution Prevention Report (Exhibit 4)
- 2010 Household Hazardous Waste Program Annual Report (Exhibit 5)
- Hazardous Substance Response Trust Fund Report (Exhibit 6)
- Administratively Extended NPDES Permits (Exhibit 7)
- FY 2011 Legislative Report on CFO/CAFO Activities (Exhibit 8)
- IN Waste Tire Management Grant Program Report FY 2011 (Exhibit 9)
- IN Recycling Market Development Program Report FY 2011 (Exhibit 10)
- Mercury Switches in End of Life Vehicles Activities (Exhibit 11)

Commissioner Easterly then presented information regarding IDEM's program expenditures and related revenues (Exhibit 12). Commissioner Easterly:

- Informed the Council about IDEM program costs and associated revenues.
- Discussed the declining revenues in the Hazardous Substance Response Trust Fund.
- Informed the Council that most program fees have not changed for more than 16 years.
- Discussed the IDEM programs that have costs exceeding program revenue, including the NPDES Program, the Drinking Water Program, the Solid Waste Program, the Hazardous Waste Program, and the CAFO/CFO Program.
- Discussed staffing changes and increased program workload at IDEM.
- Discussed issues concerning the funding of environmental programs, including the funding of activities not originally anticipated when funds were established.

In response to questions from Council members, Commissioner Easterly:

- Discussed potential impacts if the EPA determines that coal combustion waste (CCW) is hazardous waste.
- Advised that increases in EPA regulations should not negatively impact IDEM's staff in performing core agency functions.
- Informed the Council that his staff will research which IDEM dedicated funding sources were transferred to the state General Fund for FY 2010.

4. **Future Meetings:** Sen. Gard outlined the topics that the Council will address in the interim, including Solid Waste Management Districts, air emissions issues concerning the distillation of mint, and the supply and quality of water in the Great Lakes. Sen. Gard instructed the Council members to inform her concerning any other issues they would like to discuss in the interim.

5. **Adjournment:** Sen. Gard adjourned the meeting at 3:00 p.m.

Exhibit 1 - EQSC, Aug. 4, 2011

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



Environmental Quality Service Council IDEM Report – August 4, 2011

Thomas W. Easterly, P.E., DEE, QEP
Commissioner, Indiana Department of
Environmental Management



Presentation Outline

- IDEM 2011 Legislative Agenda and Results
- 25 Years of Progress
- Comparison of Region V States by U.S. EPA
- IDEM 2011 EQSC Report
- 2011 Goals and Challenges
- Air Quality and Asthma Trends



2011 IDEM Legislative Agenda

- IDEM Issuance of NPDES General Permits SB 200.
- Authorization to pursue delegation for U.S. ACE 404 and U.S. EPA UIC programs SB 433.
- Define duties and funding for SWMDs EQSC.
- EQSC study of funding for environmental programs SB 433.
- IDEM general bill that passed Senate last year SB 433.



25 Years of Progress

http://www.in.gov/idem/files/state_of_environment_2011.pdf

25 years

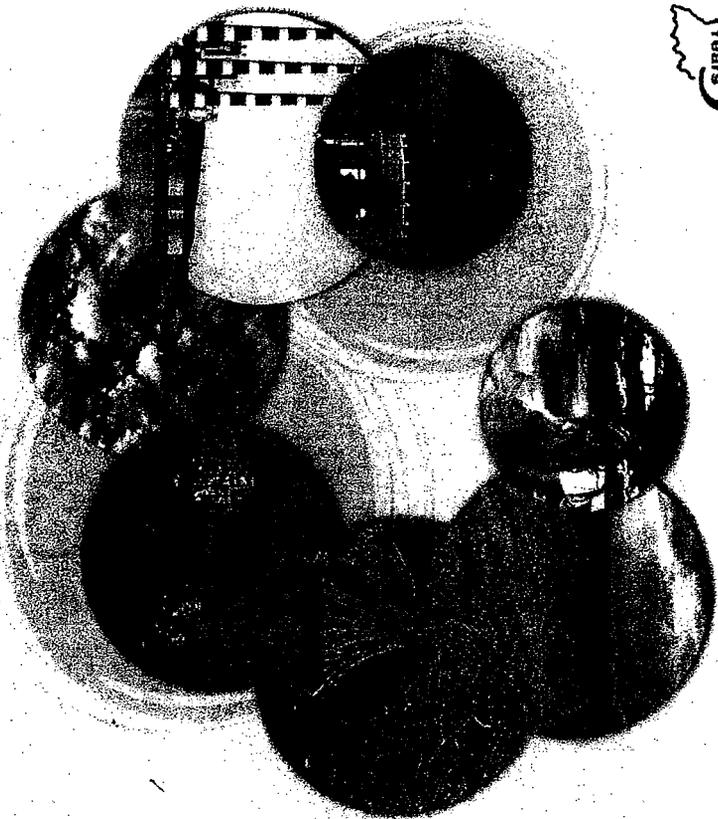
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM
25
YEARS



Indiana Department of Environmental Management

Air Land Water Pollution Prevention



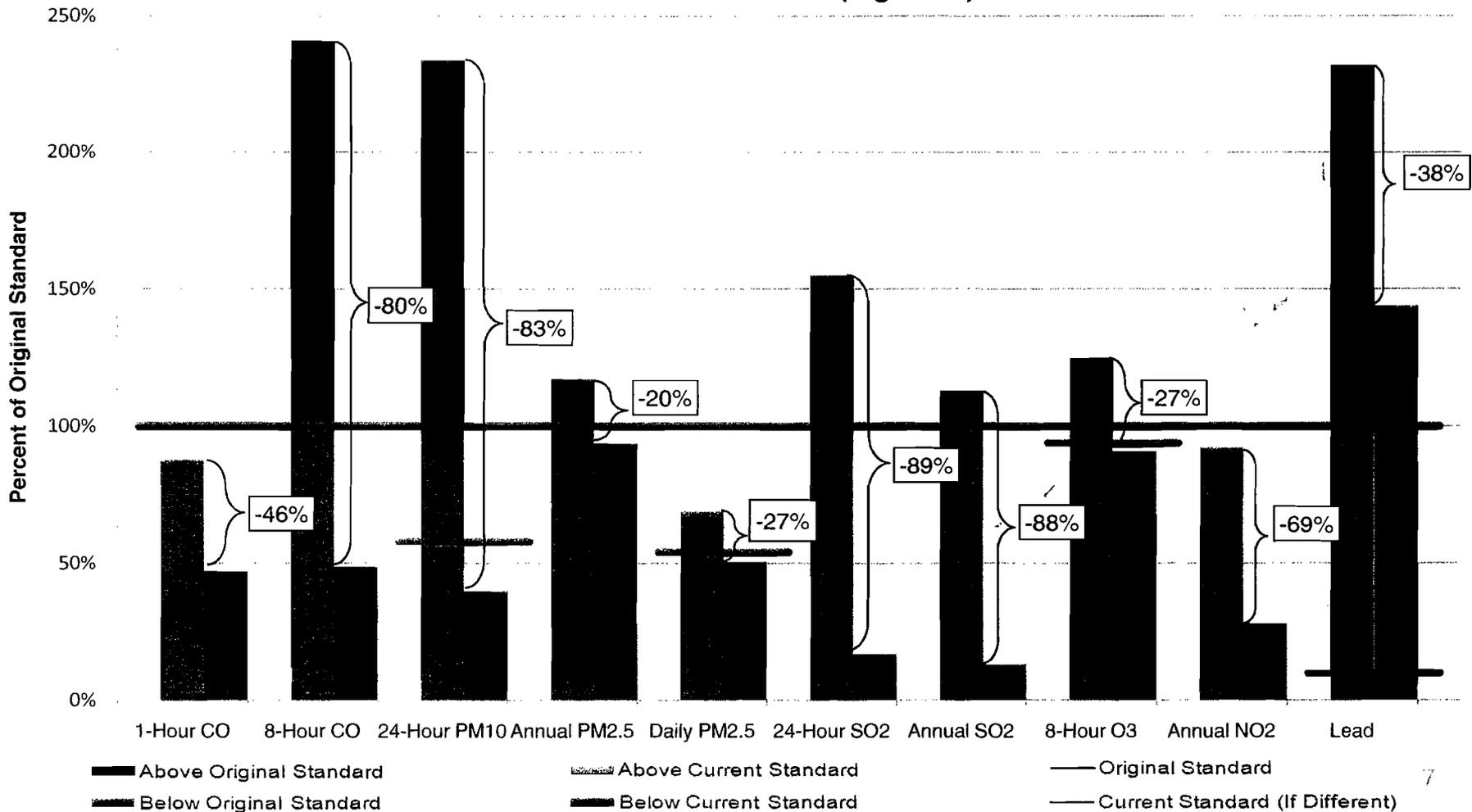
**25th Anniversary
State of the Environment 2011**



25 Years of Progress

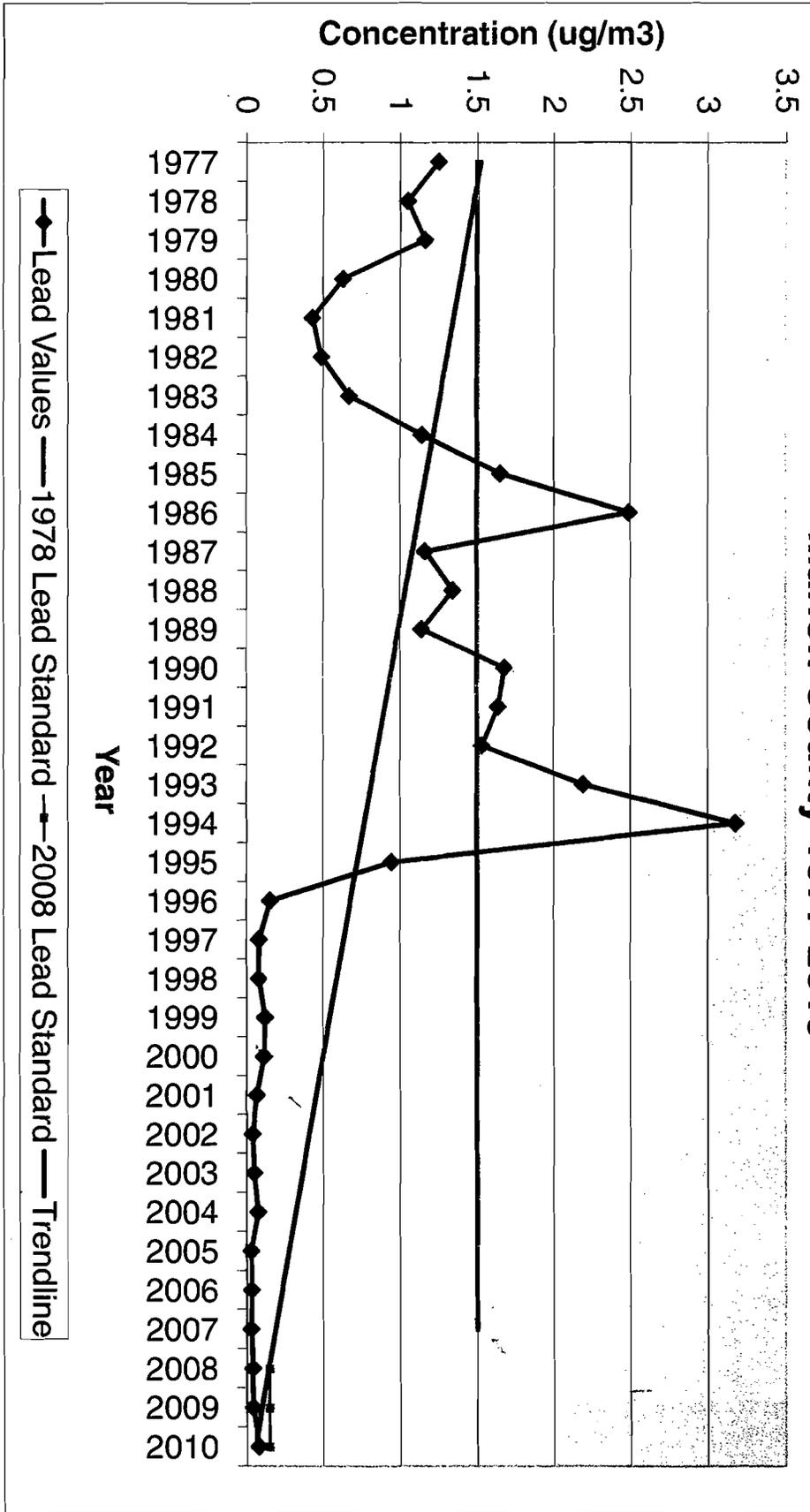
- At the end of 2009, for the first time since ambient air quality standards were developed, all of Indiana met all of the health based ambient air quality standards (including the 0.075 ozone standard).
- During 2010, the new 0.15 microgram per cubic meter lead standard became effective and almost 700 people may be breathing air above that new standard. IDEM is working to make sure that those Hoosiers have clean air to breathe.
- Outdoor Hydronic Heater (formerly Outdoor Wood Fired Boiler) Rule effective May 18, 2011.
- Automotive mercury switch removal program.

Percent Difference Between Highest Historical Monitored Concentration (Left Bar) and Highest Most Current Monitored Concentration (Right Bar) - Statewide





Lead Maximum Values Marion County 1977-2010





25 Years of Progress

- **Water Quality Improvements:**

- IDEM has assessed the water quality in 83% of Indiana's waters to identify areas in need of improvement.
- IDEM has used the 319 grant process to fund watershed improvement projects over the past five years that have prevented annual discharges of:
 - 500,508,000 pounds of sediment
 - 546,871 pounds of nitrogen
 - 332,270 pounds of phosphorus



25 Years of Progress

- **Water Quality Improvements:**

IDEM has documented the water quality improvements from these program efforts and removed the watersheds listed on the next page from the list of impaired waters.



25 Years of Progress

- **Water Quality Improvements:**

- **Big Walnut Creek**

http://www.in.gov/idem/nps/files/watershed_success_epa_bigwalnut.pdf

- **Clifty Creek**

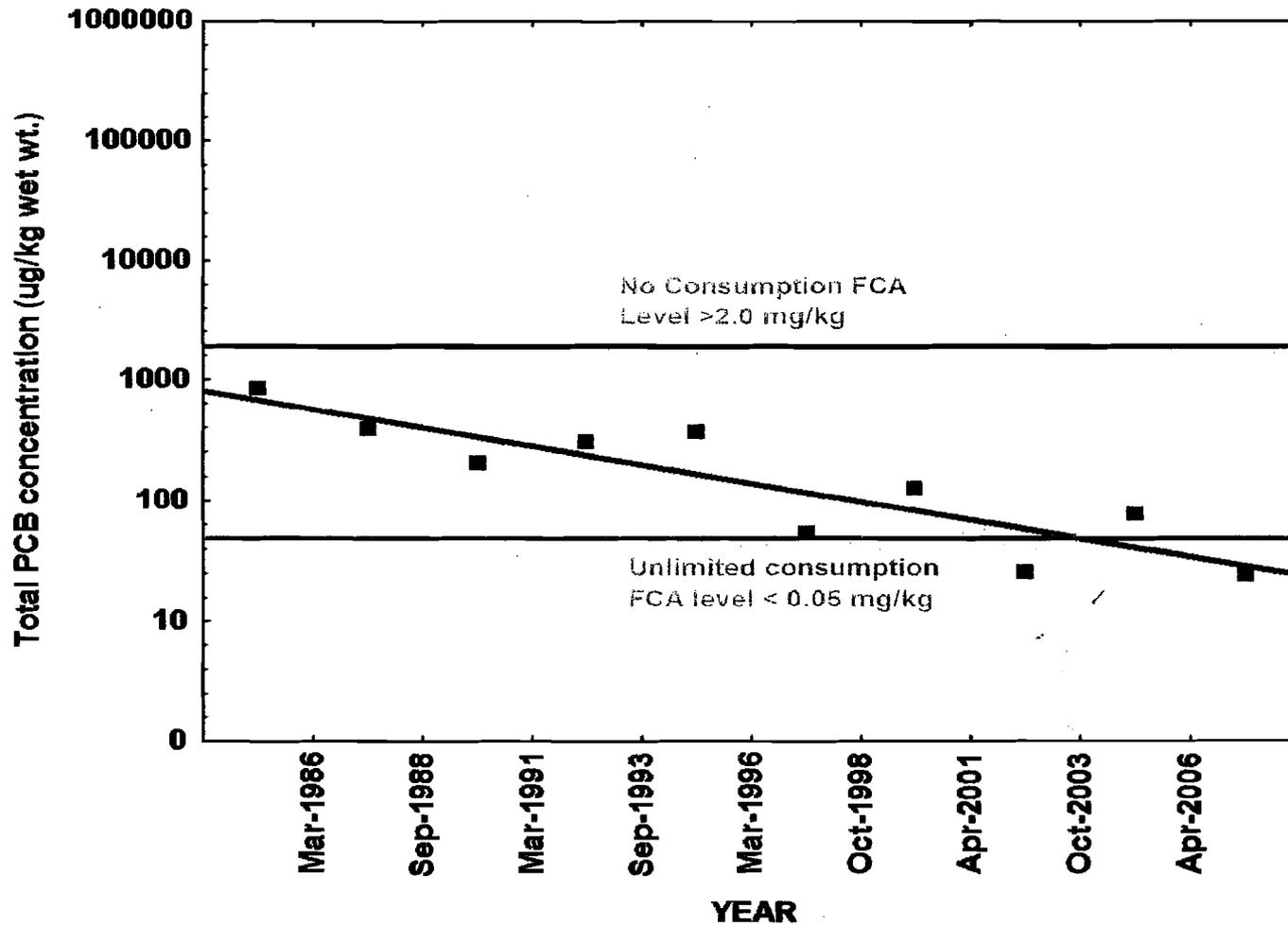
http://www.in.gov/idem/nps/files/watershed_success_epa_clifty.pdf

- **Pigeon Creek**

http://www.in.gov/idem/nps/files/watershed_success_epa_pigeon.pdf



Trend of Total PCB in Indiana Fish 1983-2008



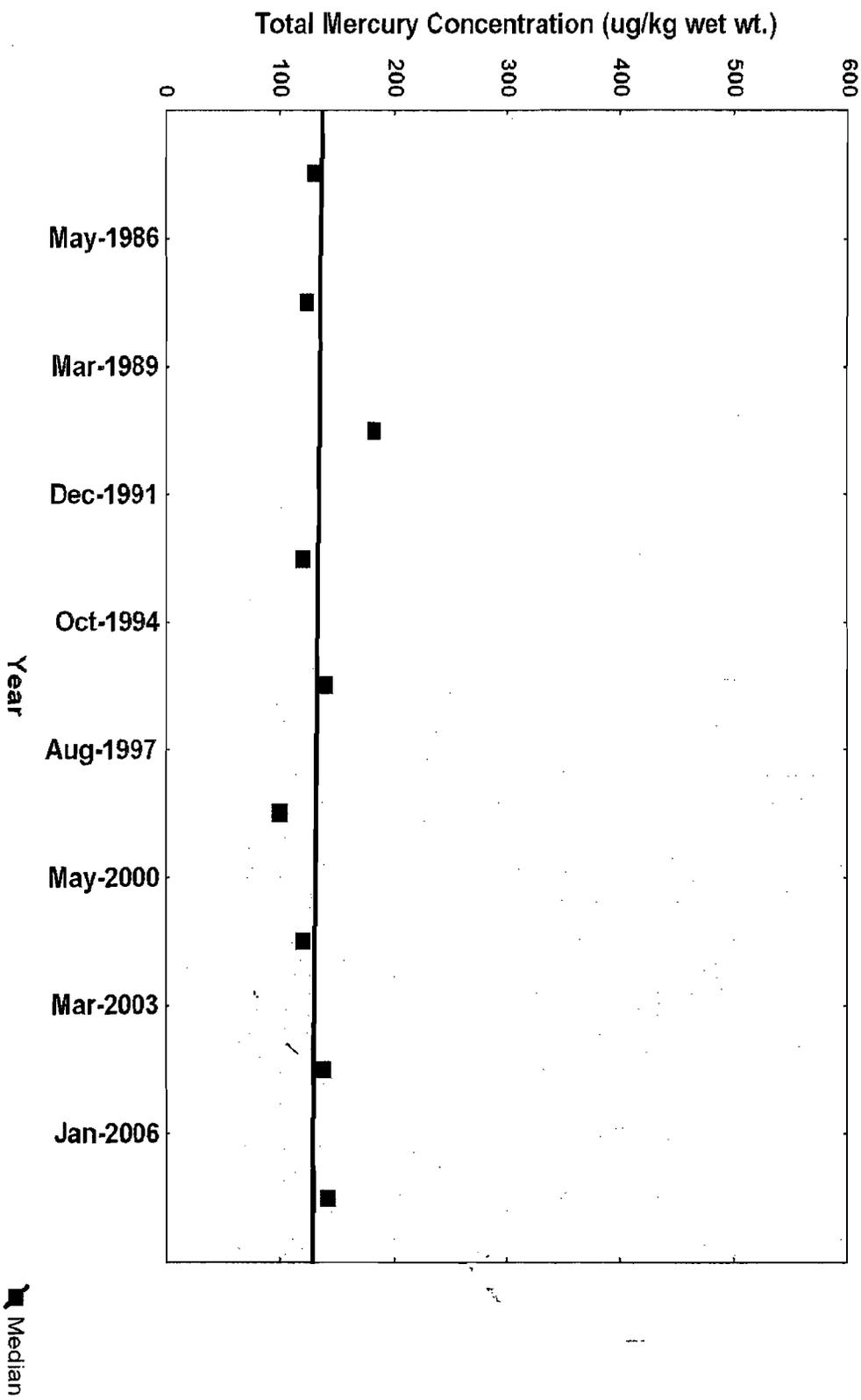
Median

25 years

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



Trend of total mercury concentrations in Indiana fish since 1983



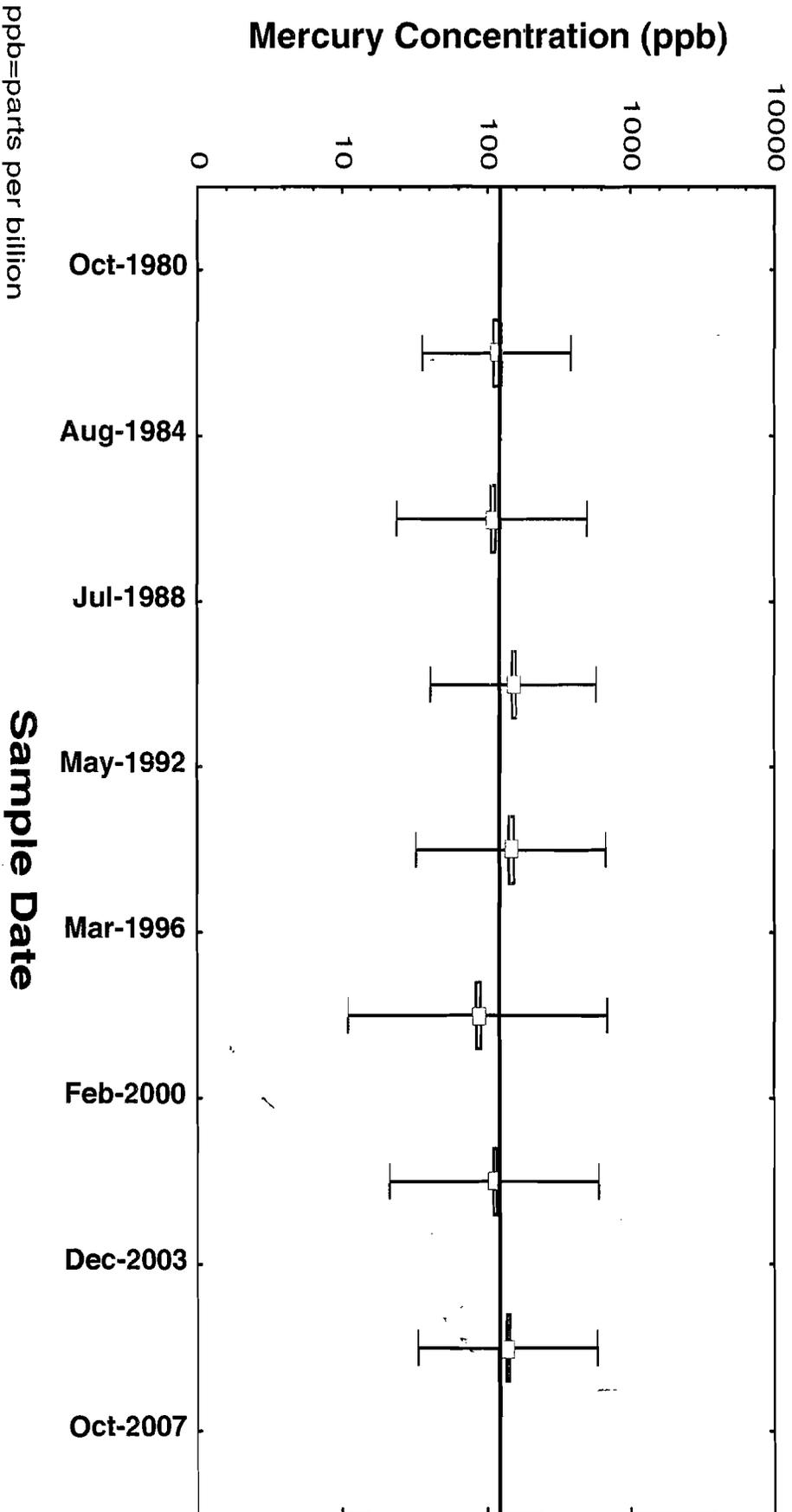
■ Median

25 years

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



Mercury Concentration in Indiana Fish 1983 - 2006





25 Years of Progress

- **Cleanup of Contaminated Sites:**
 - Indiana has a fully funded Excess Liability Trust Fund to pay for petroleum clean ups from currently operated tanks.
 - Indiana has issued an updated RISC Closure Guidance Document and is reviewing public comments.
 - Exposure to hazardous constituents is under control at 58 of Indiana's 66 RCRA Corrective Action sites, while ground water contamination is under control at 55 of those 66 sites.

A stylized graphic of the number '25' in a large, elegant script font, with the word 'years' written in a smaller, cursive font to its right. The graphic is set against a circular, textured background.

25 Years of Progress

- **Cleanup of Contaminated Sites:**
 - Since 2005, Indiana has cleaned up more than 50,810,000 pounds of illegally dumped waste tires.
 - All 1,269 tons of VX Agent stored at the Newport Chemical Agent Facility since 1969 has been safely destroyed. VX destruction started in May of 2005 and was completed in August 2008.

A stylized graphic of the number '25' in a cursive font, with the word 'years' written in a smaller, simpler font to its right. The entire graphic is set against a circular, textured background.

25 Years of Progress

- **Electronic Permits and Reporting**

- Virtual File Cabinet—electronic filing system with over 62,000,000 pages now online, about 433 boxes of old documents not yet in the system.
- TEMPO—Enterprise wide electronic integration of all IDEM information—part of the infrastructure to receive and process electronic permit applications and reports—scheduled to be fully operational in 2012.
- Digital Inspector—Still being rolled out.

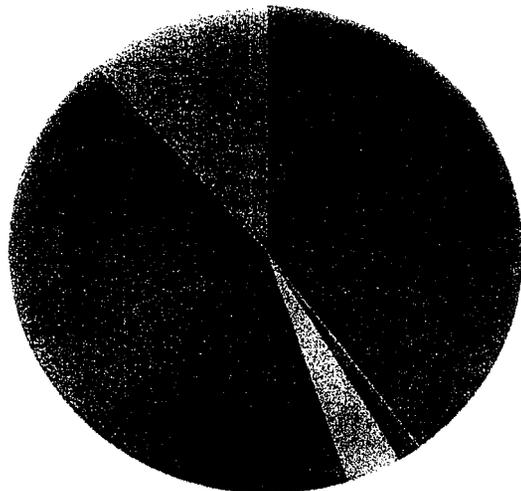


**Comparison of Region 5 States
Permitting Program Status
compiled by U.S. EPA Region 5 for
March 10, 2011 State
Environmental Directors Meeting**



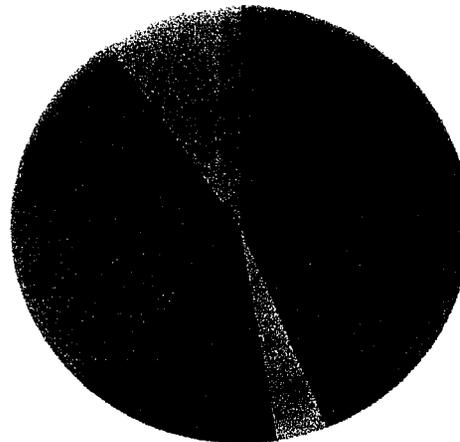
Region 5 Title V Renewal Permit Backlog

Backlog as of
January 1, 2011



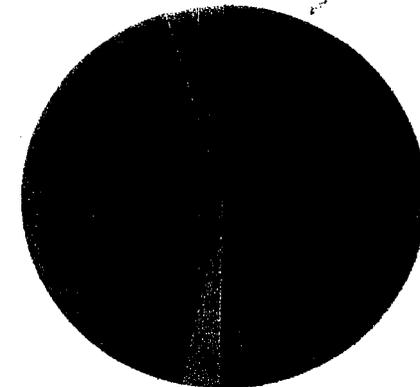
(573)	(650)	(385)
■ Illinois 422	■ Indiana 16	■ Michigan 37
■ Minnesota 151	■ Ohio 312	■ Wisconsin 122
(295)	(597)	(467)

End of Calendar
Year 2011



■ Illinois 416	■ Indiana 0
■ Michigan 34	■ Minnesota 141
■ Ohio 267	■ Wisconsin 92

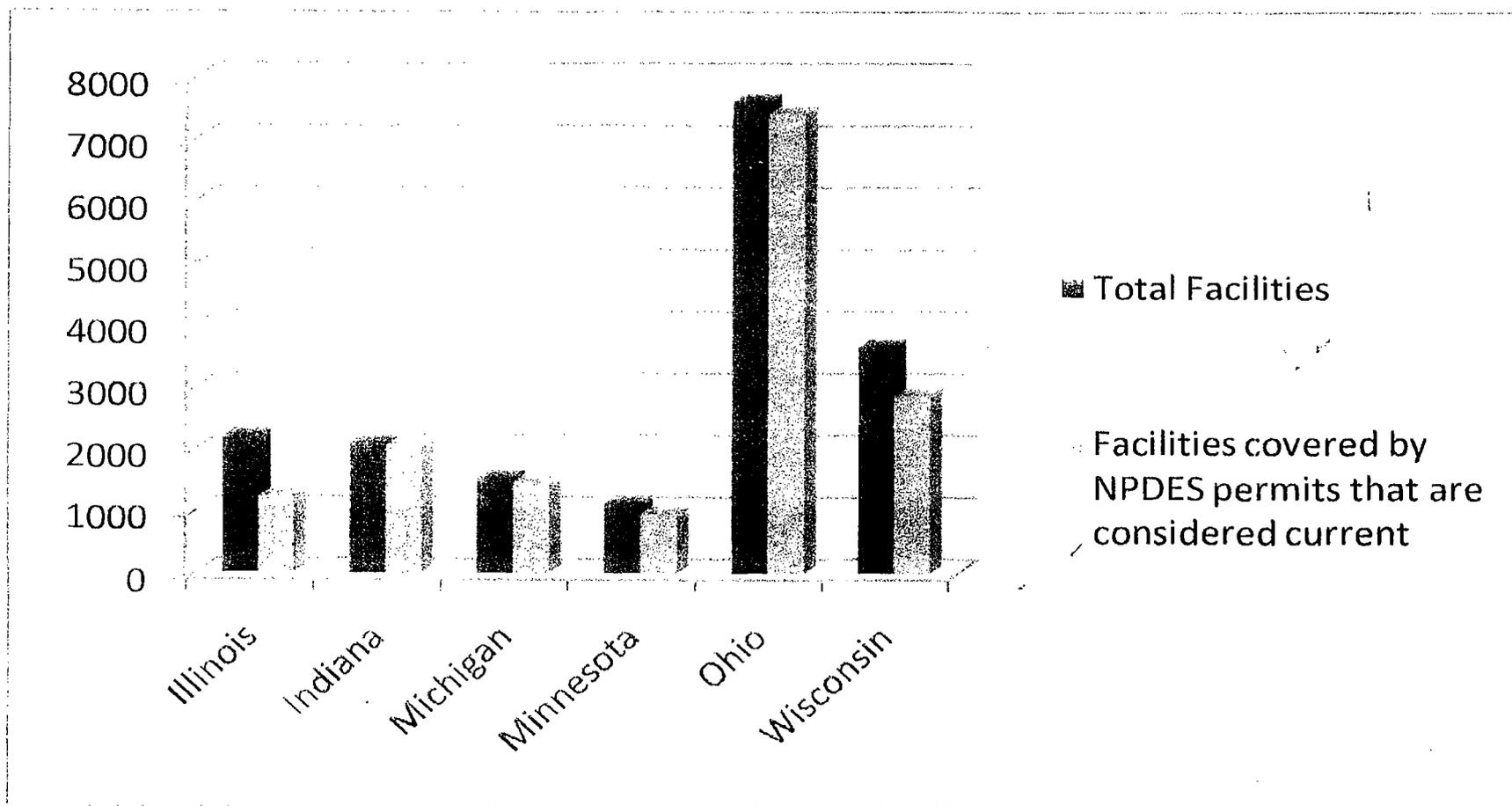
End of Calendar
Year 2012



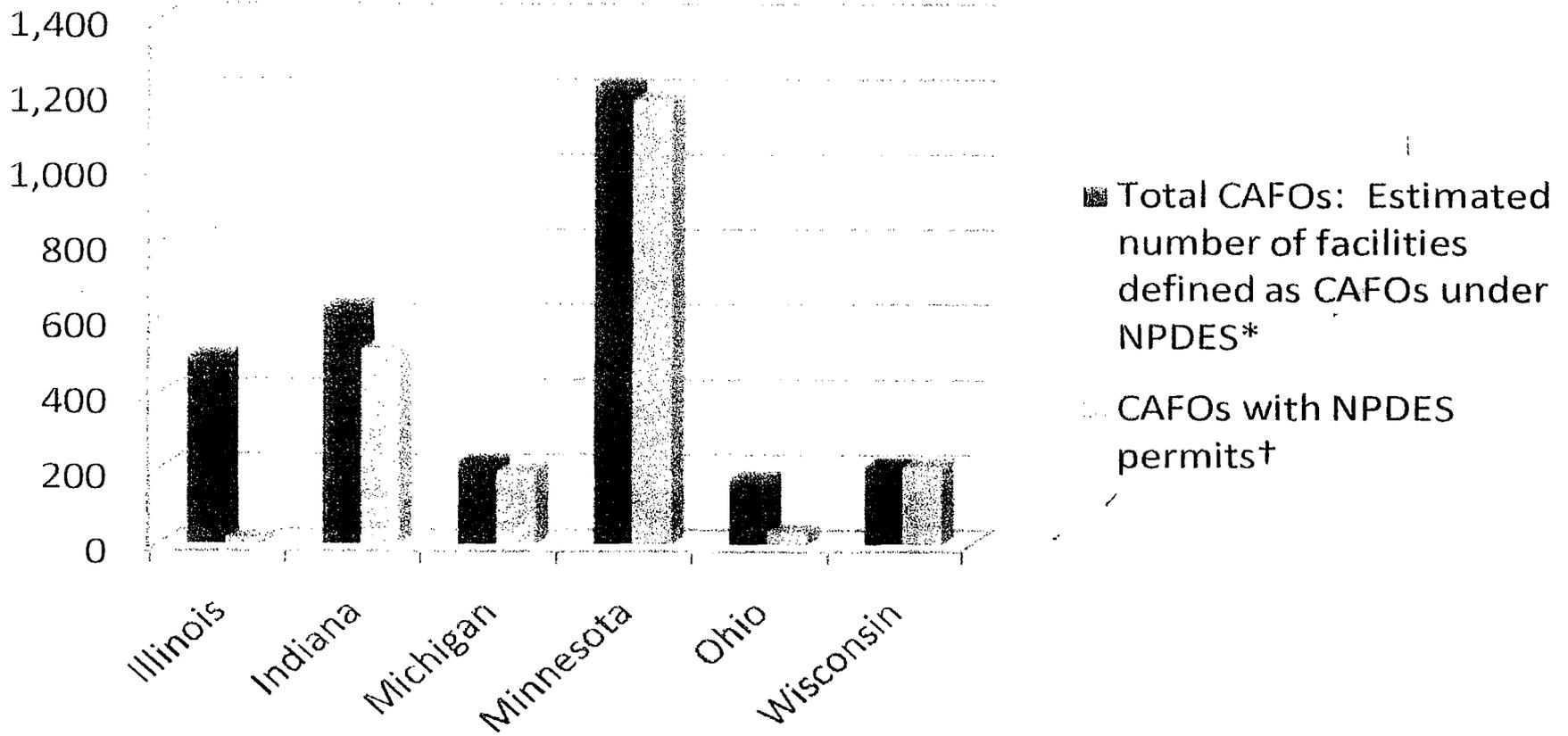
■ Illinois 398	■ Indiana 0
■ Michigan 24	■ Minnesota 126
■ Ohio 207	■ Wisconsin 37

(Total Number of Title V Permits)

Status of Facilities Covered by Current Permits (as of 12/31/10)



Status of State CAFO Universe with Permits (as of 3/2/11)





IDEM EQSC Annual Report 2011



IDEM's Mission

We Protect Hoosiers and Our Environment

IDEM's mission is to implement federal and state regulations to protect human health and the environment while allowing the environmentally sound operations of industrial, agricultural, commercial and government activities vital to a prosperous economy.



How Does IDEM Protect Hoosiers and Our Environment?

- Develop regulations and issue permits to restrict discharges to the environment to safe levels.
- Inspect and monitor permitted facilities to ensure compliance with the permits.

25 years

Protect Hoosiers and Our Environment



How Does IDEM Protect Hoosiers and Our Environment?

- Use compliance assistance and/or enforcement when people exceed their permit levels or violate regulations.
- Educate people on their environmental responsibilities.



Performance Metrics July 2011

	Result	Target	Comments
Quality of Hoosiers' Environment			
% of Hoosiers that live in counties that meet air quality standards	99.99%	80%	Lead in a small portion of Muncie
% of CSO Communities with approved programs to prevent the release of untreated sewage	95.4%	20%	94+9 (103) out of 99+9 (108)
% of Hoosiers that receive water from facilities in full compliance with safe drinking water standards	98.46%	95%	

Permitting Efficiency

Total calendar days accumulated in issuing environmental permits, as determined by state statute

Land		86,864
Air		385,000
Water	56,716	200,000

* Places emphasis on back logged permits

Compliance

Total percentage of compliance observations from regulated customers within acceptable compliance standards

Inspections		75%
Self reporting	98.23%	95%
Continuous monitoring (COM)	99.77%	99.0%

* Tracks observations and not just inspections



Performance Metrics June 2005

Quality of Hoosiers' Environment

% of Hoosiers in counties meeting air quality standards

Result

Target

Comments

	80%
	20%

12 counties & 2,408,571 of 6,195,643 above standard

% of CSO Communities with approved programs to prevent the release of untreated sewage

75% by 2007 is goal

Permitting Efficiency Total calendar days accumulated in issuing environmental permits, as determined by state statute

Land

	86,864
	385,000
	200,000

Air

Water

* Places emphasis on back logged permits

Compliance Total percentage of compliance observations from regulated customers within acceptable compliance standards

Inspections

95.46%		75%
97.11%		95%
99.19%		98.95%

Self reporting

Continuous monitoring (COM)

* Tracks observations and not just inspections

Organizational Transformation Budgetary agency dollars spent on **key** outside contracts for core agency functions.

Dollars spent on outside services per year

	\$3,447,017
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Office of Water Quality Accomplishments

- **NPDES Permit Backlog Reduction**
 - 2005: 263 Administratively Extended Permits
 - 2011: 22 Administratively Extended Permits
 - Oldest Recently Issued Includes:
 - US Steel Midwest. Issued 1/31/2011
 - ArcelorMittal Burns Harbor. Issued 2/7/2011
 - Hoosier Merom. Issued 12/22/2010.
 - Oldest Remaining:
 - ArcelorMittal Indiana Harbor East.
 - ArcelorMittal Indiana Harbor West.



Office of Water Quality Accomplishments

- **NPDES Permit Backlog Reduction (cont.)**
 - Of the 20 remaining administratively extended Permits:
 - 13 do not meet EPA's definition of administratively extended as they are less than 180 days past the expiration date.
 - 11 have been public noticed and are close to being issued.
 - 8 submitted their renewal application late.



Office of Water Quality Accomplishments

- **Combined Sewer Overflow Reductions**
 - 108 Communities with Combined Sewers.
 - 93 Communities have IDEM –approved LTCPs.
 - 15 Communities remain to have their LTCPs approved. Of those, 10 are in an enforceable mechanism to get their LTCPs developed and implemented and 5 are in negotiations with EPA and IDEM for the development and implementation of their LTCPs.
 - 27 Communities have completed the implementation of CSO controls.

A stylized logo for 25 years, with the number '25' in a large, decorative font and the word 'years' in a smaller, cursive font to its right.

Office of Water Quality Accomplishments

- **Antidegradation Rule**

- Federal Requirement that allows point source discharges to waters under specific circumstances.
- Indiana law defines how we make the allowances and rules address the implementation of the law.



Office of Water Quality Accomplishments

- Antidegradation (Cont.)
 - The current rule applies only to the Great Lakes Basin.
 - The proposed rule will apply state-wide and:
 - Increases public opportunities for input,
 - Protects swimmable/fishable uses of waters,
 - Allows for the issuance of legal permits for discharges to waters, and
 - Does not allow for the violation of water quality standards.



Office of Water Quality Accomplishments

- **Antidegradation (Cont.)**
 - Legislative changes mandated by House Enrolled Act 1162 have been incorporated.
 - Stakeholder work groups held over two years.
 - Four public meetings held around the state.
 - Rule 'Second Noticed' in Indiana Register.
 - Many comments received.



Office of Water Quality Accomplishments

- **Antidegradation (Cont.)**
 - IDEM streamlined and revised the rule.
 - IDEM met with major stakeholder groups to explain changes.
 - Draft rule presented to Water Pollution Control Board for preliminary adoption July 27th—decision continued to September 19th meeting.
 - Rule will be ‘Third Noticed’ in Indiana Register.
 - EPA must approve the final rule and currently is satisfied with IDEM’s proposed rule.



Office of Water Quality Accomplishments

- **Blue Green Algae Initiative**
 - Increasing Public Awareness.
 - Concerns from citizens around Geist Reservoir in 2007.
 - Senator Gard urged agencies to investigate.
 - Partnership among ISDH, IDNR, IUPUI Center for Earth and the Environmental Science to collect and report information.



Office of Water Quality Accomplishments

- **Blue-Green Algae Initiative (Cont.)**
 - 2009 EQSC report recommended expanded sampling of lakes.
 - State Blue-Green Algae Initiative:
 - IDEM has built in-house capacity to analyze the algae.
 - IDEM sampled **five** DNR managed lakes in the first year.
 - IDEM expanded sampling to **11** DNR managed lakes this year.
 - ISDH/IDEM developed a communication protocol featuring:
 - Updated website
 - ISDH hotline
 - ISDH press releases when necessary.



Office of Water Quality Accomplishments

- **Blue-Green Algae Initiative (Cont.)**
 - Long term goals:
 - Evaluate the costs and resources necessary for dramatically expanded sampling.
 - Use the information as an indicator to help provide information to the public and protect Hoosiers and the Environment.
 - Collect information that will help assess water quality.
 - Incorporation of cyanobacteria and microcystin into IDEM's Water Quality Monitoring Strategy.
 - Strengthen state agency partnerships.



Office of Air Quality

Goal: Continue to Improve Air Quality

As Federal air quality standards are tightened, ongoing assessment and planning are necessary:

1. Each episode of elevated concentrations is analyzed for cause and contribution.
2. Rulemaking is focused on pollutants of concern and supported by technical analysis.
3. Emission reduction initiatives and voluntary actions are promoted via internal and external partners (OPPTA, Partners for Clean Air, etc.)



Office of Air Quality (Regulatory Actions Summary)

State and federal actions targeting continued air quality improvement:

1. Cross-State Air Pollution Rule (Clean Air Interstate Rule replacement). Finalized by U.S. EPA July 2011.
2. Consumer and Commercial Products (Indiana-2010).
3. Architectural, Industrial and Maintenance Coatings(Indiana-2010).
4. Outdoor Hydronic Heaters (Indiana-2011).
5. Maximum Achievable Control Technology (MACT) for industrial, commercial, and institutional boilers. Finalized by U.S. EPA February 2011.
6. Maximum Achievable Control Technology (MACT) for electric utilities. Proposed by U.S. EPA March 2011.



Office of Air Quality (Rulemaking Initiatives 2011-2012)

IDEM Rules Website: <http://www.in.gov/idem/4087.htm>

• *Users may subscribe to receive information about rules, permits, and other public notices.*

Key Air Rulemakings in Progress:

1. Cross-State Air Pollution Rule.
2. Boiler and utility MACTs.
3. Redesignations for Fine Particles
4. Article 2 Initiative and related rulemakings (Permitting Rules).
 - External public work group.
 - Objectives are to enhance clarity and increase efficiency of permitting process.



Office of Air Quality Recent Accomplishments (Measured Air Quality)

1. Ambient air quality continues to improve for all pollutants that there are standards in place for.
 - IDEM is working with Exide to bring an isolated portion of Delaware County into compliance with the new lead standard.
 - U.S. EPA established a new 1-hour standard for sulfur dioxide that will be a challenge for a number of Indiana counties.
 - This standard relies on modeling more so than monitoring.



Office of Air Quality Recent Accomplishments (Measured Air Quality)

- National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter are scheduled to be revised.

- 2. U.S. EPA is proceeding to approve Indiana's redesignation petitions under the annual standard for fine particles now that the Cross-State Air Pollution Rule is in place.



Office of Air Quality Recent Accomplishments (Compliance and Enforcement)

Clean Air Interstate Rule (CAIR)

- Processed CAIR Energy Efficiency/Renewable Energy (EE/RE) Results for the 2010 Ozone Season and the 2010 Annual Control Period.
- Redistributed leftover CAIR EE/RE allowances, leftover Hardship allowances and leftover New Non Electric Generating Units (EGUs) Allowances for the 2010 Ozone Season and 2010 Annual Control Period, to the EGUs.



Office of Air Quality Recent Accomplishments (Compliance and Enforcement)

- Processed CAIR allowance applications for New EGUs for the 2011 Ozone Season and 2011 Annual Control Period.

Cross-State Air Pollution Rule (CSAPR)

- CAIR will be implemented through 2011 compliance periods – CAIR then replaced by CSAPR.
- CSAPR establishes new allowances for all programs – There is no carryover of the Acid Rain Program, NO_x SIP Call/NO_x Budget Program, or CAIR Allowances.



Office of Air Quality Recent Accomplishments (Compliance and Enforcement)

Compliance Assistance Program at Permitted Sources

- Offered to all first time or renewal Title V, FESOP, or MSOP permittees along with significant source modifications.
- Air inspector travels to source and explains permit requirements, what to look for, how to help manage the permit requirements, and what to expect during an IDEM inspection.
- Focus is to increase compliance at permitted sources.



Office of Air Quality Recent Accomplishments (Compliance and Enforcement)

Compliance Assistance Program at Permitted Sources—Continued

- 746 letters sent offering program in last 3 years.
- 84 of the sources took advantage of the program plus an additional 33 that were aware of the program.
- Sources that took advantage of the program have a 6% better compliance rate.



Office of Air Quality Recent Accomplishments (Compliance and Enforcement)

Expedited Enforcement Pilot Project

- Quick resolution of straight forward violations that merit small civil penalty (\$500)
- 27 cases used expedited enforcement (approximately 19% of all enforcement cases)
- Reduced average time to resolve a case by 80 days (approximately 33% reduction)
- OAQ considering other types of violations suitable for Expedited Enforcement



Office of Air Quality Recent Accomplishments (Air Permitting)

- Reduced backlog from 157 permits on 1/1/08 to 1 remaining on 7/1/11, which is on hold at the request of the applicant.
- The air permit workload increased from 280 pending permits on 6/30/10 to 394 permits pending on 7/1/11.
- Permit processing efficiency increased during the same period. In 2011 permits are issued in 92% of the allowable calendar days compared to 95% in 2010.
- Efficiency measurement today is based on calendar days in process, not permit days.



Office of Air Quality Mint Farms

- Currently there are 11 Mint Farms across Northern Indiana.
- The farms produce a concentrated mint oil extract by steam distillation and subsequent separation of mint oil from the mint plant itself.
- No emission factor exists to determine Volatile Organic Compound (VOC) emissions for air permit applicability.
- House Enrolled Act No. 1451 required that a study be conducted of the actual and potential air emissions from the distillation of mint.



Office of Air Quality Mint Farms

- In May 2011, IDEM awarded a contract to test VOC emissions at the Lawrence Farm.
- The test was conducted on July 27, 2011.
- Preliminary test results indicate that there are some VOC emissions from mint distilling, we expect final quality assured test results in August.



Office of Air Quality GHG Air Permits

- All permits issued after 6/30/2011 that increase GHG emissions by 75,000 tpy need GHG BACT and all sources with GHG emissions of at least 100,000 tpy need operating permits.
- U.S. EPA has deferred requiring GHG permits for the CO₂ emissions from biogenic sources until July 2014 while it gathers more data on how to regulate CO₂ emissions from these sources.
- Through the rulemaking process IDEM has obtained the legal authority to issue the federally required GHG permits.



Office of Land Quality Accomplishments

- GM Bankruptcy settlement for \$25,174,482 to be utilized to address environmental issues at 8 GM plants in Indiana.
- Remediation of 2 units at Continental Steel completed with expectation entire site remediation will be completed by year end.
- Constructed and implemented an aggressive cleanup system for soil and ground water at Univeritical in Angola using a combination of private, local and state funds.



Office of Land Quality Accomplishments

- Secured a \$14 million settlement to remediate the Cam-Or Superfund Site in Westfield.
- Increased the number of “Tier 2” chemical inventory reports submitted electronically from 1350 to over 4500.



Office of Land Quality Permitting

- Issued 717 permit decisions last fiscal year.
- 58% of the decisions were relative to Confined Feeding permits.
- On average the decisions were issued in 60% of the time required under the statute based on calendar days.



Office of Land Quality Permitting

- Significant Decisions
 - Merom Station Expansion Coal Ash Disposal Landfill, Sullivan County.
 - Soil Solutions Waste Wood Processing Facility, Elkhart County.
 - ArcelorMittal Burns Harbor industrial waste landfill.



Office of Land Quality Rulemaking

- CFO / CAFO Rule Revisions.
- Temporary Storage and Management of Lead Acid Batteries.



IDEM 2011 GOALS AND CHALLENGES



2011 IDEM Major Goals

- Complete Antidegradation Rulemaking Process.
 - Draft rule is available for public review.
 - WPCB Preliminary Adoption Meeting July 27, 2011, action postponed to September 19, 2011.
- Obtain U.S. EPA approval of attainment designations for $PM_{2.5}$ for all of Indiana.
 - Evansville proposed May 23, 2011.
- Complete CAFO/CFO Rulemaking Process.
 - Preliminary Adoption May 11, 2011.
- Adopt RISC Closure Guidance as an NPD.
 - Released for public comment May 6, 2011.



2011 IDEM Challenges

- Reissue NPDES General Permits Administratively and address antidegradation requirements.
- Provide Information to EQSC on:
 - IDEM program funding and costs.
 - Mint farm air emissions.
 - Possible responsibilities and funding sources for Solid Waste Management Districts.
- Attainment designations for new SO₂ Standard.

A stylized logo for 25 years, featuring the number '25' in a large, bold, serif font with 'years' written in a smaller, cursive font to its right.

2011 IDEM Challenges

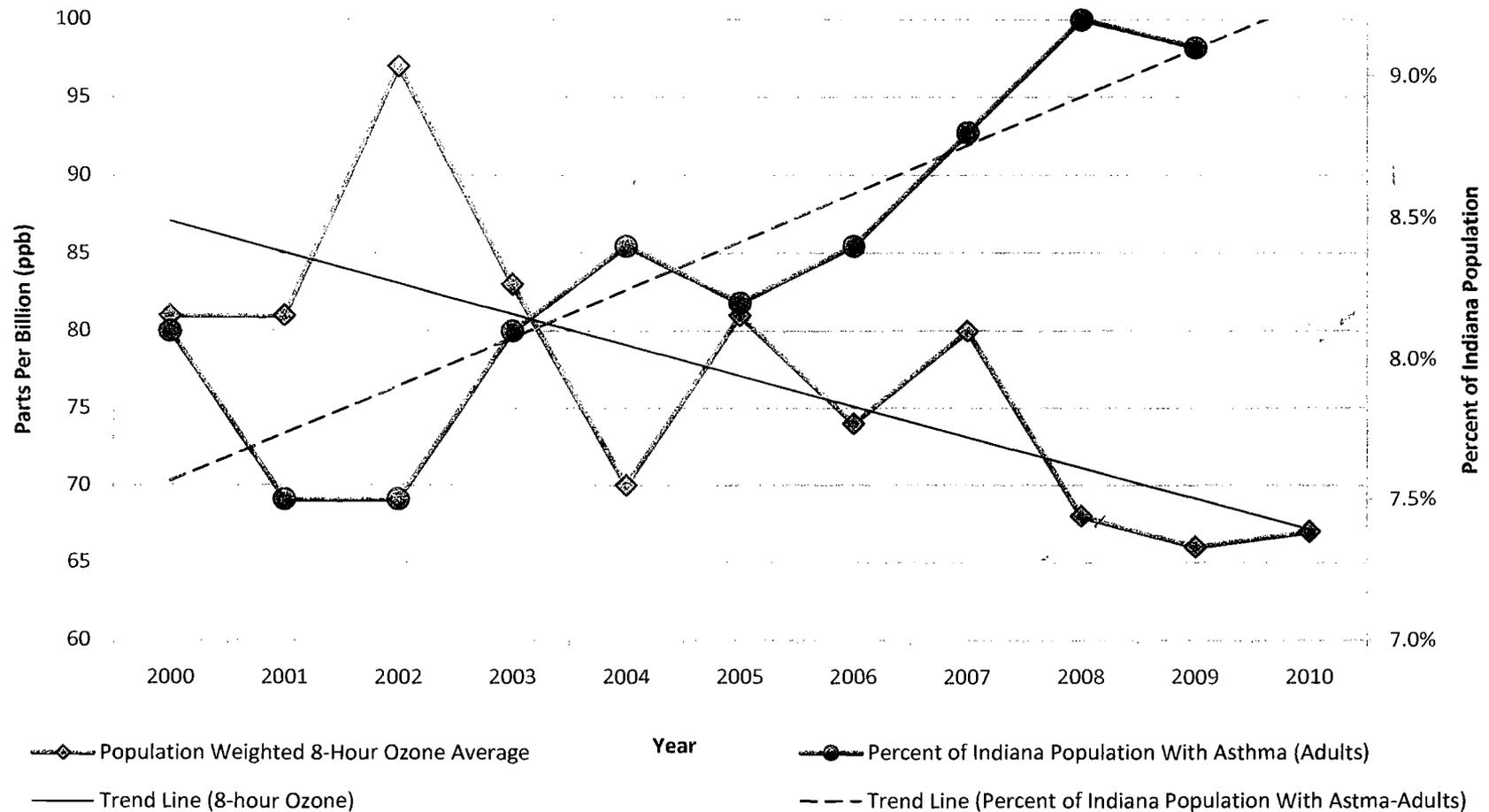
- Respond to U.S. EPA's reconsideration of the 0.075 ppm ozone standard.
- Other possible U.S. EPA decisions such as 316(b) cooling water intakes, no CCW decision.
- Develop plan for seamless implementation of water program responsibilities currently assigned to: IDEM, ISDH, IDNR, OISC, ISDA, and possibly U.S. EPA (UIC) and U.S. ACE (404).



Air Quality and Asthma Trends (Statewide)

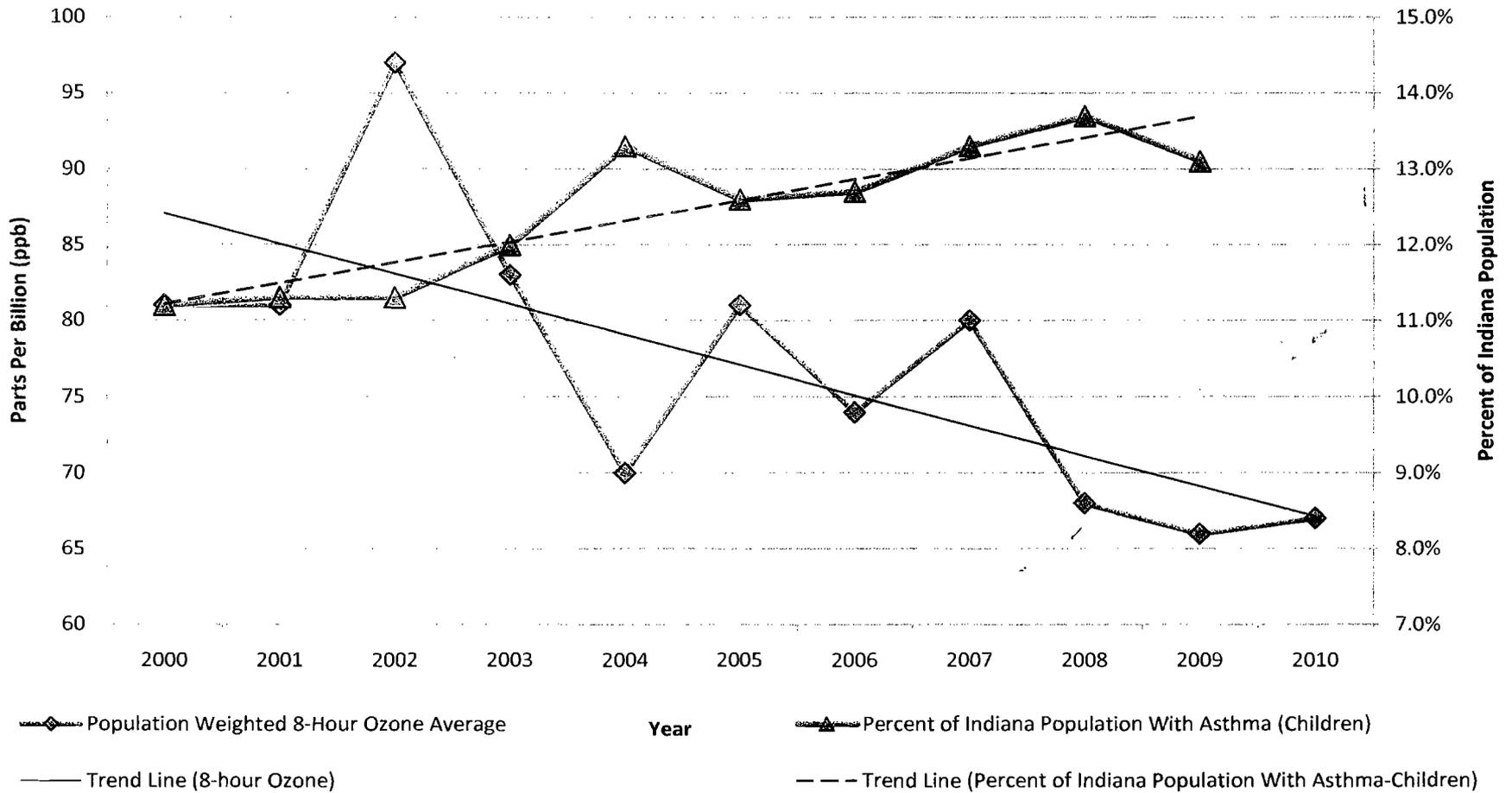


Population Weighted Ozone Trend Compared To Adult Asthma Trend

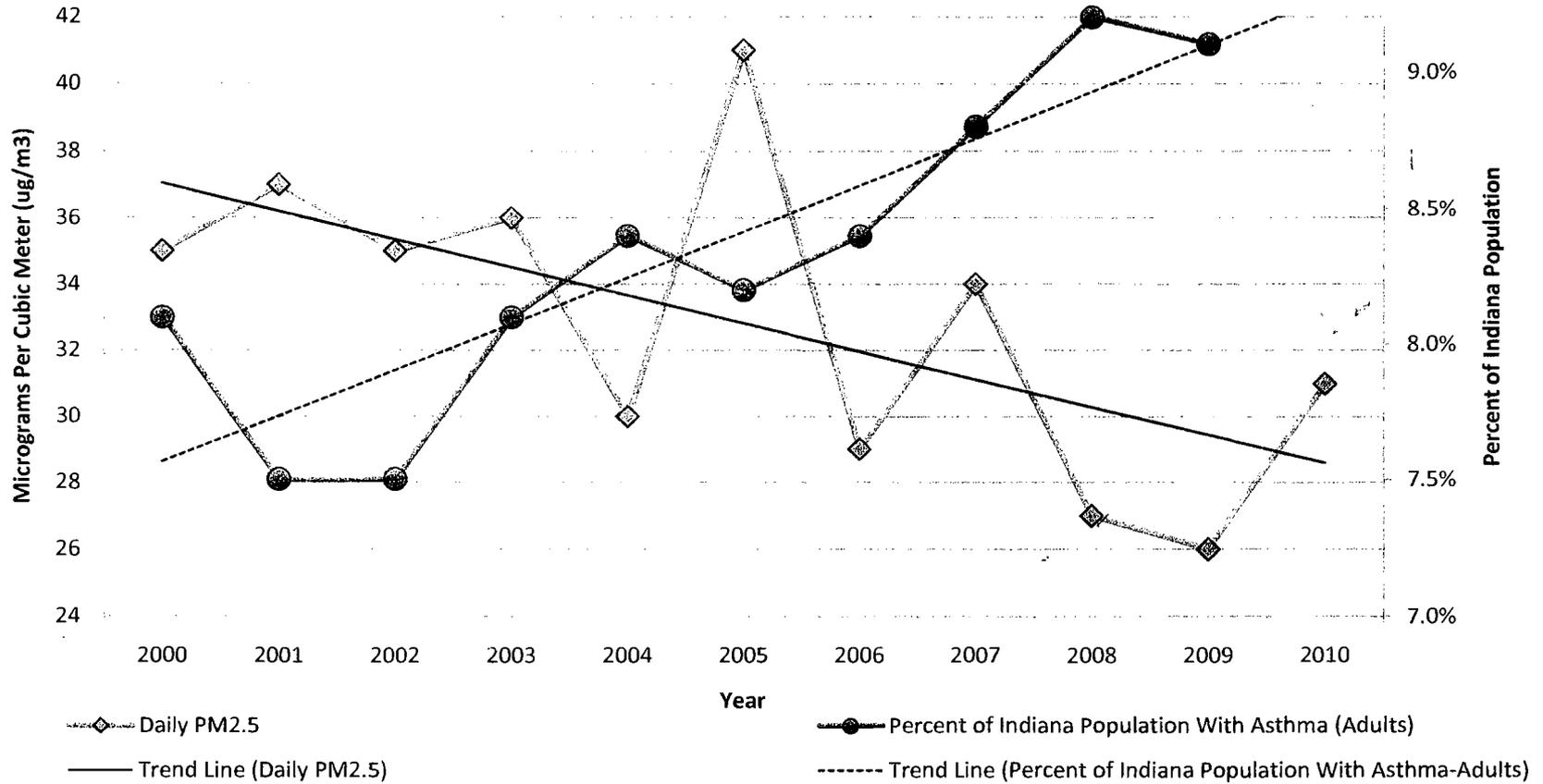




Population Weighted Ozone Trend Compared To Children Asthma Trend

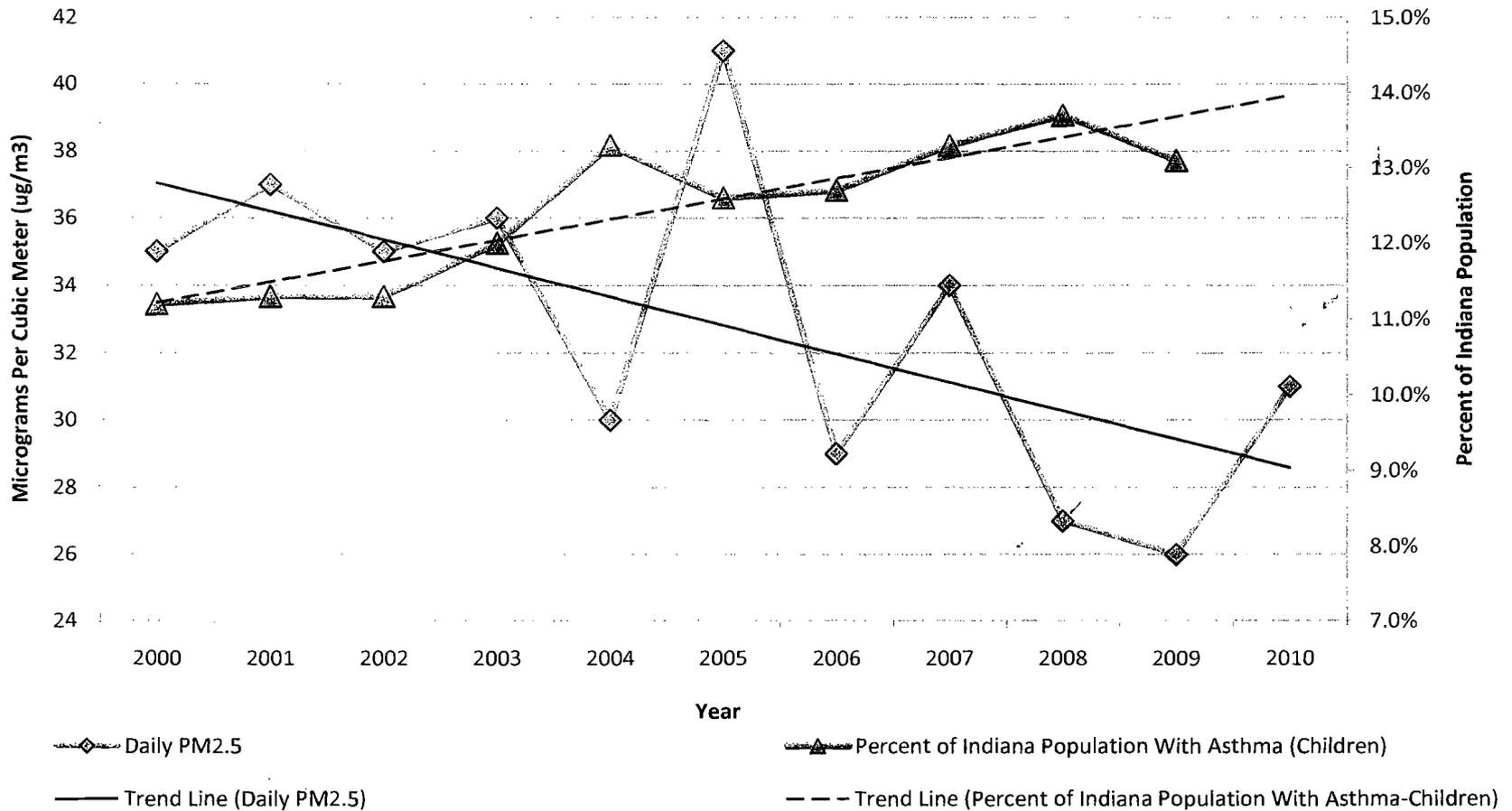


Population Weighted Particulate Matter (PM2.5) Trend Compared to Adult Asthma Trend





Population Weighted Particulate Matter (PM2.5) Trend Compared To Children Asthma Trend





INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



Questions?



Brad Baughn

Business & Legislative Liaison

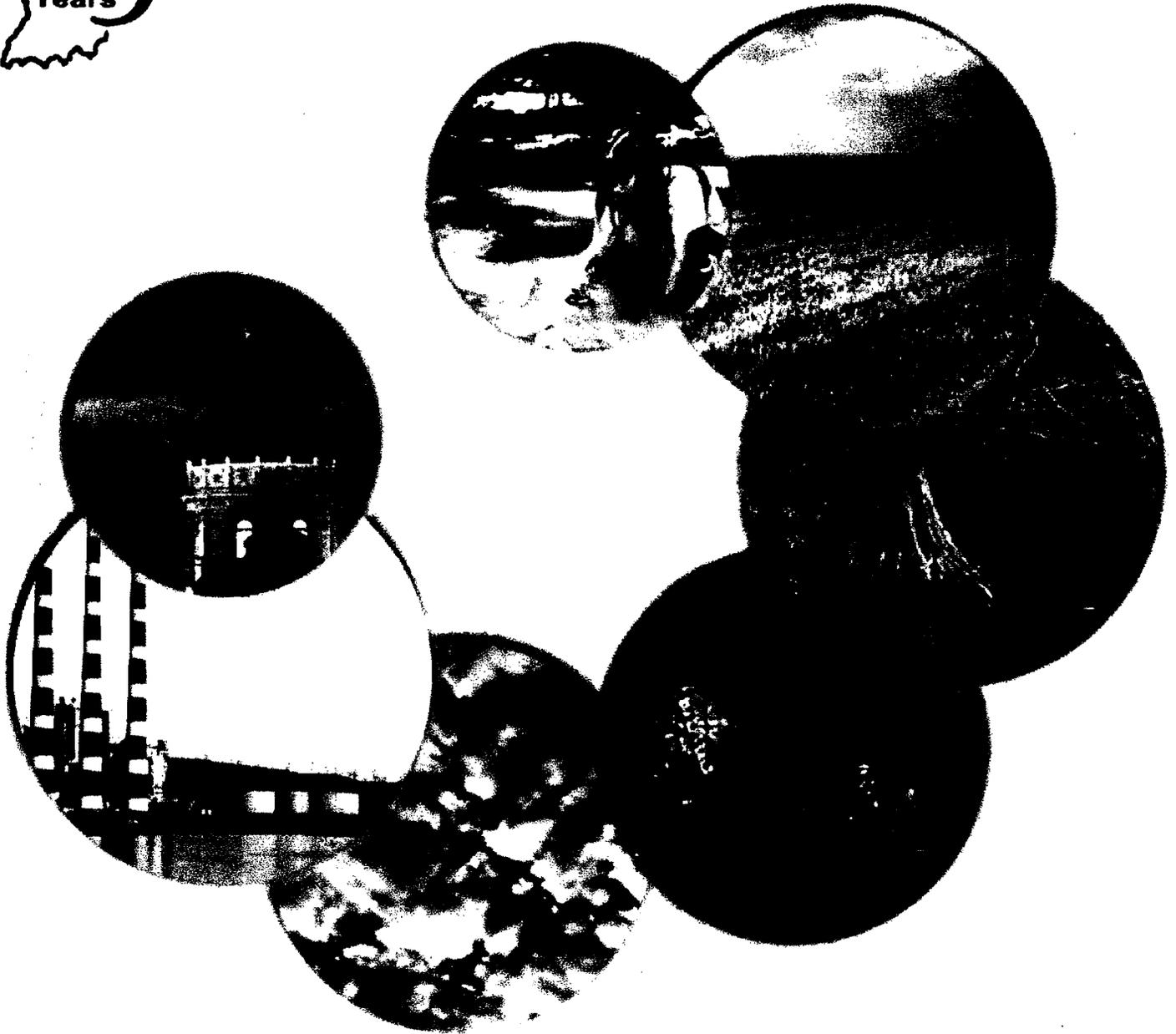
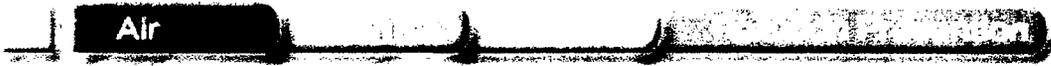
bbaughn@idem.in.gov

317-234-3386

Exhibit 2 - EQSC, Aug 4th 2011



Indiana Department of Environmental Management



25th Anniversary
State of the Environment 2011



Dear Fellow Hoosiers:

I attended a concert in Bloomington a few months ago, and of the 14 musicians on stage, only six were introduced by name. The other eight musicians hidden at the back of the stage were simply introduced as "the orchestra." Their names were not even listed in the program.

What struck me was that the music would not be complete without all 14 musicians. Working at IDEM is sometimes like being the invisible, but greatly-needed orchestra member. On any given environmental issue, a public information officer, inspector, permit writer, rule writer, lawyer or manager may be the face of IDEM. However, they could not succeed without the excellent work done by ALL of our team members. IDEM excels because of the commitment of every staff member.

While our team continues to make changes in our quest to find the most efficient way to protect Hoosiers and our environment, we are most successful when our fellow Hoosiers are fully employed by financially successful enterprises. To this end, IDEM continues to issue permits critical for business operations in a timely fashion. We have helped thousands of businesses understand their permit requirements, reduce waste and achieve compliance. Agency efficiency and transparency has been greatly enhanced by the creation of a Virtual File Cabinet, giving users access to over 65 million pages of environmental information online.

We continue to encourage public participation to ensure decisions made with respect to rules and permits are sound and viable. Meanwhile, communities, businesses, child care facilities and schools continue to participate in IDEM programs to save money and reduce pollution. As in years past, IDEM staff are visiting schools and talking with more than 12,000 young Hoosiers to celebrate Earth Day.

As a group, we have successfully improved the quality of Indiana's environment during times of financial stress as well as times of economic prosperity. As we celebrate Earth Day 2011 and reflect on the past 25 years, we must also look forward and continue building a healthy, environmentally-friendly future. We encourage you to visit www.idem.IN.gov to find out more about Indiana's environment.

Thomas E. Brown, Deputy Director
April 22, 2011



EXECUTIVE SUMMARY

Indiana has made great strides toward achieving its mission of protecting Hoosiers and our environment. Through the efforts of citizens, businesses, the Indiana Department of Environmental Management (IDEM), and our federal, state and local partners, measurable successes have taken place in the areas of air quality, land quality, water quality and pollution prevention.

In 2009, for the first time since air quality standards were developed in the 1970s, all Hoosiers were breathing air that met current health-based standards. This was a significant accomplishment, considering as recently as 2005, Indiana had 24 counties and townships in violation of the ozone standard and 17 counties and townships in violation of the annual standard for fine particulate matter. However, the standards continue to tighten, reflecting the ongoing evaluation of potential impacts and advances in technology. In 2010, the United States Environmental Protection Agency (U.S. EPA) set a new standard to further reduce exposure to lead in the air we breathe. As a result, approximately 700 Muncie residents living near West 26th Street and Hoyt Avenue may be exposed to lead concentrations considered unacceptable under the new air health standard. IDEM is working to ensure that these Hoosiers again have air that meets all health-based standards.

To restore and preserve the quality of Indiana's land, IDEM oversees the cleanup of contaminated properties and the proper management of wastes. Multiple IDEM initiatives have resulted in cleaner, healthier land. Since 2005, potential exposure to harmful contaminants has been eliminated or controlled at 58 hazardous waste sites, with ground water contamination being controlled at 55 of those sites; IDEM's State Cleanup program has overseen the completion of 290 site cleanups; 149 new Voluntary Remediation Program (VRP) projects were launched and 77 VRP sites were completed. Over the years, IDEM and U.S. EPA also have implemented remedies at 27 Superfund sites. Figures tracked since 2005 show more than 50 million pounds of illegally dumped tires have been cleaned up—an amount equal to two million passenger tires.

In 2007, the entire 1,269-ton stockpile of VX nerve agent that had been stored in Newport, Indiana since the U.S. chemical weapons program ended in 1969 was safely and completely destroyed. VX is so toxic that a single drop on a person's skin can be fatal. IDEM's handling of the project has been cited by the U.S. Army as a model for other similar projects.

IDEM also has worked hard to improve Indiana's water quality. In 2005, more than 100 Indiana communities were discharging untreated raw sewage to Indiana waterways during rain events. These were communities where sewer systems were designed with combined sewer overflows, allowing partially treated wastewater to be diverted into nearby waterways in times of wet weather. Today, 104 of those communities are working on major projects to reduce discharges and the remaining four are working with IDEM and U.S. EPA to finalize agreements. When all projects are completed, billions of gallons of untreated wastewater will be kept out of Indiana's lakes, rivers and streams annually.

Through the years, watershed management has become the heart of successful water quality restoration and protection. In the past six years, coordinated efforts between IDEM and local



communities have helped launch projects estimated to prevent over 500 million (500,000,000) pounds of sediment, 332,000 pounds of phosphorus and 546,000 pounds of nitrogen from entering rivers and streams annually. Assessments of segments of Big Walnut Creek, Clifty Creek and Pigeon Creek show quality has improved significantly, and previously polluted portions of these streams now meet water quality standards.

Streamlined procedures begun in 2005 under Governor Mitch Daniels and Commissioner Tom Easterly enabled IDEM to improve efficiency, retain staff and continue providing effective environmental protection in a difficult economy. Process improvements enabled efficient turnaround times for the issuance of environmental permits critical for business operations and virtually eliminated IDEM's permit backlogs, where renewal permits had been delayed for as long as 20 years.

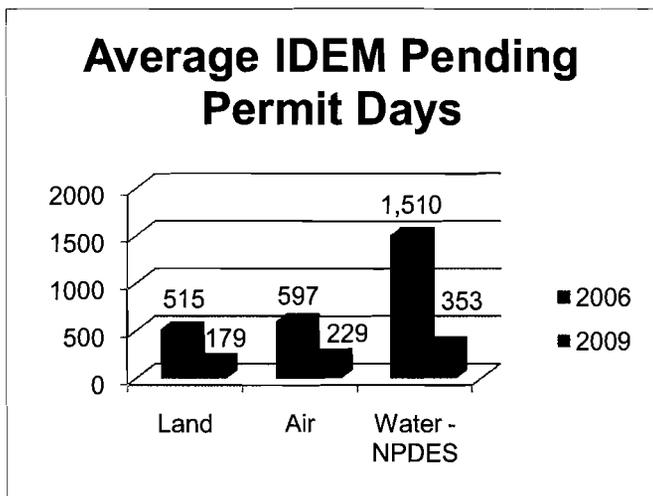


Figure 1. Average Days for Pending Permit Applications, All Permit Types

The cumulative average days for pending permit applications were significantly reduced between 2006 and 2009. In 2009, the average permit was issued within 75 percent of statutorily allowed time—for example, a permit with 365 day statutory limit was issued within 274 days.

IDEM strives to help Hoosier businesses understand and achieve environmental compliance through “assist first, enforce second.” An estimated 190,000 pounds of industrial and chemical wastes were safely managed through the coordinated efforts of IDEM and businesses during recent layoffs and closures. The Office of Pollution Prevention and Technical Assistance (OPPTA), now integrated within the newly formed Office of Compliance Support, worked with over 4,000 regulated businesses to help them understand their permit requirements, conduct sampling, reduce waste and achieve compliance. IDEM has worked to increase voluntary pollution prevention, and dozens of businesses, schools, child care facilities and communities are participating in special environmental stewardship programs. Since 2007, businesses and communities reported reducing approximately 7.3 million pounds of solid waste and 219.5 million pounds of hazardous waste; preventing 81 million pounds of pollution from entering Indiana waters and over 3.1 billion pounds of pollution from entering the air; conserving 2.3 billion gallons of water; and, diverting 831 million pounds of waste from landfills.

The 25th Anniversary State of the Environment 2011 includes a look at change that began in 1986, recent accomplishments, and issues and challenges we face as we look to the future. Additional information about our progress and current programs, along with the full 25th Anniversary State of the Environment 2011 report, can be found online at www.idem.IN.gov.

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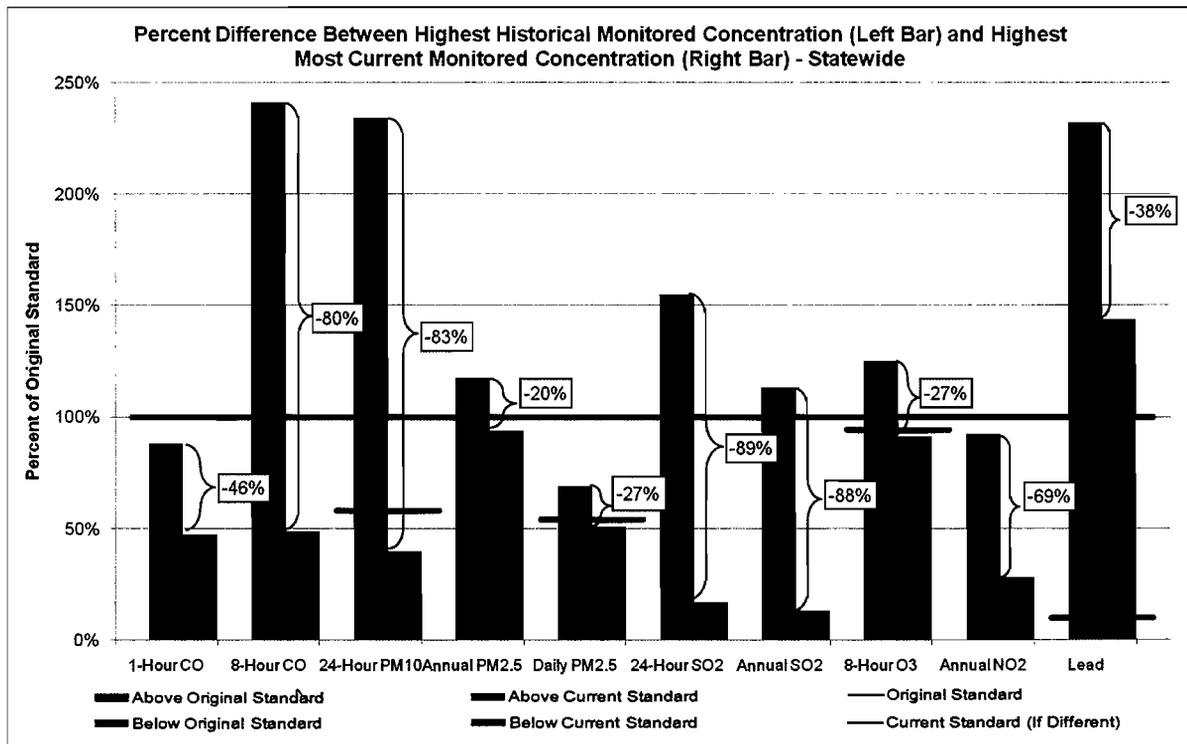
IMPROVED AIR QUALITY

Air quality has improved substantially in the past six years. At the start of 2005, Indiana had 24 counties and townships in violation of the ozone standard and 17 in violation of the annual standard for fine particulate matter (PM). In 2009, all 92 counties in Indiana met all current health-based air quality standards, including those for ozone and fine particulate matter.

MEETING THE AIR QUALITY STANDARDS

IDEM evaluates the quality of Indiana's air by taking samples and comparing the pollution levels to standards set by U.S. EPA. Until an area meets the health-based standard, businesses are subject to more strict permitting requirements. The graph below shows the improvements in air quality by comparing the highest historical concentration to the highest current concentration.

Figure 2. Air Quality Improvement Compared to the Health-based Standards



U.S. EPA set the standards in three year averages. Federal and state programs have improved air quality in recent years so that the only pollutant remaining above the current health-based standards is lead.



TIGHTENED STANDARDS LEAD TO NEW CHALLENGES

Since 2005, the U.S. EPA has set new ambient air quality standards for five criteria air pollutants: particulate matter, lead, nitrogen dioxide, sulfur dioxide and ozone. Current monitoring data indicates that all of Indiana meets the new particulate matter, nitrogen dioxide and ozone standards; however a small area does not meet the new lead standard and there will likely be areas that do not meet the new sulfur dioxide standard. Once areas not meeting the standard are identified, IDEM works to identify and control the sources of pollution causing the area to exceed the standard.

In 2010, U.S. EPA drastically tightened the health-based standard for lead, making it more protective of public health. Monitors show all regions of Indiana meet the new lead standard with one exception: the new lead standard may be a concern for approximately 700 Muncie residents living near West 26th Street and Hoyt Avenue. IDEM is actively working to ensure that these Hoosiers again have air that meets all health-based standards.



IDEM staff member checking an air monitor.

INDIANA'S COMPREHENSIVE MONITORING NETWORK ENHANCED

Indiana operates and maintains more ambient air quality monitors per capita than other Midwestern states. A strong air quality monitoring network provides relevant data to communities and helps Indiana track the health-based air quality standards.

Indiana has one ozone air monitor for every 154,000 Hoosiers, which is the best among our neighboring states. Ohio has the closest ratio to Indiana, with one monitor for every 230,000 Buckeyes.

While Indiana's air monitors have collected data for decades, public access to this data has been limited in the past. IDEM implemented the Leading Environmental and Analysis of Data System (LEADS[®]) in 2008, to automatically post continuous monitoring data on the IDEM website. There are currently 62 LEADS[®]-enabled monitoring sites uploading criteria pollutant levels in near real-time. Key meteorological information, such as temperature, wind direction, and wind speed, are also available for these monitoring sites. The information is available online at www.idem.IN.gov/airfacts.

PERMITTING EFFICIENCY IMPROVES

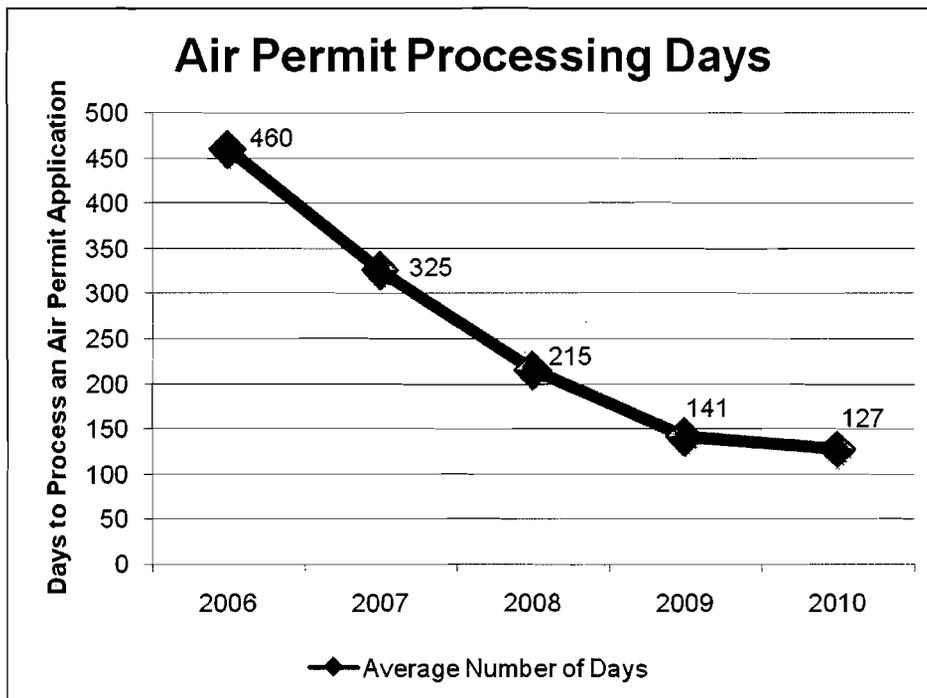
In 2005, IDEM had a substantial backlog of pending air permit applications and renewals. At that time, IDEM staff were writing only 35 percent of the air permits while 65 percent of IDEM's air permitting work was assigned to local agencies and out-of-state contractors, at a cost of over two million dollars per year. Governor Daniels and Commissioner Easterly made it a goal to bring all air permitting work in-house and eliminate the permit backlog.

Starting in 2006, IDEM began to migrate air permit writing back in-house. Through the use of LEAN/Kaizen events, IDEM's Office of Air Quality (OAQ) permitting branch was restructured,

the permit application process was streamlined, workloads were adjusted, and staff were cross-trained. Unnecessary steps were eliminated and a pre-application meeting was added to ensure submitted applications were complete and accurate.

In December 2007, IDEM had 157 backlogged permits, the oldest of which was 2,710 days (nearly 7.5 years). By April 2009, all backlogged permits were completed.

Figure 3. Air Permit Processing Days



This chart shows the average number of days it takes for a permit to go from a submitted application to a final permit.

UNIFICATION OF COMPLIANCE AND ENFORCEMENT FUNCTIONS

The Office of Enforcement was reorganized in November 2008 and placed in the compliance programs of the Office of Air Quality, Office of Land Quality and Office of Water Quality. The reorganization increased efficiency, communication and accountability within each of the compliance programs and created a more efficient process to address and resolve noncompliance. In February 2009, OAQ integrated inspectors and enforcement case managers in the unification of its compliance and enforcement functions.

In addition to conducting inspections, responding to complaints, approving stack tests and reviewing emissions monitors, IDEM offers compliance assistance. In 2008, OAQ implemented a program to help air-permitted facilities with their Title V permits, Federally Enforceable State Operation Permits (FESOPs), Minor Source Operating Permits (MSOPs), permit renewals and significant source permit modifications. OAQ offered to meet with sources, review permit requirements and discuss new air permit requirements. IDEM also provides assistance when new regulations go into effect, such as the surface coating initiative and a foundry carbon monoxide permit limited liability initiative.



CAREFUL EVALUATION OF AIR TOXICS AND PUBLIC HEALTH

Some airborne chemicals are toxic to human health and the environment. Congress regulates these chemicals by categorizing 188 chemicals as hazardous air pollutants (HAPs). Today, the U.S. EPA looks at air toxics, which includes HAPs, to determine potential health effects from breathing the air. Air toxics are pollutants that could cause short-term (acute) or long-term (chronic) health effects and can be naturally occurring or released by human activities, such as manufacturing, burning fossil fuels, using cleaning products and painting. Potential health impacts include cancer, respiratory and cardiovascular diseases, developmental effects, reproductive dysfunction, neurological disorders, inheritable gene mutations, and other serious or irreversible health effects in humans.

IDEM has monitored air toxics around Indiana since 1999 and has released a report, “ToxWatch Data Analysis Report,” evaluating the data from the first ten years (1999-2008) of air toxics monitoring. The report, available at www.idem.IN.gov/6544.htm, confirms that the levels of air toxics are within acceptable levels as recommended by U.S. EPA. Additionally, measured levels of air toxics in Indiana have declined since 1999.

Like the rest of the United States, Indiana’s air contains significant amounts of acrolein and benzene from motor vehicle emissions, as well as one pollutant no longer produced, carbon tetrachloride. Indiana is continuing to work with U.S. EPA to address all motor vehicle-related emissions. IDEM continues to operate 10 air toxics monitors that collect data across the state to ensure that Hoosiers are not exposed to unhealthy levels of toxics in their air. Current air toxics data is available at www.idem.IN.gov/4663.htm.

IDEM also conducted a detailed air toxics study in Southwest Indianapolis from 2006 to 2009. This study found that the concentration of air toxics in the area was acceptable and similar to those in other urban areas in the Midwest. Using air samples, emissions data and computer modeling, the study used real-world air monitoring and virtual air dispersion modeling to characterize the risk from breathing air toxics. The study’s goal was to determine if any of 168 pollutants warranted further attention to reduce potential health risks. A group of external technical experts provided a practical review of technical aspects of the study and served as a source of new ideas to aid the agency. More information about the study can be found at www.idem.IN.gov/4500.htm.

IDEM is also working with U.S. EPA to monitor the air quality at four Indiana schools; Jefferson Elementary School in Gary, Abraham Lincoln Elementary School in East Chicago, Lincoln Elementary School in Warsaw, and Pittsboro Elementary in Pittsboro. This is part of a nationwide initiative by U.S. EPA to obtain air quality information at schools where air toxics may be elevated. While the concentrations found during this study were all within acceptable health-based levels as established by U.S. EPA, concentrations of manganese at two of the schools, Abraham Lincoln Elementary School in East Chicago and Jefferson Elementary School in Gary, were above normal background levels, and sampling at those schools has been continued into 2011.

SUCCESSFUL PARTNERSHIPS AND OUTREACH

Voluntary Idling Program



Voluntary Idling Program

"The VIP challenge is a commitment to informing not only internal employees but also external employees how to become more effective and efficient in the trucking industry while at the same time being more economically, socially, and environmentally responsible."

Brent Kress, staff Eco-Strategist, Jasper-based Versteel

IDEM's VIP initiative assists Indiana freight carriers, manufacturers, distributors and retailers to reduce air pollution emissions by eliminating unnecessary heavy-duty diesel truck idling.

VIP is one of several diesel-related programs implemented throughout the state. Others include a voluntary no-idling program for school buses and diesel retrofitting projects.

As of April 2011, IDEM has 29 VIP Partners. More information can be found at www.idem.IN.gov/4128.htm.

Partners for Clean Air

Partners for Clean Air is a coalition of 200 Northwest Indiana and Chicago area businesses, industries and community groups committed to improving air quality through voluntary actions. Members of the Partners for Clean Air program develop Air Quality Action Plans, which are designed to be implemented on Air Quality Action Days, as a way of reducing ozone, PM_{2.5} and other harmful pollutants. More information about Partners for Clean Air can be found at www.idem.IN.gov/4130.htm.

Clean Air Indiana

In 2008, IDEM created the Ozone Knockout public awareness campaign to educate Hoosiers about small steps they can take to improve local air quality. Renamed "Clean Air Indiana" in 2009, IDEM staff traveled the state throughout May and June, meeting with businesses and citizens to



IDEM's Southwest Regional Office Deputy Director Dave Holder (on the left) visited Jasper-based Versteel on Oct. 26, 2009 to officially inaugurate the company into IDEM's Voluntary Idling Program.





offer tips and information about voluntary measures for reducing emissions of ozone-forming pollutants.

Staff encouraged patrons and citizens to avoid idling in drive-through lines, use public transportation, ride bikes or walk to nearby destinations, turn up air conditioners a few degrees, and mow their yards and pump gas during the cooler evening hours.

For more information about the Clean Air Indiana campaign and summer pollutants such as ozone, go to www.CleanAirIndiana.IN.gov.

CONCLUSION

The purpose of IDEM's Office of Air Quality is to assure that every Hoosier has healthy air to breathe. In order to meet this purpose, IDEM routinely samples Indiana's air quality, provides timely air permits to qualified applicants, and verifies compliance with applicable state and federal air pollution laws and regulations.

IDEM strives to issue air permits that are protective of human health and the environment; create industry-specific rules that limit air emissions; and verify that businesses comply with their state permits.

Additionally, IDEM works with regional partnerships and outreach initiatives to ensure that Hoosiers are better educated about air quality. The result of these efforts is that Indiana's air quality continues to improve. U.S. EPA has tightened air quality standards and will continue to do so in the future. IDEM will continue to work to reduce pollutant levels and keep Indiana's air healthy.



In June 2009, IDEM staff spoke to members of the U.S. and British armed forces during a Clean Air Indiana outreach event held on Monument Circle in Indianapolis.

IMPROVED LAND QUALITY

Keeping our land healthy includes properly managing petroleum and chemical releases, as well as cleaning up contamination that may have occurred decades before regulations were adopted to protect the environment. Therefore, it's what we don't find that is a reflection of environmental quality. Looking back just a few decades, it was common to find mismanaged hazardous waste; pest-infested open garbage dumps near every urban area; large tire dumps in woodlands and streams; careless tire fires that contaminated air, land and water; and abandoned warehouses filled with hundreds of drums of caustic, flammable and toxic industrial waste.

While these environmental problems were not uncommon 30 to 40 years ago, today they are essentially extinct. This is the result of the development of a cradle-to-grave system for managing hazardous waste and Indiana's aggressive compliance, enforcement and permitting programs for all types of waste. Our primary focus has shifted from reacting to the imminent threats common in the past to ensuring the long-term protection of Hoosiers and our environment.

ELIMINATING THE PERMITTING BACKLOG

In 2005, there were 367 backlogged land permits, and today there are only three. Additionally, since 2005, the average time to issue a permit has decreased from 515 days to 179 days. Up-to-date permits ensure that livestock operations, solid waste processors and landfills are held accountable for complying with current standards.

OVERSEEING CLEANUPS

Indiana uses six main programs to ensure the cleanup of contamination. The Emergency Response program addresses contamination from spills that are often completely cleaned up during the initial response. If the contamination cannot be cleaned up through emergency response action, the responsibility is transferred to one of IDEM's other cleanup programs. The most serious contamination often qualifies for the federal Superfund program, where U.S. EPA provides financial and technical assistance to assist IDEM in making sure that the contamination is properly addressed and that any identifiable parties contributing to the contamination pay their share of the cleanup costs.

If the contaminated site does not qualify for federal assistance under Superfund, assistance may be available under IDEM's State Cleanup Program, which is Indiana's version of Superfund (IDEM's State Cleanup Program does not receive federal funding). Indiana also has a Voluntary Remediation Program (VRP) that allows responsible parties to clean up contaminated properties under IDEM supervision. When the contamination is successfully remediated under VRP, the owner may receive a Covenant Not to Sue from the state for the pollutants that were addressed.

The management of hazardous waste regulated under the federal Resource Conservation and Recovery Act (RCRA) is overseen by IDEM's RCRA program. Finally, IDEM's Underground Storage Tank (UST) program deals with petroleum contamination from underground storage tanks. Together, these IDEM remediation programs have successfully ensured the cleanup of contamination from thousands of sites in Indiana. More detail on these programs follows.



Emergency Response Program

When spills and releases occur, containment and cleanup is essential to protecting human health and our environment. From traffic accidents involving hazardous cargo or petroleum releases to emergencies at industrial facilities, communities and businesses around the state rely on IDEM's oversight and guidance when emergencies arise. When calls come into the IDEM hotline, highly trained responders work alongside other agencies to help the businesses and individuals responsible for the incident provide effective environmental protection. Environmental emergencies can be reported to IDEM's 24-hour spill line at (888) 233-7745.

Superfund Program

U.S. EPA's National Priorities List, better known as Superfund, addresses highly contaminated sites or those which pose an immediate threat. Since 2005, IDEM has recommended four new Superfund sites and obtained assistance under the federal Superfund program to ensure area residents are being protected from potential exposure to harmful contaminants. At the same time, IDEM and U.S. EPA continue working together on cleanups at 14 sites and monitoring at 27 sites where remediation projects have been completed.

New Superfund sites added since 2005:

- Lane Street Ground Water Contamination Site in Elkhart on October 23, 2009;
- U.S. Smelter and Lead Refinery (USS Lead) in East Chicago on May 11, 2009;
- Lusher Street Ground Water Contamination in Elkhart on March 19, 2008; and,
- Elm Street Ground Water Contamination site in Terre Haute on April 6, 2007.

The Waste, Inc. Superfund site in Michigan City was delisted from the National Priorities List on October 20, 2008. All cleanup objectives were met and monitoring continues at the site.

Indiana received \$10.9 million dollars in 2009 American Recovery and Reinvestment Act (stimulus) funding for the cleanup of the Continental Steel Superfund site in Kokomo and the Jacobsville Neighborhood Soil Contamination Superfund site in Evansville.

State Cleanup Program

IDEM's State Cleanup Program oversees the cleanup of hazardous waste sites and some petroleum contaminated sites. Examples include dry cleaners, manufacturing facilities, petroleum pipelines, refineries and bulk storage facilities. Between 2005 and 2010, 1,178 sites were referred to the State Cleanup Program for oversight. In that time, 290 sites have been completely addressed or closed. IDEM is working to ensure the proper management of all remaining sites.

During the recession of 2008 through 2010, IDEM worked with the Indiana Attorney General's office to file \$27 million in environmental claims during bankruptcy proceedings so that the companies causing the pollution, rather than Hoosier taxpayers, would pay for projects to address the contamination. Indiana has received approximately \$17.5 million to mitigate pollution impacts of those sites. These funds are being managed by program staff to complete

cleanups. Additionally, the State Cleanup Program coordinates with local communities and the Indiana Brownfields Program to facilitate economic redevelopment of contaminated sites.

Voluntary Remediation Program (VRP)

IDEM's VRP was established by the state legislature in 1993 to help property owners or operators voluntarily address environmental concerns. Since 2005, 149 new VRP projects have been accepted into the program, and IDEM has issued Certificates of Completion for 77 projects. Since the program's inception in 1993, 245 projects have been successfully remediated and issued certificates. Program participants investigate and, if necessary, clean up sites under IDEM's oversight.

At the successful conclusion of a project, participants receive a Certificate of Completion from IDEM, and are eligible to receive a Covenant Not to Sue from the Governor's Office after recording the Certificate of Completion onto the property deed. These documents provide liability protection to the VRP participant and subsequent property owners for the releases that were addressed in the project. The VRP may be used to facilitate property transfers, reduce the threat of future litigation, and increase the value of the land.

Cleaning up Hazardous Waste at Industrial Sites

Under the federal Government Performance and Results Act, industrial sites that treated, stored or disposed of hazardous waste are actively assessed for soil and ground water contamination. Since 2005, potential exposure to harmful contaminants has been eliminated or controlled at 58 hazardous waste sites, with ground water contamination being controlled at 55 of these sites. IDEM will continue coordinating with U.S. EPA to meet goals for effective assessments and ensure necessary measures are taken to protect Hoosiers and our environment.

Underground Storage Tank Program

IDEM has successfully ensured the cleanup of leaks and spills from Underground Storage Tanks (USTs). Since 1986, owners and operators of USTs reported 9,170 releases. At the end of 2010, 7,130 cleanups were completed and 2,040 cleanups were on-going. The number of releases has dropped significantly, from an average of over 600 per year from 1989 to 1999, to an average of less than 200 per year from 2000 to 2010. The number of cleanups completed increased from 265 to 375 per year during the same time period.

New IDEM rules regulating USTs that became effective in 2009 require double-wall protection for new and replaced tanks, as well as piping and under-dispenser containment for new dispenser installations. The rule also requires that by 2012, managers, on-site operators and owners must be trained to operate their underground storage tanks correctly and in accordance with IDEM's rule standards. IDEM is currently developing a web-based training program that will be available without charge to all operators to allow them to meet this new training requirement.

HELPING BUSINESSES PROTECT OUR ENVIRONMENT

Businesses that close due to economic hardship often face the added responsibility of managing large amounts of chemicals and waste materials. IDEM identified and conducted site visits at 75 facilities that were in the process of closing and identified over 190,000 pounds of associated waste that needed to be properly managed. IDEM was often able to help companies transfer



their unneeded chemicals to another business that could properly use the material. The sites were identified using the U.S. Department of Labor’s Worker Adjustment and Retraining Notification (WARN) system, which provides advance notice of plant closings and mass layoffs.

Many small businesses that store and dispose of hazardous waste may not be aware of the regulations they must comply with, including the need for registration with U.S. EPA. In partnership with the Indiana Manufacturer’s Association, IDEM instituted a non-notifier program. Under the initiative, IDEM staff contacted manufacturing facilities that were not registered as “notifiers” with U.S. EPA and provided them with compliance assistance documents, including self-audits and self-certifications.

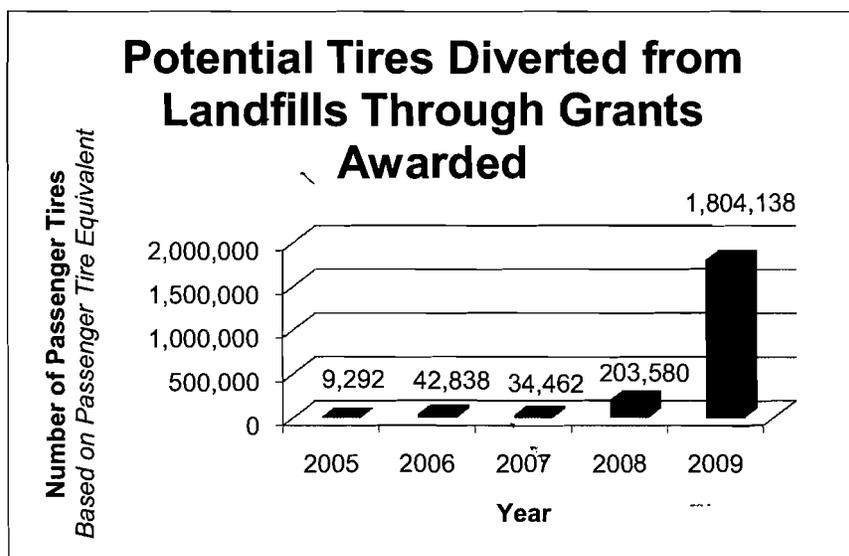
Clearing Away Illegal Tire Dumps

Since 2005, IDEM has cleaned up more than 50 million pounds of illegally dumped tires—the equivalent of more than two million passenger tires—at a cost of nearly \$2.4 million. Large tire piles are breeding grounds for disease-carrying mosquitoes. If set on fire, large tire piles burn with intense heat, blowing thick, hazardous smoke downwind. Tire fires are difficult to extinguish and can burn for days. While most funding has come from Indiana’s Waste Tire Fund, some of the sites have been cleaned up by parties voluntarily agreeing to participate in an environmentally-beneficial project as part of an enforcement settlement with IDEM.

Finding Beneficial Uses for Waste Tires

Since 2005, IDEM awarded \$1 million for projects that will reuse almost two million waste tires through its Waste Tire Management Grant Program. On average, Indiana generates one waste tire per person per year, which adds up to approximately six million waste tires per year. The grant program promotes a cleaner environment by helping communities and businesses properly manage waste tires, while creating jobs and new sources of energy.

Figure 4. Potential Tires Diverted from Landfills Through Grants Awarded



Since 2005, IDEM awarded \$1 million for projects that will reuse almost two million waste tires through its Waste Tire Management Grant Program.

Indiana Clean Yard Program

Since 2006, IDEM has been concentrating on outreach to auto salvage facilities that must manage automotive fluids, refrigerant and mercury switches. These substances can pose significant environmental impacts if mismanaged or improperly disposed.



In the fall of 2009, IDEM launched the Indiana Clean Yard Program, an incentive program to educate and encourage operations to meet their environmental responsibilities and reward those facilities that go above and beyond the requirements of law. To date, 12 facilities have received recognition through the program. Over 47 additional applications have been received by the agency and are currently being reviewed. More information about the Clean Yard Program can be found online at www.idem.IN.gov/4993.htm.

Animal Feeding Operation Programs



Cows at the Fair Oaks Farm in Northwest Indiana.

There are currently 1,988 animal feeding operations permitted in Indiana and inspected on a routine basis. These include 631 concentrated animal feeding operations (CAFOs) and 1,357 smaller feeding operations called confined feeding operations (CFOs). Indiana's standards for CAFOs are stricter than federal regulations. While the federal regulations for CAFOs do not contain standards for the construction of manure storage facilities, Indiana has had construction standards and requirements in place since the mid-1970s.

Although not required by U.S. EPA, IDEM also regulates CFOs under a state rule. IDEM's CFO program includes operational requirements for the land application of manure. Information about IDEM's regulatory program for CAFOs and CFOs can be found online at www.idem.IN.gov/4994.htm.

PARTNERSHIPS

Removal of VX Nerve Agent from the Newport Chemical Depot

In 2008, the entire 1,269-ton stockpile of VX nerve agent that had been stored in Newport, Indiana was safely and completely destroyed. VX is so toxic that a single drop on a person's skin can be fatal. The stockpile had been stored since 1969, when the United States chemical weapons program ended. IDEM's handling of the project has been cited by the U.S. Army as a model for other similar projects.



Natural Resource Damage Assessment Program

At locations where chemical or petroleum releases or spills cause significant damage to Indiana's natural resources and habitat, IDEM partners with other state and federal agencies to ensure restoration. Projects since 2005 include:

- Current dredging for removal of contaminated sediments in over three miles of the Grand Calumet River and the restoration of more than 600 acres of dune and swale along the Grand Calumet River ecosystem in Northwest Indiana;
- Protection of more than 1,585 acres in the Fish Creek Watershed in Northeastern Indiana through conservation easements, land purchases, reforestation, streambank stabilization projects and wetland restoration;
- \$5.8 million spent on projects in the White River in Central Indiana, including the construction of five new public access sites and the acquisition of 79 acres for restoration and preservation; and,
- An agreement for compensation for damage to 300 acres of wetland and vegetation through closure of 13 leaking, orphaned oil wells in Harmonie State Park in Southwest Indiana.

Since its inception in 1993, the program has obtained in excess of \$100 million in damages and over \$3 million in assessment costs; purchased or obtained conservation easements on over 3,000 acres of land; and provided for the restoration of over 3,800 acres.

Defense Environmental Restoration Program

As it decommissions and consolidates operations, the military works to determine cleanup needs at properties being maintained or transferred for other uses. IDEM is working with the Army, Navy, Air Force, Defense Logistics Agency and U. S. Army Corps of Engineers to complete the assessment and cleanup of 20 Indiana properties at former missile silos, ordnance plants, munitions testing grounds and storage depots, and reserve bases. Since the program's inception in the mid 1990s, more than 5,000 acres have been transferred for economic development and reuse as community parks and preserves, and industrial, business and residential developments. IDEM will continue working with the military to complete assessments and cleanups of these active and former military sites to ensure appropriate land reuse.

Clandestine Drug Lab Cleanups

IDEM has developed a program in response to a law passed by the Indiana General Assembly to train and certify contractors and set standards for the cleanup of properties contaminated by illegal drug labs. Currently, 56 contractors have been certified to help property owners, local health departments and communities ensure properties are safe for occupants. For more information, visit www.idem.IN.gov/4184.htm.

Unwanted Medicines

Historical practices have encouraged the disposal of unwanted or expired medicines by flushing them down the toilet or pouring them down a drain. However, wastewater treatment plants and septic systems are not designed to deal with pharmaceutical waste. Medicines pass through the systems and are released into streams, lakes and ground water. Medication traces remaining in surface water may cause adverse effects in fish and other aquatic wildlife, as well as unintentional human exposure to chemicals in the medication. Thrown carelessly in the trash,

unwanted medicines pose a risk of accidental poisoning for pets and children and a risk of identity theft for individuals whose personal information is visible on the labels.

The best way to reduce the impact of pharmaceutical waste on the environment is to dispose of medicine properly. The good news is that more communities are holding collections to help Hoosiers safely dispose of unwanted medicines. Beginning in 2008, IDEM began partnering with Marsh Pharmacies, the Indiana Poison Center, CLS/Med-Turn and Statewide Medical Services to offer biennial collections at 44 central Indiana Marsh Pharmacy locations. Since then, more than 74,000 prescription bottles have been collected.

IDEM, Indiana's pharmacists, educators, health care providers and waste managers are working in partnership to raise public awareness about the proper disposal of unwanted medicines. Hoosiers can find more information, including a list of local collection programs and a recycling database, on the Recycle Indiana website www.recycle.IN.gov.

GENERAL OVERSIGHT

Solid Waste Management Program

Although the number of landfills has decreased since the early 1990s, the average size of each has grown. In 2008, permitted operating solid waste landfills accounted for 5.7 square miles of the state's land area and had a combined capacity of 337 million tons. If disposal rates remain constant, landfill space is predicted to last until 2037.

Local solid waste management districts and communities are working together to offer collection locations and curbside pick-up programs to encourage recycling of paper, plastic, glass, steel and aluminum. Household hazardous waste (HHW) collections are also held in communities throughout the state, which helps the environment by preventing accidental releases of unwanted paints, cleaners, batteries, pesticides, motor oils, used oil filters and unwanted medicines.

Institutional Control Registry

IDEM developed the Risk Integrated System of Closure (RISC) to provide consistency in the closure of cleanup projects. Under RISC, an "institutional control" may be appropriate to prevent public exposure to harmful levels of contaminants at a property by restricting property use or access. The public can find the IDEM Institutional Controls Registry Report, which is a list of sites with institutional controls, on the IDEM website at www.idem.IN.gov/5959.htm.

CONCLUSION

IDEM's Office of Land Quality protects Indiana's soil and ground water by striving to make sure regulated facilities understand and are prepared to meet their environmental responsibilities. Along with educating and providing technical assistance to businesses and communities, IDEM's work to issue permits, conduct inspections, respond to accidental spills and oversee cleanups continues to foster marked improvement in the state's land quality each year.



IMPROVED WATER QUALITY

IDEM has worked hard to improve Indiana's water quality. New rules are in place to ensure that Hoosiers drink the highest quality water from their taps. Meanwhile, over 99 percent of the population served by community public water systems receives water that meets all state and federal requirements for drinking water. Initiatives such as the Nonpoint Source Grant program keep hundreds of thousands of pounds of phosphorus, nitrogen and sediment out of Indiana's waterways. Additionally, IDEM's work with combined sewer overflow (CSO) communities will prevent the discharge of billions of gallons of untreated sewage annually, as infrastructure projects are completed. Finally, the reduction of backlogged water quality permits ensures that facilities around the state are operating within current, more stringent water quality standards.

While IDEM is still learning more about the state of Indiana lakes and streams, the number of assessments of Hoosier waters is at an all-time high, providing vital information necessary to target projects and water quality improvement. Through grants and increasingly stringent permits, IDEM works with Hoosiers to improve the quality of our water.

NPDES PERMITTING

IDEM's Office of Water Quality (OWQ) is delegated by U.S. EPA to issue National Pollutant Discharge Elimination System (NPDES) permits. NPDES permits regulate the discharge of storm water and various types of wastewater by limiting the amount of pollution that can be in water discharged by a facility. These permits contain requirements on the treatment of wastewater before it is discharged to ensure that it meets strict standards that protect and improve water quality.

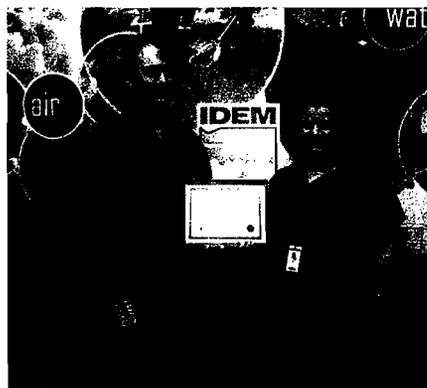
Backlog of NPDES Permits Dramatically Reduced

In 2005, IDEM had a backlog of 263 NPDES permits. Some had not been renewed for 20 years and had outdated requirements. Working aggressively, OWQ has issued 261 of the original 263 backlogged permits. The two remaining backlogged permits are being drafted and are scheduled to be issued in 2011.

In 2008, U.S. EPA recognized IDEM with a Certificate of Achievement "Gold Award," U.S. EPA's highest honor for meeting or exceeding goals for permit backlog reduction and issuance of priority permits. Indiana was one of only eight states to receive the honor.

Success Story: U.S. Steel permit

The U.S. Steel Corporation has operated an integrated steel mill facility in Gary, Indiana since 1909. Although NPDES permits are typically renewed every five years, the last renewal was issued in 1994, allowing the facility to operate under outdated requirements. That is why IDEM made it a priority to reissue what is the largest and most complex NPDES permit in Indiana. IDEM used the most up-to-date information about the facility, the nature of the discharges, and the condition



In 2008, U.S. EPA recognized IDEM's Office of Water Quality with a Gold Award. Pictured with the award are Jerry Dittmer and Beth Noel of IDEM's Water Permits Branch.

of the waterbodies to determine what kind of new requirements were necessary in this permit. After receiving extensive public input and working in concert with U.S. EPA, IDEM issued a renewal permit on January 22, 2010, that included new requirements that will ultimately protect and improve water quality. The water quality improvements at U.S. Steel, in conjunction with the dredging of the Grand Calumet River downstream from the facility, have resulted in measurable improvements in water quality and the return of various water dependent wildlife species to the river. Studies to fully document these improvements are scheduled to start in the near future.

COMBINED SEWER OVERFLOW COMMUNITIES

In 2005, a total of 108 communities with combined sewer systems were dumping raw sewage into Indiana's waters. Only one community had an IDEM-approved long term control plan (LTCP) to reduce discharges, and 12 had completed the separation of storm and sanitary sewers. The other communities were facing the challenge of meeting federal requirements to dramatically reduce discharges from combined sewers. Over the last six years, IDEM has made substantial progress in reviewing and approving long term control plans. Today, 104 communities have an enforceable agreement with IDEM to reduce discharges, and four communities continue to negotiate plans with U.S. EPA and IDEM.

As communities complete improvements to their systems, the volume of untreated discharges will be dramatically reduced. Estimates currently indicate that system-wide improvements over the next 20 years will reduce raw sewage discharges by over 30 billion gallons annually.

NONPOINT SOURCE PROGRAM AND TOTAL MAXIMUM DAILY LOADS

Where IDEM determines that water quality does not meet standards, or is impaired, the agency prepares a calculation, known as a Total Maximum Daily Load (TMDL), which identifies the maximum amount of a pollutant a waterbody can receive and still meet water quality standards. TMDLs are an important tool IDEM uses to determine what improvements need to be made to ensure that water quality meets strict standards designed to protect aquatic life and be fishable and swimmable. Since 2005, IDEM has completed 863 TMDLs on Indiana streams and has another 131 in progress.

Grant programs are another important tool IDEM uses to ensure lakes, rivers and streams meet high water quality standards. Since 2005, IDEM has awarded over \$21 million through two grant programs to fund projects to reduce nonpoint source pollution. Nonpoint source pollution results from land run-off, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification, when water moving across the landscape picks up contaminants such as oil, fertilizer, sediment and other materials. These locally-led projects prevent more than 500 million (500,000,000) pounds of sediment, 332,000 pounds of phosphorus, and 546,000 pounds of nitrogen from entering Indiana waters annually, according to modeled estimates. These reductions of pollutants are among the highest reductions in the Midwest.

Water quality improvement success stories have been documented in three watersheds, Big Walnut Creek, Pigeon Creek and Lower Clifty Creek.



Big Walnut Creek, in west central Indiana, was impaired with bacteria from livestock, leaking septic systems and wildlife. IDEM added three waterbody segments to Indiana's 1998 303(d) list, identifying the streams as impaired for *Escherichia coli* (*E. coli*) bacteria. After additional monitoring, IDEM added three more segments to the 303(d) list in 2004. Using Clean Water Act Section 319 funds, project partners installed best management practices and educated stakeholders about sound agricultural management throughout the watershed. Recent monitoring data show that the Big Walnut Creek segments meet water quality standards for bacteria, prompting IDEM to propose removing all six segments from the state's 2010 section 303(d) List of Impaired Waters. More information about Big Walnut Creek can be found at www.watersheds.IN.gov/files/watershed_success_epa_bigwalnut.pdf.

Pigeon Creek, in Southwest Indiana, was impaired for chlordane and other priority pollutants. Infiltration came from the use of these chemicals on agricultural lands with poor stream buffers and high historic soil loss. Indiana placed 32 miles of this waterbody on its 303(d) list in 1996, and again in 1998, based on fish tissue data. IDEM, working with other agencies, funded locally-led efforts to install best management practices, such as vegetated buffers and conservation tillage, and provided landowner education. These initiatives produced a measurable improvement in water quality. As a result, Indiana removed Pigeon Creek from the 303(d) list in 2002. More information can be found at www.watersheds.IN.gov/files/watershed_success_epa_pigeon.pdf.

Lower Clifty Creek, in southeastern Indiana, was impaired by bacteria from manure spreading, pasturing of livestock, wildlife, and leaking and failing septic systems. Based on data collected from water quality sampling, IDEM added one waterbody/segment of lower Clifty Creek to Indiana's Section 303(d) list for *E. coli* bacteria in 2002. Using Clean Water Act Section 319 funds, project partners educated stakeholders about sound agricultural management and implemented best management practices throughout the watershed. Recent monitoring data shows that the lower Clifty Creek segment meets water quality standards for bacteria, resulting in IDEM proposing to remove the segment from the state's 2010 section 303(d) List of Impaired Waters. More information can be found at www.watersheds.IN.gov/files/watershed_success_epa_cliftycreek.pdf.

To educate Hoosiers on the correlation between human activity and effect on water quality, IDEM launched the "Stop the Rubber Duckies" campaign in 2009. The capstone of the campaign was the creation of a one-stop shop website, www.watersheds.IN.gov, which offers information on nonpoint source pollution, what is being done to address it, and ways citizens can be part of the solution. Local officials, volunteer groups and individuals who are ready to get involved in local watershed management can link to numerous resources, including a toolkits, grant information and reports on water quality in their communities. With over 350 pages of information on watersheds and nonpoint source pollution, this site is the most comprehensive resource available on watersheds and nonpoint source pollution.

BLUE GREEN ALGAE INITIATIVE

Cyanobacteria or blue-green algae are a common constituent of algal communities in lakes and rivers. Many common cyanobacteria are known to produce potent toxins under certain

environmental conditions, particularly during blooms, die-offs and other stressful conditions. These toxins can affect the liver, nervous system, or skin. They are known to cause illness in humans and there are numerous documented cases of cyanotoxin deaths in dogs and livestock. Toxic cyanobacteria are now recognized as a potentially serious threat to human health. Large cyanobacteria communities can also cause water quality deterioration, including depleted dissolved oxygen levels, fish kills, as well as taste and odor problems in drinking water. The World Health Organization (WHO) has taken a leadership role in establishing cyanotoxin guidance.

IDEM has developed a targeted monitoring pilot program for cyanobacteria and the microcystin toxin. In 2010, five Department of Natural Resources (DNR) swimming beaches were monitored on a regular basis from July through September. In summer 2011, the number will be increased to 11. Samples are analyzed and results are communicated to DNR to assist them in educating area beach-goers. Results are posted at www.algae.IN.gov. The website serves as a one-stop resource for test results for the lakes and reservoirs sampled and provides other information and resources about cyanobacteria.

GROUND WATER MONITORING NETWORK

In 2008, IDEM began collecting untreated water samples from ground water and drinking water wells statewide as part of a Ground Water Monitoring Network (GWMN). The pilot project plans on sampling over 300 public and residential wells on an annual basis. The purpose of the project is to determine a baseline of ground water quality statewide and assess the overall ground water quality of Indiana. The GWMN also fills in the hydrologic cycle gaps between current surface water monitoring strategies and those completed in the late 1990s.

The project aims to resample each well on an annual basis for a number of different parameters. Since 2008, over 600 water samples have been collected and analyzed. Annual sampling will give Indiana an opportunity to explore trend analysis, seasonal variations and hydrogeological setting's relationship to sensitivity. Long-term, the information gathered will be incorporated into the Indiana Water Quality Monitoring Strategy as a component of the integrated water quality strategy.

DOCUMENTING IMPROVEMENTS IN INDIANA'S WATER QUALITY

Because of the way IDEM monitors waterbodies, it is easier to document problems than it is to document improvements in water quality. Our list of impaired waters grows as more streams are sampled each year. Yet, there have been many improvements. For example, the levels of polychlorinated biphenyls (PCBs), dieldrin, DDT and chlordane in Indiana fish have been steadily decreasing since 1983.

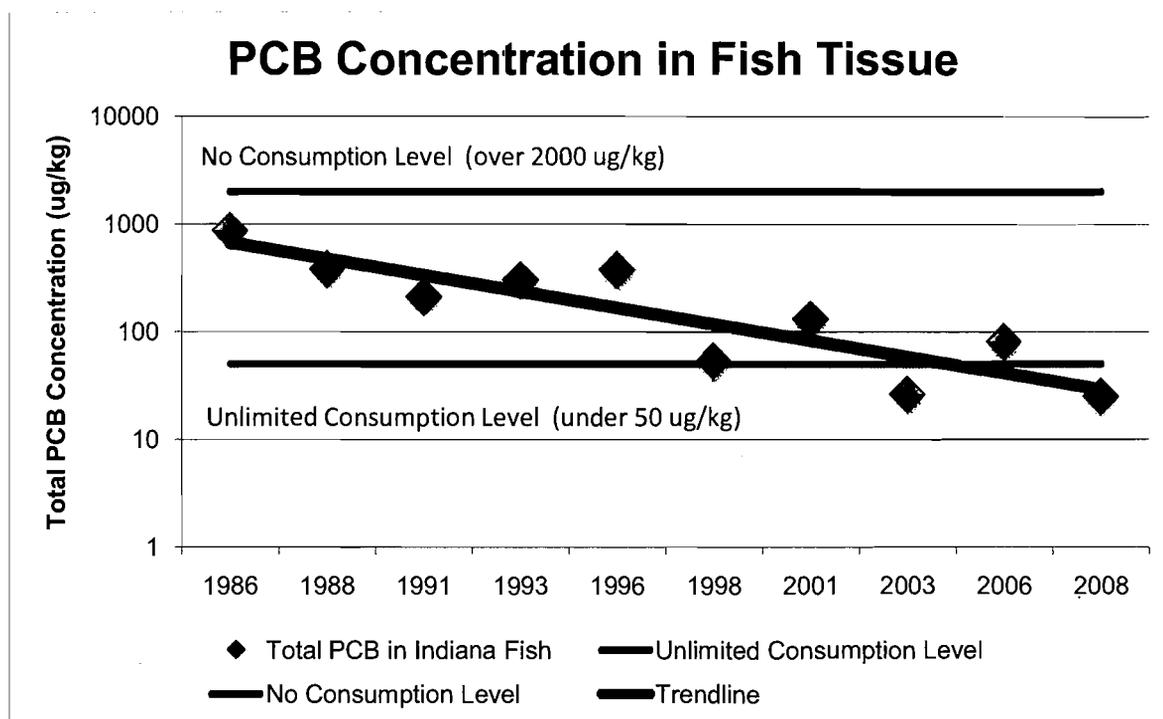
Polychlorinated Biphenyls (PCBs)

PCBs have been used as coolants and lubricants in transformers, capacitors and other electrical equipment because they don't burn easily and are good insulators. Products made before 1977 that may contain PCBs include old fluorescent lighting fixtures and electrical devices containing PCB capacitors, and old microscope and hydraulic oils. PCBs also have been used as plasticizers in paints and plastics, inks, copy paper and adhesives.



Although PCBs were banned in 1979, they are persistent in fish, and as a result, examining fish tissue is a good indicator of PCB levels in the environment. PCBs remain a cause for concern as they are the reason for some fish consumption advisories in specific areas. There continue to be a number of “hot spots” in Indiana where fish still have high concentrations of PCBs, but even these concentrations are decreasing. Overall levels of PCBs in Indiana fish have been slowly decreasing since the discontinuation of PCB use.

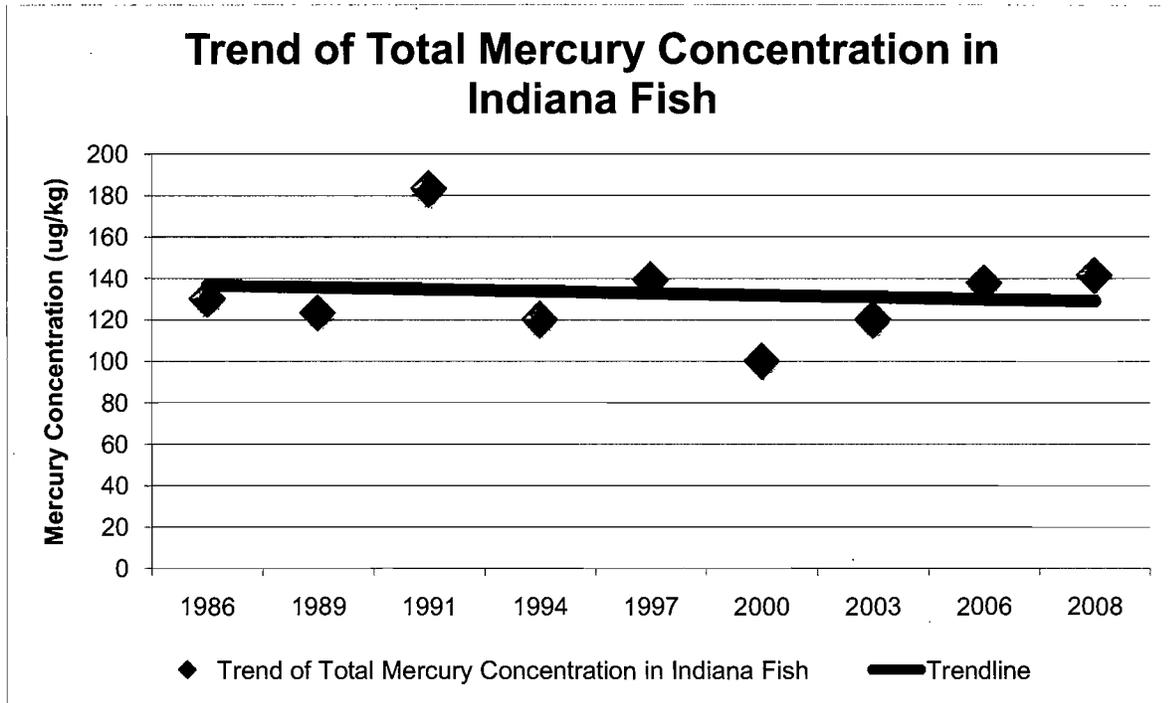
Figure 5. PCB concentrations in Fish Tissue



Mercury

Although the levels of PCBs and pesticides have decreased in fish over time, one challenge remains: mercury. Mercury is an element of the earth and is found everywhere in the environment. Most human mercury exposure is through consumption of fish, and it magnifies up the food chain. IDEM has found Mercury in 90 percent of all fish tissues sampled. Predatory fish, such as largemouth bass and walleye, have been found to have the highest concentration of mercury. Small minnows and sunfish have very low levels of mercury compared with predators. Mercury is a major reason for the issuance of fish consumption advisories in Indiana. In spite of significant reductions in both air emission sources and direct wastewater discharges, mercury concentrations in fish do not appear to be decreasing.

Figure 6. Trend of Total Mercury Concentration in Indiana Fish



Dieldrin, DDT and Chlordane

Dieldrin, DDT and chlordane caused the issuance of fish consumption advisories in the past. However, concentrations of these chemicals have lowered to levels that currently do not trigger fish consumption advisories.

Dieldrin is a pesticide used as an insecticide for soil-dwelling pests, termite control, and in mothproofing. It was phased out of use between 1974 and 1987. Like PCBs, dieldrin is persistent in the environment and is highly bioaccumulative. Although this pesticide still continues to be detected in Indiana fish, concentrations have decreased greatly and no longer drive any advisories against fish consumption.

DDT is a pesticide that was once widely used to control insects on agricultural crops and insects that carry diseases, like malaria and typhus. DDT is used now in only a few countries in some tropical regions to control malaria. After 1972, the use of DDT was no longer permitted in the United States. Like Dieldrin and PCBs, DDT is highly bioaccumulative. While levels of DDTs in Indiana waters once caused the issuance of fish consumption advisories, DDT is no longer measured at levels that would trigger advisories in Indiana fish. The state still monitors for DDT, but sampling has shown steady reductions in concentrations of DDT over time.

Chlordane is a colorless, odorless, viscous liquid that was formerly used as an insecticide for crops, lawns and termite control. Because it can damage the liver and nervous system and remains as a toxin in the environment for many years, chlordane was banned in 1988. Chlordane



is bioaccumulative and is widely detected in Indiana fish. Although chlordane was the cause of fish consumption advisories in the past, concentrations in fish have declined to such a level that this pesticide is no longer detected at levels that would trigger fish consumption advisories.

GREAT LAKES COMPACT

The Great Lakes contain 95 percent of North America's fresh water. In 2007, Governor Daniels signed Senate Enrolled Act 45, making Indiana the first state to ratify the Great Lakes Compact. The goals of the Great Lakes Compact include the prevention of diversion of water from the Great Lakes, fostering economic development in the region, and improving decision-making for future Great Lakes use. The Great Lakes Compact has since been ratified by all eight member states, and was signed into law in 2008 by President George W. Bush.

GRAND CALUMET RIVER DREDGING PROJECT

Located in the northwestern corner of the Hoosier state, the Grand Calumet River stands as a testament to overall improvements in the state's water quality. Industrial development in the Calumet River area began during the 1870s, and by 1890, the west reach of the Grand Calumet River was heavily polluted. Sediment in the Grand Calumet River was contaminated from industrial and municipal discharges long before today's regulations were imposed. These legacy contaminants extend 20 feet deep and continue to restrict industrial, commercial and recreational uses. Additionally, water quality issues have made it nearly impossible for aquatic life to use the Grand Calumet River as a habitat.

In 1987, the International Joint Commission (IJC) listed the Grand Calumet River and Indiana Harbor Ship Canal as an area of concern, or a severely degraded site on the Great Lakes. The IJC is a United States and Canadian-run entity that works to protect shared North American water resources. Two years later, IDEM completed a Phase I Remedial Action Plan to identify the problems in the Areas of Concern, finding that all 14 of the designated beneficial uses for surface water were considered impaired.

In 1998, a group of industries expressed interest in working with Indiana's Natural Resources Trustees to complete a Natural Resource Damage Assessment (NRDA). Eventually, a settlement of \$60 million was reached, with eight industries contributing to the cleanup of legacy contaminants. The settlement was one of the largest NRDA hazardous waste settlements in history.

Efforts have been underway for the past several decades to limit or remove sources of pollutants to the Grand Calumet River ecosystem. While point source pollutants have been greatly reduced, the legacy contaminants found in the sediment continue to affect water quality.

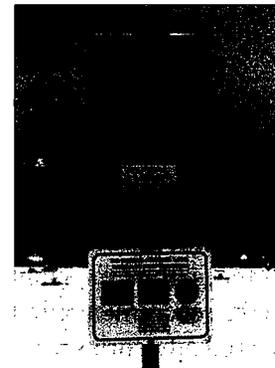
In 2008, the West Branch Grand Calumet River Sediment Remediation project was announced, and as its goal, the removal of 131,000 cubic yards of sediment from a one mile stretch of the Grand Calumet River. It would be followed by adding a reactive cap which would seal off remaining sediment contaminants. Part of this dredging project was completed in 2010, with the remainder scheduled for completion in 2011.

IDEM continues to spearhead remediation projects in the Grand Calumet River with the hope that one day the river will be able to support diverse aquatic life. River dredging and capping projects are underway: construction is scheduled to start in 25 acres of Roxana Marsh in 2011; an additional project in part of the East Branch Grand Calumet River will include over 80 acres of wetlands; and a segment in the West Branch of the Grand Calumet River is also under consideration.

BEACHES PROGRAM

The Beaches Environmental Assessment and Coastal Health Act (BEACH Act) requires states, tribes and territories to identify their coastal recreation waters and to report on monitoring activities at those beaches to reduce the risk of illness caused by *E.coli*. Indiana has one of the few BEACH programs that is funded to sample coastal beaches a minimum of three days per week.

Monitoring data is available online to allow beachgoers to access advisories or closures at particular beaches before they leave the house. Located online at www.idem.IN.gov/beaches, the public can choose a county and beach to see daily water testing results, advisory and closure history, whether a beach is open or closed that day, and general information for participating beaches.



In 2008, Northwest Indiana's Great Lakes BEACH Program created and tested new, improved signage to indicate when water quality is good, when a warning is in effect and when swimming is not permitted due to high *E. coli* levels. The pilot project received positive feedback, and in the summer of 2009, new signs were installed at all participating beaches.

IDEM and IN.gov strive to enhance services and increase the public's access to useful information through new technology. In March 2011, the agencies launched a mobile alert system to notify beach-goers of beach conditions and closings due to *E. coli*. The mobile app also allows users to customize the information they receive and subscribe to specific alerts pertaining to their community or area of the state.

Indiana BeachesAlert monitors beach conditions and alerts at public and private beaches in Lake, Porter, LaPorte and Kosciusko counties. The new service supplements the existing online BeachGuard System, which compiles beaches' water quality data from mid-May through mid-September.

ASSESSMENT

The Clean Water Act requires Indiana to assess the condition of its lakes, rivers and streams. This assessment is critical to provide IDEM and the public with an understanding of local water quality. Where the assessments reveal that a waterbody is impaired for a specific pollutant, the agency and the public have a better understanding of how to improve water quality. Where the assessments reveal that a water body is of high quality, IDEM and the public have information that allows us to protect the waters from becoming polluted. The overall goal of the program is



to gather information so that IDEM can make good decisions about how to meet the strict standards that protect fish and ensure safe recreational use of the water.

Based on the proposed 2010 303(d) List of Impaired Waters, IDEM has assessed over 33,473 stream miles, which is over 83 percent of the streams in Indiana. Prior to 2005, only 18,400 stream miles had been assessed. Out of the assessed streams, 52.8 percent of the streams were impaired, and 47.2 percent met strict water quality standards.

Results of the assessments help IDEM determine permit requirements, where to focus grant expenditures, and make recommendations for water-related advisories.

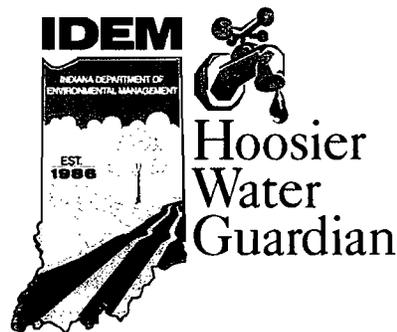


OWQ staffers Todd Davis and Jim Stahl conduct boat safety training for the assessment team in 2008.

HOOSIER WATER GUARDIAN

In 2007, Indiana's Ground Water Guardian team developed a voluntary program to recognize those communities that promote wellhead protection and the protection of ground water as their drinking water source.

All Hoosier Water Guardian award winners must demonstrate that they have gone or will go above and beyond the minimum state requirements. Since 2008, recognition has been awarded to 20 communities.



NEW WATER RULES

IDEM proposed several rules which were passed by the Water Pollution Control board in 2009 to ensure Hoosiers continue to drink safe and clean water.

Ground Water Rule

This rule affects public water facilities that use ground water, ensuring that systems do not contain fecal contamination that can contain disease-causing pathogens. The rule requires public water systems to sample the ground water and requires sanitary surveys of the systems to evaluate critical elements of the system, identify weaknesses in the system and take corrective action.

Stage 2 Disinfectants and Disinfection By-Products Rule

While disinfection of drinking water has played a major role in reducing waterborne epidemics, such as typhoid and cholera, disinfectants react with naturally-occurring materials in water to

form byproducts that can pose health risks. The Stage 2 Disinfectants and Disinfection By-Products Rule requires drinking water systems to evaluate their systems to determine whether chemicals were formed as a result of disinfection and take action to ensure those byproducts are reduced.

Long Term 2 (LT2) Enhanced Surface Water Treatment Rule

The purpose of this rule is to protect people from disease-causing organisms in drinking water. This rule requires surface water systems serving 10,000 or more people to test levels of *Cryptosporidium*, a protozoan parasite, in their source water. It also requires surface water systems serving less than 10,000 people to test for *E. coli*, and if levels are high, to also test for *Cryptosporidium*. If *Cryptosporidium* is found in the source water, additional treatment is required. Treatment options include additional filtration and use of alternative disinfectants, including ultraviolet disinfection, ozone or chlorine dioxide.

Ground Water Quality Standards Numeric Criterion for Arsenic Rule

This rule changed Indiana's ground water quality standard for arsenic to match the federal maximum contaminant level. Arsenic occurs naturally in rocks and soil, water, air, and plants and animals. High arsenic levels can also come from agricultural and industrial practices. It can enter drinking water through the ground or as run-off into surface water sources. Human exposure to arsenic can cause both short-term and long-term health effects.

SUCCESSFUL PARTNERSHIPS

Garden City Trailer Park

Garden City Trailer Park, located near Richmond, is home to approximately 300 residents. The area historically had high arsenic levels in the residential wells, far exceeding the drinking water quality standard.

Faced with eviction and the park's closure, residents worked with IDEM and the Indiana Finance Authority (IFA) to pursue a course of action.

In 2009, IFA determined that it could provide approximately \$1 million to tie the residents into the Richmond-based Indiana American Drinking Water Utility, which volunteered to complete the construction portion of the project.

Groundbreaking took place on December 8, 2009, and now residents of Garden City Trailer Park enjoy clean and safe drinking water.



Officials break ground in December 2009 on the new water main to Garden City Trailer Park in Richmond.



Volunteer Mitigation Map

Organizations that disturb wetlands, streams and lakes through construction or other activities are required to restore or create new wetlands or waterbodies to offset the impact. This is called compensatory mitigation. Finding appropriate mitigation sites is a critical component to successfully replacing wetlands and often takes a great deal of time and expertise.

A new Web application, known as the Volunteer Mitigation Map, was created to help connect landowners willing to provide land and organizations that could benefit from mitigation locations. The application was created through a partnership between IDEM, the Indiana Department of Transportation, the Indiana Department of Natural Resources, and the Indiana Department of Homeland Security. The public portal can be found at <http://idemmaps.idem.IN.gov/apps/MitigationVolunteer/>.

CONCLUSION

IDEM's Office of Water Quality is working toward the future when all of Indiana's waters will be safe for swimming and fishing, and critical ground water will be suitable for all uses, including drinking. Through continued assessment and adherence to water quality health standards, IDEM is working to further water protection and pollution prevention.

Initiatives, such as the nonpoint source grant program, keep millions of pounds of phosphorus, nitrogen and sediment out of Indiana's waterways. IDEM's work with CSO communities will prevent the discharge of billions of gallons of untreated sewage annually as infrastructure projects are completed. New rules have helped strengthen the safety of Indiana's drinking water.

Meanwhile, over 99 percent of Hoosiers served by community public water systems receive water that meets all state and federal requirements for drinking water. Finally, the reduction of a backlog of water quality permits ensures that facilities around the state are operating within current, more stringent water quality standards.

INDIANA BROWNFIELDS PROGRAM AND INDIANA STATE REVOLVING FUND LOAN PROGRAM

In May 2005, several state organizations, including the Indiana Development Finance Authority, the State Office Building Commission, the Indiana Transportation Finance Authority, the Recreational Development Commission, the State Revolving Fund Programs, and the Indiana Brownfields Program, were consolidated into a new and separate entity called the Indiana Finance Authority (IFA). The Indiana Health and Educational Facilities Finance Authority was merged into the IFA in July 2007.

The IFA issues revenue bonds to finance or refinance the cost of acquiring, building and equipping structures for state use. This includes state office buildings, garages, highways, bridges, airport facilities, correctional facilities, state hospitals and recreational facilities related to state parks. The IFA also manages the Wastewater and Drinking Water State Revolving Fund (SRF) Loan Programs and the Indiana Brownfields Program. Through these two programs, IDEM project managers, project engineers, and drinking water and wastewater administrators work in partnership with IFA staff to attract new businesses, create more jobs and improve the health of Hoosiers, a priority of Governor Daniels. Since 2005, both the brownfields and SRF programs have been responsible for significant achievements and partnerships.

Since the inception of the Indiana Brownfields Program through the end of 2010, more than \$39 million in grants and loans have been used to assist in the assessment, remediation and redevelopment of properties throughout the state. The SRF has provided over \$2.8 billion in loans for 374 wastewater projects and 165 drinking water projects.

SUCCESSFUL PARTNERSHIPS—INDIANA BROWNFIELDS PROGRAM

Former Dana Weatherhead Facility, Angola

Sixteen years ago, the Dana automotive parts foundry and machining plant in Angola closed. Because soil on the site was contaminated with a chlorinated solvent, IDEM required Dana to operate an on-site ground water treatment system to keep ground water from contaminating the city's water supply. Dana filed for bankruptcy in 2006, and once it emerged from bankruptcy reorganization, Dana argued that it no longer had a legal responsibility for cleaning up the site or for operating the ground water treatment system. Soon thereafter, Univertical Corp., a company that manufactures materials for the metal-finishing industry, took over the former Dana site.

While Univertical did not cause the contamination, it faced daunting cleanup costs that would have forced the company to relocate if not for public-private participation in the cleanup effort. The bankruptcy court approved a settlement that required Dana to make restitution to IDEM. Based on the settlement, the State assumed responsibility for the treatment system. In August, 2009, the city of Angola agreed to pay \$1 million toward cleanup. Steuben County is contributing \$1 million and Univertical another \$1 million. IFA offered the city a low-interest \$3.5 million loan for the remainder of the cleanup costs. IFA is also administering the contracting process to continue site remediation, as well as handling the financial management of the settlement proceeds. More information about the Indiana Brownfields Program can be found online at <http://www.in.gov/ifa/brownfields>.



SUCCESSFUL PARTNERSHIPS—STATE REVOLVING FUND LOAN PROGRAMS

Wastewater Treatment Plant, Peru

The City of Peru's wastewater treatment plant periodically exceeds its National Pollutant Discharge Elimination System (NPDES) permit limitations. This is due to several deficiencies within the system, both design-related and operational. Contributing factors include the age of facilities, individual processes and equipment that have exceeded their useful service, and insufficient hydraulic and organic capacity to meet future requirements. A proposed project will provide necessary upgrades and improvements to the City of Peru's treatment plant. Peru's subsidized loan of \$5.7 million, which includes funding from the American Recovery and Reinvestment Act, will provide a savings to the city of \$7.78 million over the life of the loan.

More information about the State Revolving Fund Loan program can be found online at www.idem.IN.gov/4103.htm#srf.

POLLUTION PREVENTION AND TECHNICAL ASSISTANCE

The Office of Pollution Prevention and Technical Assistance (OPPTA), now integrated within the newly formed Office of Compliance Services (OCS), provides confidential assistance, funding for source reduction, pollution prevention, and recycling initiatives and community outreach and education to businesses, communities and schools.

Over the past four years, through participation in various IDEM programs, businesses and communities have reported activities and projects that prevented approximately:

- 7.3 million pounds of solid waste;
- 219.5 million pounds of hazardous waste;
- 81 million pounds of pollution from entering Indiana waters;
- 3.1 billion pounds of pollution from entering the air;
- 2.3 billion gallons of water conserved; and,
- 831 million pounds of waste diverted from entering landfills.

Staff is committed to finding ways to help others voluntarily prevent pollution and understand, achieve and exceed environmental responsibilities through confidential technical assistance, education and financial support.

POLLUTION PREVENTION BRANCH

Boating Infrastructure and Clean Vessel Act Grant Programs

Proper sewage management is an important step to keeping Indiana's waters safe. IDEM partners with the U.S. Fish and Wildlife service to reimburse public and private marinas in two separate programs: the Boating Infrastructure Grant Program (BIGP) and the Clean Vessel Act Grant Program (CVAGP). The programs have provided \$600,000 in grants, which have prevented seven million pounds of waste from entering Indiana waters in the past six years. For more information on the CVAGP, visit www.IN.gov/idem/5222.htm, and for more information on BIGP, visit www.IN.gov/idem/5223.htm.

CLEAN Community Challenge

The CLEAN Community Challenge is a voluntary recognition program for Indiana communities that make significant commitments to environmental management. CLEAN helps communities take steps to plan, develop and implement a Quality of Life Plan, which focuses on reducing the potential environmental impacts associated with municipal operations.

As of April, 2011, there are 17 CLEAN participants. Through their environmental initiatives, members have reported reducing air pollution by over 1.25 million pounds. In addition, members have decreased energy use by more than 1 million kilowatt hours, composted over 22.8 million pounds of leaves, collected approximately 212 million pounds of recyclables and planted over 200 trees. More information about CLEAN can be found at www.IN.gov/idem/4135.htm.





Environmental Stewardship Program

In 2006, IDEM created the Environmental Stewardship Program (ESP), a performance-based recognition program for Indiana businesses. The 49 participating businesses have voluntarily committed to maintaining compliance with environmental regulations and implementing at least one environmental improvement initiative each year.



Environmental projects have resulted in significant reductions, for example:

- water use by 91 million gallons, comparable to 139 Olympic-sized swimming pools;
- electricity use by 21.5 million kilowatt hours, comparable to the amount of electricity needed to run 8,308 residential air conditioners for one year;
- natural gas consumption by nearly 9,616 therms, which is like eliminating air pollution from 2,003 propane cylinders used for home barbeques;
- waste by 7.2 million pounds, equivalent to the approximate weight of 1800 automobiles;
- hazardous waste by 185,000 pounds, comparable to the weight of 18 Asian elephants; and,
- recycled over 4.4 million pounds of materials.



For more details, visit IDEM's website at www.IN.gov/idem/4132.htm.

IDEM Commissioner Thomas Easterly (left) presented an ESP flag to National Office Furniture staff in 2009.

Indiana Pollution Prevention Grant Program

The Indiana Pollution Prevention Grant Program has awarded 11 grants totaling \$573,155 since 2008. These grants have supported an array of pollution prevention projects. Projects funded by the Pollution Prevention Grant Program have resulted in the following reductions per year:

- 200,000 kilowatt hours of electricity;
- 66,500 pounds of hazardous waste;
- One million British Thermal Units (BTUs) of natural gas;
- 37 million pounds of solid waste; and,
- over 21.5 million gallons of water.

In 2009, IDEM was awarded \$160,000 in federal grants to reduce toxics in Indiana through pollution prevention. Businesses or communities that use chemicals listed on the Resource Conservation Challenge priority chemical list or regional priority list are eligible to apply for

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grants to reduce toxic chemical usage. More information about Pollution Prevention grants can be found at www.IN.gov/idem/5224.htm.

Pollution Prevention Opportunity Assessments

OPPTA offers free, confidential, on-site pollution prevention opportunity assessments to Indiana manufacturers. Since 2005, OPPTA assessments have helped manufacturers reduce natural resource usage and harmful emissions. Some of these reductions include:

- 137,400 gallons of hazardous waste;
- 30,500 pounds of solid waste;
- 73.9 million gallons of water and wastewater;
- 484,680 pounds of air pollution;
- 3.59 million kilowatt hours of electricity; and,
- 75,000 therms of natural gas.

More information about the assessments can be found at www.IN.gov/idem/5298.htm.

Governor's Award for Environmental Excellence



The Governor's Award for Environmental Excellence is open to all Indiana facilities, state and local units of government, individuals and technical assistance organizations that implement outstanding environmental

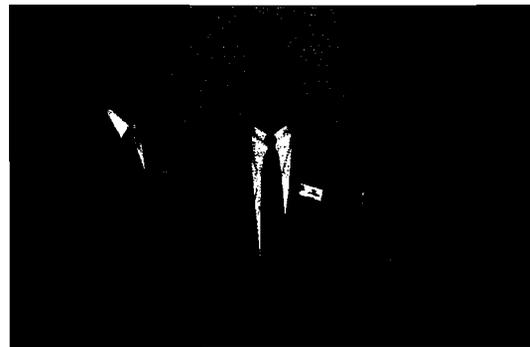
strategies into their operations and decision-making processes. Since 2008, there have been 48 recipients of the Governor's Awards.

More information about the Governor's Awards for Environmental Excellence program can be found on the IDEM website at www.IN.gov/idem/5147.htm.

Indiana Partners for Pollution Prevention

The Partners for Pollution Prevention is an organization of Indiana industries and businesses that are interested in pollution prevention (P2) and the financial and environmental benefits P2 projects can bring. The Partners for Pollution Prevention provide a forum where Indiana businesses can network and exchange ideas about P2 experiences and discuss how P2 fits into current and future IDEM programs.

More information about the Partners for Pollution Prevention can be found at www.IN.gov/idem/4129.htm.



Bill Maloney (left) and Gary Maloney (right), Jeffersonville-based Nu-Yale Cleaners, received a 2009 Indiana Governor's Award for Environmental Excellence from IDEM Assistant Commissioner Rick Bossingham (center).





SOURCE REDUCTION AND RECYCLING BRANCH

As a result of the recent economic crisis, grants and loans were suspended in December 2008, including the Recycling Promotion Assistance Fund, Solid Waste Fund and Waste Tire Management Fund.

Recycling Market Development Program

Beginning in 2005, IDEM funded 90 projects totaling over \$6.3 million through the grants and loan programs. OPPTA will continue to seek ways to promote the valuable economic impact that the recycling and reuse industry has on the state. For more information on OPPTA's waste reduction efforts, visit www.recycle.IN.gov.

Community Recycling Grant Programs

IDEM uses \$1.2 million from the Solid Waste Management Fund each year for the Community Recycling Grant Programs (CRGPs), which encourages education and outreach programs. Since 2005, CRGPs funded 436 recycling projects totaling \$5.9 million and diverted approximately 316 million pounds of waste from landfills.

e-Waste

In July 2009, the Indiana Electronic Waste Program law was enacted. During the first year of the program, 65 manufacturers registered with IDEM, with total recycling goals of almost 23 million pounds of e-Waste. More than 100 collectors and 52 recyclers also registered to participate in the program, providing households, public schools and small businesses with collection and recycling services at more than 300 locations around the state.

COMPLIANCE AND TECHNICAL ASSISTANCE PROGRAM

The Compliance and Technical Assistance Program (CTAP) is a statutorily-authorized small business assistance program. Since 2005, thousands of Hoosiers have contacted CTAP for free, confidential assistance in achieving compliance with environmental regulations. CTAP has educated thousands of businesses through workshops, presentations and on-site visits. CTAP does not impose obligations on its customers and is bound by Indiana law to maintain confidentiality. More information about CTAP can be found at www.IN.gov/idem/4108.htm.

CTAP's Quality Assurance Guarantee

The CTAP Quality Assurance Guarantee means that IDEM stands behind CTAP's compliance assistance. The guarantee assures customers that IDEM will not issue a Notice of Violation assessing a gravity-based penalty against a regulated entity that has sought out, received and relied upon CTAP's written compliance assistance prior to the alleged violation.

COMMUNITY ENVIRONMENTAL HEALTH AND EDUCATION Five Star Environmental Recognition Program for Child Care Facilities



Over 100 child care facilities reaching an estimated 2,550 children have participated in IDEM's Five Star Environmental Recognition Program for Child Care Facilities. IDEM developed the Five Star Program to help parents and child care facility leaders learn about environmental health and safety threats that may affect children.

Applicants are evaluated based on their efforts to reduce children's exposure to mercury, lead, carbon monoxide and other hazards.

Facilities have also started recycling programs, developed formal written plans for chemical management, made efforts to purchase items made with recycled content material and reduced energy usage and vehicle idling.

The Five Star Program is the first of its kind in the nation and winner of the Innovations Award from the Council of State Governments.

More information about the Five Star Program can be found at www.IN.gov/idem/4413.htm.

Green Steps for Schools

On the heels of the Five Star Program's success, IDEM created a similar initiative for schools. Additional school-related threats such as lab chemical storage and school bus idling are addressed. The Green Steps for Schools program rolled out in 2007 with the mailing of a Green Steps Tool Kit to all school systems in Indiana. The kit is available on-line at www.IN.gov/idem/4123.htm.

Environmental Education

Environmental outreach to young students has been a popular addition to school programming. From April 2008 through April 2011, IDEM staff educated over 56,000 students about careers in the environmental field and how they can protect the environment at home and school. Students spend time discussing environmental topics including air, land, water quality and recycling. Curriculum and information for teachers and students is available online at www.IN.gov/idem/4091.htm.

HOOSIERS CARE PARTNERSHIP

Hoosiers Care is a partnership between IDEM, the Indiana State Department of Agriculture, the Indiana Office of Community and Rural Affairs, the Indiana Office of Energy, the Indiana Office of Utility Consumer Counselor, and the Indiana Housing and Community Development Authority.



The program works to educate individuals statewide on small steps that can be taken to promote a cleaner and healthier environment. Since the Hoosiers-Care initiative debuted at the Indiana State Fair in 2008, more than 6,500 people from 89 of 92 Indiana counties have taken the Hoosiers Care pledge. The Hoosiers Care website is located at www.HoosiersCare.IN.gov.



ADMINISTRATIVE ACCOMPLISHMENTS

In 2005, Commissioner Thomas Easterly created an internal “Task Force for Streamlining and Efficiency” to review processes and make recommendations to help the agency function in the most consistent and efficient manner possible. The result: internal efficiencies were identified, best management practices were carefully considered and implemented, and numerous processes were re-evaluated in order to determine the best use of taxpayer dollars. Important administrative changes have resulted in more efficient internal processes and significant cost-savings, beginning with the upgrading of internal fiscal systems, and a streamlining of IDEM’s administrative foundation. Partnering with other state agencies has also resulted in being able to do more with less.

FISCAL RESPONSIBILITIES

By centralizing the agency’s grant programs, IDEM is better able to focus the receipt and distribution of grants for core initiatives. This has allowed the agency to more efficiently coordinate with federal partners, and resulted in more effective use of grant dollars.

Additionally, IDEM created and implemented a program for collecting outstanding debt. With help from program staff, the accounts receivable team and the Attorney General’s Office, IDEM implemented a mechanism to track debtors and has successfully collected in excess of \$1 million owed to the state.

STREAMLINING OF IDEM’S ADMINISTRATIVE FOUNDATION

Within the agency, numerous re-organization initiatives were implemented to increase efficiency:

- Vehicle fleet coordinator positions were created, and the agency fleet was reduced by 32 percent;
- A grants coordinator position was created, and all grant information was placed on the agency website; and,
- Over 75 agency fact sheets were created or modified to better inform the public.

Tools for Environmental Management and Protection Organizations

Implementation of the Tools for Environmental Management and Protection Organizations (TEMPO) database system allows IDEM to integrate environmental data management functions across several programs. IDEM staff use TEMPO as a data tracking and communications tool.

Digital Inspector

Implementation of the Digital Inspector program allows IDEM’s compliance staff to complete inspection forms while at a regulated facility. Before leaving the facility, inspectors can create, transmit and print a copy of the inspection report. In 2008, the digital inspector program won a national innovation award from the Environmental Council of States (ECOS).

IDEM Extranet

The IDEM Extranet website serves as an official internal communication tool for IDEM staff.

OUTREACH PUBLICATIONS

Informational Brochures

Agency publications have been created and revised to serve as a resource to anyone who is interested in learning more about IDEM's programs and guidelines. IDEM created a Print-on-Demand system of brochure procurement in 2010, available online at www.idem.IN.gov/5674.htm.

Agency Publications

These agency publications were created or revised and contain specific, targeted information.

Guide for Citizen Participation - www.idem.IN.gov/5803.htm

The Guide for Citizen Participation informs Hoosiers about IDEM's role as Indiana's environmental agency while providing guidance as to how to take part in the decision-making process. The guide describes how rules are made, how the permit process works and how to learn about hearings, meetings and public comment periods.

Indiana Auto Salvage Manual - www.idem.IN.gov/files/auto_salvage_manual.pdf

This manual provides the auto salvage sector with concise, comprehensive environmental regulatory information in an easy-to-use format. This manual contains information concerning the various environmental rules that apply to auto salvage facilities.

Indiana Small Business Guide to Environmental, Safety and Health Regulations - www.idem.IN.gov/5556.htm

This guide can help small businesses understand and comply with regulations that apply to their operations. The guide provides an overview of state laws in a format that offers easy access to quick answers.

Indiana Storm Water Quality Manual - www.idem.IN.gov/4899.htm

This manual provides guidelines and specific storm water quality measures for controlling soil erosion, controlling nonpoint source pollution and the management and treatment of pollutants associated with post-construction land uses.

Permit Guide - www.idem.IN.gov/5881.htm

The IDEM Permit Guide provides basic information about the approvals IDEM issues for the construction, expansion and operation of facilities that must manage air emissions, solid or hazardous waste, drinking water, wastewater and wetlands.

Regional Sewer District Users Guide - www.idem.IN.gov/rsd

This guide was created to help citizens and local governments understand more about the regional district creation process and the positive impact these districts can have on human health and the environment.



Waterways Permitting Handbook - www.wetlands.IN.gov

This handbook is a guide to the permit process for activities that affect Indiana's wetlands or other regulated waters, including lakes, rivers, streams and ponds. It provides general information concerning the legal requirements that apply when a person wishes to engage in activities that will impact or affect Hoosier waters.

ONLINE SERVICES

IDEM makes extensive use of the electronic dissemination of information. IDEM implemented a major overhaul of its website, created an internal Extranet system for staff communications, and implemented Webinars for training.

IDEM Website - www.idem.IN.gov

The IDEM website offers essential functions and resources for all sectors of the public. It allows public access to electronic documents, program information and essential electronic links.

e-Services Portal - www.idem.IN.gov/5674.htm

IDEM created an e-Services portal on the agency's website at www.idem.IN.gov/5674.htm. Three major components comprise IDEM's e-Services: the Regulatory Services Portal, Virtual File Cabinet, LEADS[®] and Community Right to Know.

Regulatory Services Portal - www.idem.IN.gov/5964.htm

The Regulatory Services Portal (RSP) allows IDEM customers to submit data and information required by law, permit or regulatory requirement through a database system.

Virtual File Cabinet - <http://12.186.81.89/Pages/Public/Search.aspx>

The Virtual File Cabinet (VFC) offers instant access to public records from any computer. With over 65 million public documents available online, IDEM's VFC is available 24 hours per day. The VFC won a 2009 national innovation award from the Environmental Council of the States (ECOS).

Leading Environmental Analysis and Display System (LEADS[®]) - www.IN.gov/idem/airfacts/

The LEADS site provides access to near real-time data from Indiana's continuous air quality monitoring network online.

Community Right to Know - www.idem.IN.gov/5285.htm

IDEM implemented a new tool that makes it easier for 5,000 Indiana businesses to file online reports on hazardous chemicals under federal Community Right to Know requirements. Businesses can register and file reports at www.idem.IN.gov/5285.htm.

CONCLUSION

Due to the proactive streamlining of IDEM procedures begun in 2005 under Governor Daniels and Commissioner Easterly, IDEM is able to maintain effective programs and provide services for the continued protection of Hoosiers and our environment.

INDIANA'S ENVIRONMENTAL CHALLENGES

The actions necessary to protect Hoosiers and our environment are quite straightforward:

1. Use the latest scientific information to determine the range of a chemical in the air, water, or land that provides for a healthy life, but is not so high that it causes unacceptable adverse impacts.

An example is oxygen in air—too low a level and humans cannot live, too high a level, or in the wrong form, such as ozone or peroxide, causes various adverse health impacts.

2. Establish regulations and permit limits so that human activities do not cause unsafe concentrations of any chemical in the air, land or water, and to ensure that physical and biological conditions necessary for optimal biological activity are maintained.
3. Inspect human activities to ensure that they comply with the limits established to protect Hoosiers and our environment.
4. Use compliance assistance and enforcement to correct any activity operating out of compliance with the safe limits and, if necessary, to clean up the air, land or water that was contaminated by that activity.

U.S. EPA was formed over 40 years ago; Indiana has had a separate environmental management agency for 25 years and both agencies have made great strides in implementing the four steps necessary to protect Hoosiers and our environment. Why haven't we solved all of our environmental challenges?

1. Environmental limits continue to be reduced.
 - a. In the last three years, U.S. EPA has significantly tightened the ambient air quality standards for lead, nitrogen dioxide and sulfur dioxide.
 - b. U.S. EPA also has announced that the current ozone standard, which represents a 12 percent decrease from the pre-2007 ozone standard, may be decreased.
 - c. Blooms of blue-green algae throughout the world are leading some scientists to conclude that nutrient (phosphorous and nitrogen) levels may need to be reduced.
 - d. Greenhouse gasses, which had not been regulated before, became regulated pollutants on January 2, 2011.
2. We don't always know the safe level for a particular material in the air, land or water.
 - a. Some adverse environmental outcomes depend upon specific combinations of a number of substances that are not individually harmful.
 - b. Most of our knowledge of the adverse effects is from studies of healthy workers exposed to relatively high concentrations in the work place. There is scientific uncertainty concerning both the impacts of the much lower levels typically found in



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the environment and the impacts of these concentrations on particularly sensitive populations, including people with other health problems.

- c. Most chemicals have not been studied at all. Scientifically justified air pollution standards exist for six criteria pollutants and, to a lesser extent, about 200 toxic air pollutants. For water and land there are similar values.
 - d. Some chemicals are only harmful as a specific form that is often not directly discharged, but may be transformed in the environment—methyl mercury is one example.
3. Adverse environmental impacts may be caused by activities that are not easily regulated:
- a. Some chemicals such as mercury in air, ozone depleters and greenhouse gasses come from activities all around the world, and even eliminating all Indiana or U.S. sources would not significantly impact the global total or the impact on the Hoosier environment.
 - b. Some impacts, including mercury and PCB concentrations in fish tissue, are largely related to contamination generated before there were environmental regulations. While there are a number of programs, including Superfund, focused on these challenges, the financial and logistical challenges may take decades to solve.
 - c. As we control the more obvious sources of pollution, the remaining sources become a significant portion of the current contribution to the problem.
 - i. *An example is combined sewer overflows. Conventional engineering solutions to municipal wastewater discharges in communities with combined sewers typically control over 90 percent of the sewage generated by the community. Over the past six years, Indiana's 108 combined sewer communities have committed billions of dollars towards projects to address the remaining, relatively small amount of untreated sewage associated with storm events because once the dry weather discharges were properly treated, these sewage overflows became a major remaining source of water pollution, preventing full recreational use of the waters near those communities.*
4. There are unintended environmental and quality of life consequences of regulatory decisions.
- a. When the cost of a home energy source, such as electricity, goes up to pay for the costs of environmental controls, some people can no longer afford to pay their electric bills and their power is disconnected. A number of these people die each year through carbon monoxide poisoning, household fires or hypothermia as they try to survive in their homes without electricity.
 - b. When the cost of complying with an environmental control requirement at an industry makes that facility uncompetitive in the global economy, the facility often closes and the product formerly produced there is imported from a facility outside of the U.S.

that may have a worse environmental profile than the U.S. facility that closed because it could not afford the additional pollution controls.

- c. A number of substances which can be toxic, including lead, arsenic, mercury and cadmium, are elements of the earth that cannot be created or destroyed. Requirements to remove these substances from either the air or water result in more concentrated (and thus, potentially more toxic) waste streams that must be properly managed to prevent environmental harm.
- d. Improving motor vehicle fuel economy results in less environmental impact per mile driven. However, some studies have indicated that people in smaller more fuel efficient vehicles are more likely to suffer personal injuries in an accident than people in larger vehicles.

Indiana's short term environmental challenges

While the rest of this report documents numerous successes in improving protection of Hoosiers and our environment, there are a number of near term issues which must be addressed to continue protecting Hoosiers:

1. Air Pollution:

- a. Additional emission reductions may be required to meet tighter U.S. EPA standards.
- b. Benzene emissions from motor vehicles and residual concentrations of carbon tetrachloride (a chemical banned years ago) contribute to slightly elevated cancer risks in the U.S., including in Indiana.

2. Water Pollution:

- a. Measurement issues:
 - i. While we continuously measure air pollution at representative locations around Indiana, our knowledge of water quality is limited to discrete sampling events that take place at random locations in any river basin once every five years (this will soon change from a five-year cycle to a nine-year cycle). We are implementing a new "Water Quality Monitoring Strategy" to get a better understanding of current Indiana water quality.
 - ii. The current test of whether water is safe for swimming gives results about 24 hours after the sample is collected. This means that we know that it was safe or unsafe yesterday, but not whether it is safe today. While we also use models to predict if water is safe for swimming today, we need (and U.S. EPA is developing) a reliable test that gives results in less than an hour so that people do not get ill from swimming in polluted water.



- b. Safe level and detection issues:
 - i. While scientists agree that nitrogen, phosphorous and temperature are the major causes of excessive algae growth, except for phosphorous levels in lakes, defining the precise levels of nutrients that will cause excessive algae growth in a given waterbody has been problematic.
 - ii. Historically, measurement limitations resulted in relatively few pollutants being detected. Scientists have improved measurement techniques and we are now detecting a much larger number of pollutants at levels well below those historically considered to be safe (no observed effect levels).

3. Land Pollution:

- a. The number one concern in land pollution issues is that we do not know the location of, and have not determined the safety of, land contamination activities that occurred before there were regulations to prevent contamination.
- b. A related issue is that there is no master record of which Indiana properties have been investigated and found to be either contaminated or suitable for use. While there is a record of properties that have been investigated or cleaned up with state oversight, for all other property in the state, there is typically no public information on whether a given property is suitable for a given use.

National and International Environmental Challenges

Indiana, like all other States, is impacted by national and international environmental challenges. These challenges are typically based upon the fear that some adverse impact that has never happened before may happen in the future.

History shows that in their quest to improve their own quality of life, humans have sometimes caused significant environmental damage, but that we also find ways to change our behavior to prevent future damage and to remediate the damage caused in the past. One of our successes as a species is that we can use the lessons learned from past experience to help prevent a known problem from occurring in the future.

When environmental degradation is expected to occur somewhere else, or is predicted, rather than actually observed, it is difficult to obtain societal agreement on the importance of the resource expenditure required to prevent the expected impacts. This dynamic greatly influences Indiana's programs on the following environmental issues.

Global Climate Change: The general climate of the earth has been both warmer (medieval warming period) and colder (numerous ice ages) in the relatively recent past. Actual records of measured temperatures in the U.S. are relatively new (about 130 years), and reliable, worldwide temperature measurements from satellites are less than 30 years old. These short term temperature records show the earth both warming and cooling over this period, with no appreciable change since about 1998. We do know that since measurements began in 1959, the atmospheric CO₂ concentrations measured at Hawaii's Mauna Loa observatory have steadily

increased from about 316 parts per million (ppm) in 1959 to 387 ppm in 2009, an increase of 22 percent in 50 years. The increase in CO₂ concentrations has continued since 1998, without an apparent increase in the earth's temperature, as measured by the satellite data.

Over the past few decades, thousands of scientists have spent billions of dollars reconstructing the earth's temperature and greenhouse gas history and developing models to predict the earth's future temperature and climate. Many of these scientists have concluded that our increasing use of fossil fuels and certain agricultural practices (primarily rice cultivation and growing ruminant animals) will result in human-caused climate change with potentially adverse consequences. These scientists have recommended that: 1) global human-made greenhouse gas emissions be reduced by 20 percent by 2020 and 80 percent by 2050, and 2) the countries that have historically used large amounts of fossil fuels make payments to countries that have historically used less fossil fuel. These scientists and their supporters believe that, even if there is some uncertainty over the underlying science, taking action now is wise in case the predictions of adverse impacts are correct.

How would an 80 percent reduction in GHG emissions be achieved? Natural gas has the lowest greenhouse gas emissions per unit of energy of any fossil fuel. The challenge in reaching the suggested reduction goals is best illustrated by looking at fossil fuel combustion used for energy which represents over 85 percent of total human-made U.S. greenhouse emissions. While 8.5 percent of our energy use is nuclear and 7.4 percent is renewable (primarily hydropower) and has no greenhouse gas emissions, the rest is from fossil fuels. If we replaced the coal and petroleum with natural gas, the total energy related greenhouse gas emissions would be reduced by 31 percent—surpassing the year 2020 goal of a 20 percent reduction, but falling far short of the 80 percent goal. In order to get from the 31 percent reduction to an 80 percent reduction, the remaining natural gas emissions would need to be reduced by an additional 71 percent through energy conservation and the substitution of nuclear and renewable energy sources for natural gas. While some of this reduction can be achieved by conservation, the challenge is illustrated by the fact that this level of reduction is equivalent to eliminating all current transportation, industrial and commercial energy use, while maintaining current levels of residential energy use.

Environmental Cancer Concerns: The latest statistics reported by the American Cancer Society show that in the U.S., 44 percent of males and 37 percent of females will be diagnosed with cancer during their lifetimes. The cause of these cancers is normally unknown, leading people to wonder if something in the environment is causing cancer in their neighborhood, especially as they learn that almost one half of the people in their neighborhoods have some history of cancer. There is documentation that a few chemicals have historically existed at levels in the environment (typically in air or drinking water) that have likely caused elevated levels of specific cancers in a community. As chemicals linked to cancer cases are identified, regulations and permits are adjusted to prevent future exposures to excessive levels of these chemicals. Most chemicals in the environment are at levels expected to cause cancer in less than 0.0001 percent of people exposed to that level for 70 years, and the highest levels of carcinogens currently allowed in the environment are expected to cause cancer in less than 0.01 percent of the exposed population. While U.S. EPA and IDEM are always working to reduce public exposure to substances that may cause cancer, public concern over very low cancer risks sometimes results in diversion of society's resources from addressing more urgent societal challenges.



Identifying Environmental Goals: Many of the pollutants that can cause harm to Hoosiers and our environment, including lead, mercury, arsenic and chlorine, are also elements of the earth that cannot be created or destroyed. This makes it impossible to simply ban the offending substance even when there is agreement that it can be harmful. The situation is even more complicated because many elements, including nitrogen, phosphorous and chromium, are necessary for life and health in some forms and concentrations, yet dangerous in other forms or concentrations. Because of this, simply banning the use, discharge and disposal of these pollutants is impossible and will not result in the optimal level of protection of human health and the environment. The environmental protection questions are: “What levels of the various elemental pollutants are acceptable in the environment to protect Hoosiers and our environment?” and “Is it possible to reach those levels?” This is a difficult question to answer because different and sometimes conflicting environmental values are achieved at different levels of pollution. For example:

- The western basin of Lake Erie (which receives water from the Maumee River, that drains a portion of Ft. Wayne, Ind.) is both the most eutrophic (nutrient rich, with high levels of unsightly algae) and most biologically productive area of the Great Lakes. The goal of the Clean Water Act is to protect the physical, chemical and biological integrity of our waters. Is our goal for the western basin of Lake Erie: 1) clearer water with less biological productivity, or 2) maximum production of fish that is safe to eat?
- Another values question is: Should materials that are not recycled be: 1) put in a landfill where they will slowly decompose over time, or 2) burned cleanly for energy recovery leaving a biologically inert ash residue that, if managed properly, will not cause any foreseeable environmental issues?
- The use of chlorine as a disinfectant by public water supplies has virtually eliminated water borne diseases from the U.S. However, the use of chlorine sometimes results in the generation of disinfection byproducts which have been linked to an increased risk of some cancers.

Conclusion: While a number of environmental challenges remain to be addressed at the Indiana, national and international levels, objective environmental quality measurements show that Hoosiers and our environment are safer today than at any time since data has been collected. Our environmental improvements continue to contribute to the increasing life expectancies of Hoosiers, and our history shows that we can expect future environmental challenges will be addressed in a way that builds upon the improvements made to date.

ABOUT IDEM

MISSION

IDEM's mission is to implement federal and state regulations to protect human health and the environment while allowing the environmentally sound operations of industrial, agricultural, commercial and government activities vital to a prosperous economy.

OFFICES

IDEM is headquartered at the Indiana Government Center buildings in downtown Indianapolis. A satellite office in Indianapolis, located on Shadeland Avenue, provides important laboratory space for IDEM staff to evaluate and analyze samples gathered. Additionally, four regional offices provide compliance and technical assistance to surrounding businesses and citizens.

Figure 7. General Map of the Regional Service Areas

General Map of the Regional Service Areas

Individual program boundaries may vary to allow optimal resource utilization

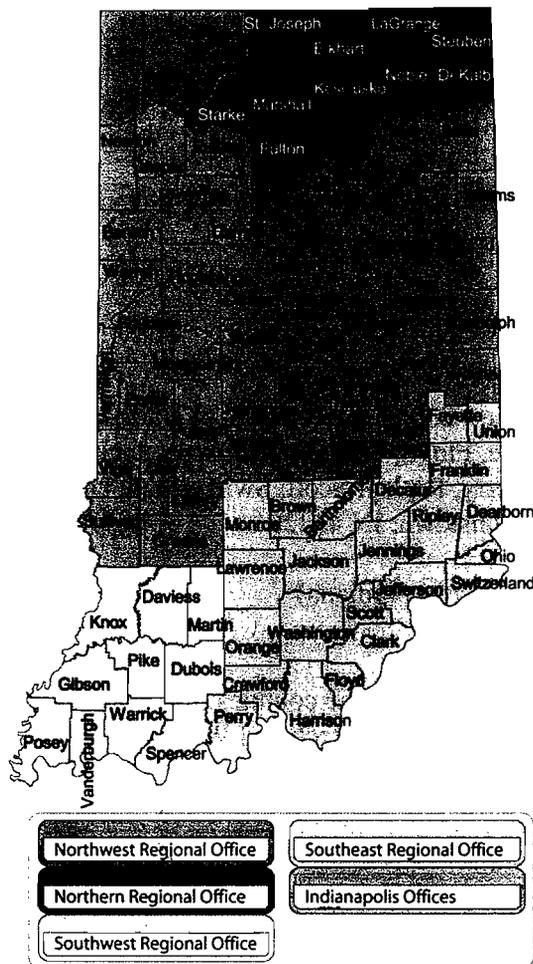




Figure 8. IDEM Offices

IDEM OFFICES

Indianapolis Offices

Indiana Government Center North
100 N. Senate Avenue, Indianapolis, IN 46204
Phone: (317) 232-8603
Toll Free: (800) 451-6027 (within Indiana)

Western Select Building
2525 N. Shadeland Avenue, Indianapolis, IN 46219
Phone: (317) 308-3173
Toll Free: (800) 451-6027 (within Indiana)

Northern Regional Office - Serves the counties of DeKalb, Elkhart, Fulton, Kosciusko, LaGrange, Marshall, Noble, St. Joseph, Starke and Steuben.
300 N. Michigan Street, Suite 450, South Bend, IN 46601
Phone: (574) 245-4870
Toll Free: (800) 753-5519 (within Indiana)
Fax: (574) 245-4877

Northwest Regional Office - Serves the counties of Lake, Porter and LaPorte.
8380 Louisiana Street, Merrillville, IN 46410
Phone: (219) 757-0265
Toll Free: (888) 209-8892 (within Indiana)
Fax: (219) 757-0267

Southeast Regional Office - Serves the counties of Bartholomew, Brown, Clark, Crawford, Dearborn, Decatur, Fayette, Floyd, Franklin, Harrison, Jackson, Jefferson, Jennings, Lawrence, Monroe, Ohio, Orange, Perry, Ripley, Scott, Switzerland, Union and Washington.
820 W. Sweet Street, Brownstown, IN 47220
Phone: (812) 358-2027
Toll Free: (877) 271-0074 (within Indiana)
Fax: (812) 358-2058

Southwest Regional Office - Serves the counties of Daviess, Dubois, Gibson, Knox, Martin, Pike, Posey, Spencer, Vanderburgh and Warrick.
1120 N. Vincennes Avenue, P. O. Box 128, Petersburg, IN 47567
Phone: (812) 380-2305
Toll Free: (888) 672-8323 (within Indiana)
Fax: (812) 380-2304

CONCLUSION

From its inception in 1986, the Indiana Department of Environmental Management has made great strides in attaining its mission of protecting Hoosiers and our environment. Whether looking at Indiana's air, land or water, progress has been realized in all parts of the agency and throughout all parts of the state. The continued participation of citizens and businesses will enhance environmental protection efforts in Indiana as IDEM continues its work to oversee activities that can impact air, land and water quality. The *25th Anniversary State of the Environment 2011* describes how Hoosiers and our environment are protected better than ever before. Additional information about our progress and current programs can be found online at www.idem.IN.gov.



April 22, 2011



July 2011

ENFORCEABLE OPERATING AGREEMENT PROGRAM REPORT

IC 13-17-13-3

The Indiana Department of Environmental Management (IDEM) has a Source Specific Operating Agreement (SSOA) program (pursuant to 326 IAC 2-9) under which specific types of activities may operate, provided that the source accepts the pre-established terms of the SSOA "as is." Although a source may not simultaneously operate under more than one of the same type of SSOA sources can operate under up to 4 different SSOAs, as long as the total potential to emit for any regulated pollutant, as limited by the SSOAs, does not exceed major source levels.

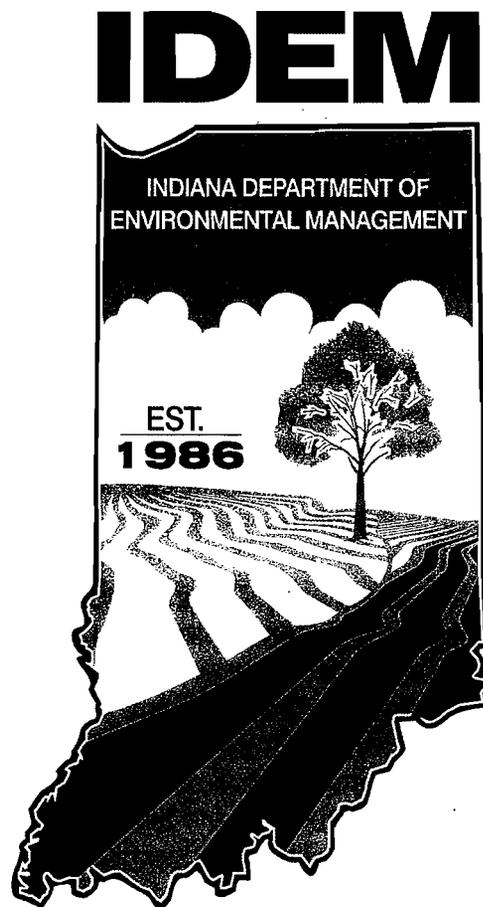
In all, there are 23 separate SSOAs available to applicants, covering 13 specific types of activities. For those SSOAs that limit the total potential to emit for any regulated pollutant to less than twenty-five (25) tons per year, a public comment period is not required (for a list of these SSOAs, see 326 IAC 2-1.1-3(d)). However, pursuant to 326 IAC 2-5.1-3(a)(1)(E), for those SSOAs that have a limited potential to emit for any regulated pollutant of twenty-five (25) tons per year or more, a New Source Review (NSR) Permit for approval to construct and a thirty (30) day public comment period is required. The final issuance of any SSOA is appealable. With the exception of coal mining and some stone crushing SSOAs there is no annual fee required, but sources are required to file an annual Compliance Notification. Sources are not required to renew their SSOA.

Pursuant to 326 IAC 2-9-1(i), a SSOA does not relieve the Permittee of the responsibility to comply with the provisions of any other applicable federal, state, or local rules, or any New Source Performance Standards (NSPS), 40 CFR Part 60, or National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61 or 40 CFR Part 63.

As of June 30, 2011, there were 805 currently permitted Source Specific Operating Agreement (SSOA) sources. In 2010, there were SSOAs issued to 29 sources. As of June 30, 2011, there have been SSOAs issued to 8 sources in 2011.

**Indiana Department of Environmental
Management**

2010 Annual Pollution Prevention Report



January 1, 2010 through December 31, 2010

**Prepared by:
Pollution Prevention Branch, Office of Pollution Prevention and
Technical Assistance**

Introduction

The Pollution Prevention (P2) Branch of the Office of Pollution Prevention and Technical Assistance (OPPTA) in the Indiana Department of Environmental Management (IDEM) is submitting this report to the Indiana General Assembly as required by Indiana Code 13-27-6. This report describes Indiana's pollution prevention activities and the measurable reduction results from 2010 efforts when those results are available. The various P2 programs are summarized in the following categories: voluntary reduction programs, technical assistance, partnerships, reports, awards, grants, and education and training programs.

It is important to note that IDEM is continually seeking the most effective method for measuring the positive impact of pollution prevention activities. Currently IDEM uses surveys, annual reports from voluntary recognition program members, and final reports from grantees to measure pollution prevention progress and results. These tools do not capture all achievements resulting from pollution prevention efforts, but they are determined to be the best available tools for IDEM at this time.

Voluntary Recognition Programs

To encourage Indiana entities to pursue better environmental management practices, the P2 Branch offers recognition for participating in the Indiana Environmental Stewardship Program, Indiana CLEAN Community Challenge, and the Five Star Recognition Program.

The Indiana Environmental Stewardship Program (ESP) is a performance-based recognition program for Indiana businesses. Indiana received grant funding from the U.S. EPA for the development and implementation of a state-based program mirroring the former U.S. EPA Performance Track program. Each participating business has implemented an environmental management system, maintains a positive compliance record, and commits to at least one environmental improvement initiative each year. Participants are provided with regulatory benefits, like reduced record keeping, advanced notice of inspections, and expedited permitting. In 2010, the fifty member facilities realized reductions in the following:

- Material procurement by 15,220 pounds;
- Water usage by 850,351 gallons;
- Energy usage by 8,459,268 kilowatt hours; 9,628 MMBtu; and 123,595 therms;
- Land and habitat conservation by 82.5 acres and 23,375 trees planted;
- Air emissions by 19,800 pounds of GHGs and 4,141 pounds of VOCs; and

- Non-hazardous waste by 133,872,109 pounds and a 2,951,606 pound increase in recycling.

ESP members recycled 7,309,796 pounds during CY2010.

Similar to ESP, the CLEAN Community Challenge is a technical assistance and recognition program for units of local government. CLEAN encourages communities to identify the environmental impacts from municipal operations and create a management plan focused on continual environmental improvement. During 2010, Washington, Jasper, and West Lafayette were designated into the CLEAN Community Challenge Program, and Michigan City was removed bringing the total membership in December 2010 to thirteen municipalities. These members have committed to continuous environmental improvement by identifying the potential environmental impacts associated with municipal operations and implementing plans to proactively manage those impacts. Designated communities are required to submit an annual performance report which describes the progress made and hurdles overcome on their environmental projects for the year. To date, total reductions reported during 2010 include:

- 1,124,985 pounds of air emissions;
- 480,141 kWh of electricity;
- 7,278 gallons of gasoline;
- 13,745 pounds of material usage; and
- 824,109 pounds road salt.

Other environmental improvements were the following:

- Increased pounds of composting by 22,832,400;
- Recycled 91,952,472 pounds of materials;
- Planted 2,720 native species trees;
- Developed two miles of greenway; and
- Distributed 56 rain barrels.

The Five Star Environmental Recognition Program for Child-Care Facilities recognizes facilities that go above and beyond the requirements of environmental, health, and safety regulations. In 2010, membership in the program rose to 81 child care providers. Through funding from Family and Social Services Administration, over 50 child care providers were able to attend the Healthy Homes Healthy Child Care Conference in November 2010. There they spent two days learning about environmental health threats found in homes and child care settings.

Technical Assistance

In addition to offering environmental recognition programs, OPPTA provides confidential, environmental technical assistance to regulated Indiana entities. The Pollution Prevention Opportunity Assessment (P2OA) Program provides on-site technical assistance to businesses seeking information, guidance, planning assistance, or recommendations for pollution prevention at their facility. The P2 branch conducted 16 P2OAs in 2010. During the 2010 calendar year, companies who reported the results from implementing the suggestions made during P2OAs had the following reductions:

- Solid waste by 1,000 pounds and;
- Electrical use by 136,858 kWh.

Partnerships

The Partners for Pollution Prevention, in cooperation with IDEM, held four meetings during 2010 for Indiana entities to share pollution prevention strategies. One of these meetings was the Thirteenth Annual Pollution Prevention Conference and Trade Show. The day's agenda centered on the theme "Culture Change and Cost Savings- the P2 toolbox" and allowed speakers to share information on adopting pollution prevention into everyday business operations. In addition to these ongoing educational opportunities, the Partners annually report on the results of their pollution prevention initiatives. Total reductions reported by the 67 members in 2010 include:

- 610.6 million pounds air emissions;
- 15.4 million pounds solid waste;
- 1.3 billion gallons water usage;
- 2 million pounds hazardous material usage;
- 72.6 million pounds hazardous waste; and,
- 34.2 million kilowatt hours energy savings.

Reports

The Toxic Release Inventory (TRI) is a Community Right-to-Know program that requires certain industrial facilities to annually report data to U.S. EPA and the state about the generation and management of certain toxic chemicals. The P2 Branch uses TRI data to look at trends and to work with industries to reduce waste at the source, use chemical alternatives that are less toxic, and identify opportunities to recycle and reuse materials.

According to the most recent TRI data from RY2009 due July 1, 2010, onsite toxic releases in Indiana decreased by eighteen percent, or 20.6 million pounds, overall. Onsite releases to water decreased for the third year in a row, by 5.6

million pounds; onsite releases to the air decreased for the second year in a row, by 9.8 million pounds; and releases to land decreased by 5.2 million pounds.

About 49 percent of Indiana's total releases came from manufacturers. Overall, that sector reduced its releases by 19 percent compared to 2008. The electric generating sector, which accounts for about 50 percent of Indiana's reported releases, showed an overall reduction of about 13 percent.

Based on an analysis of the Indiana Gross Domestic Product in comparison with TRI data, Indiana manufacturers are trending toward an overall reduction in toxic chemical releases compared with the amount of materials they produce. Since 2006, Indiana manufacturers have reduced the amount of pollution per cost of part by about 36 percent.

Awards

The Indiana Governor's Awards for Environmental Excellence provide recognition to manufacturers, businesses, organizations, vendors, educators, and dedicated individuals for their outstanding environmental initiatives. These awards also provide an opportunity to demonstrate these initiatives to others. In 2010, a total of eleven Indiana businesses were given awards.

Grants

In 2008, IDEM reinstated the Indiana Pollution Prevention (P2) Grant Program. The purpose of this program was to increase pollution prevention, water and energy conservation through measurable results. Any Indiana organization was eligible to apply for funding. Challenges arose during 2009 and budget reductions forced the suspension of the P2 Grant Program.

In 2009, IDEM received a grant from the U.S. EPA to fund Reducing Toxics in Indiana, an effort to strategically minimize the use of chemicals on the U.S. EPA Resource Conservation Challenge Priority Chemicals list and the U.S. EPA Regional Priority Chemical list. Using the latest data from the TRI, OPPTA has been able to contact and offer free and confidential P2OAs to facilities with the opportunity to make reductions in chemical usage. Facilities were also encouraged to reduce these priority chemicals by applying to the 2010 Indiana P2 Grant Program, which was funded by the federal grant. Three grants were awarded totaling \$160,000. Results from these projects are not yet available.

Indiana's Clean Vessel Act (CVA) pumpout grant program allows a public or private marina to receive a reimbursement of up to 75% for the purchase and installation of a pumpout. Installing such a system at Indiana marinas will provide

boaters with a proper method to dispose of their sewage and thus prevent it from entering Indiana's waters. In 2010, two grants were awarded, totaling \$169,016.

Indiana's Boating Infrastructure Grant Program (BIGP) provides grant funds for the construction, renovation, and maintenance of tie-up facilities with features for transient boaters, which are vessels 26 feet or more in length and stay less than 10 days. The grant allows for reimbursement of up to 75% for the purchase and installation of transient docks. These new facilities will allow boaters to come on shore to remove their sewage and enjoy the regional establishments. In 2010, five grants were awarded, totaling \$125,368.

Education and Training Programs

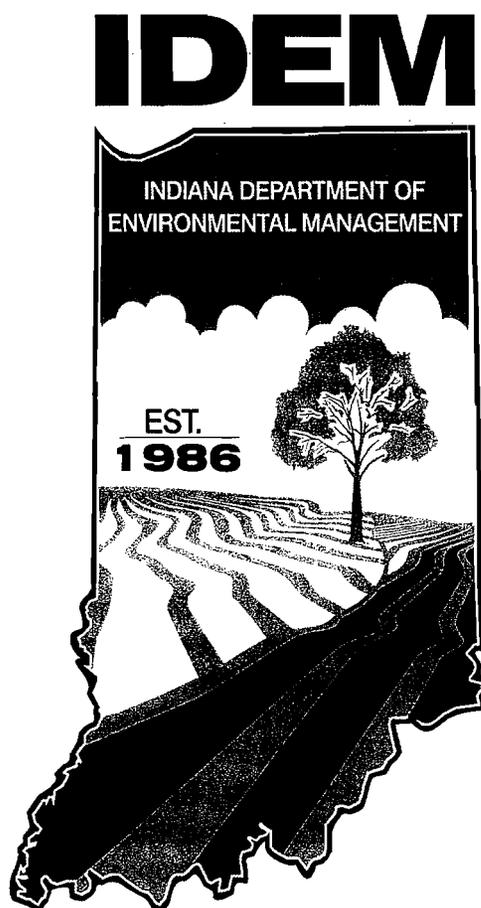
OPPTA provides pollution prevention education and training to Indiana schools and universities, the regulated industry, and general public. IDEM made presentations to over 13,000 Hoosier children during Earth Week in 2010. A variety of topics were covered including nonpoint source water pollution, recycling, and landfill construction.

Another educational initiative is the Volunteer Idling Program (VIP). This program encourages businesses and industries to reduce the amount of fuel burned during unnecessary idling. The VIP Challenge is a pledge that commits manufacturers and fleet owners to reduce idling in their operations and on their campuses. In 2010, the number of partners that signed the pledge increased to thirty.

Conclusion

IDEM continues to make progress implementing the Indiana Industrial Pollution Prevention and Safe Materials Act. The P2 Branch focuses on continually improving the programs' effectiveness to reduce pollution and accurately measuring reduction results. At this time, IDEM does not see a need for additional legislation in this area. For additional information on the state of Indiana's P2 Programs please call (800) 988-7901.

**Indiana Department of Environmental Management
2010 Household Hazardous Waste Program
Annual Report**



January 1, 2010 through December 31, 2010

**Prepared by:
Indiana Household Hazardous
Waste Grant Program**

Introduction

The Indiana Department of Environmental Management (IDEM), Office of Pollution Prevention and Technical Assistance (OPPTA), Source Reduction and Recycling Branch has provided grant funding and technical assistance to Indiana local units of government for the development and operation of household hazardous waste (HHW) and conditionally exempt small quantity generator waste (CESQG) collection programs. Since 1994, IDEM has provided 175 HHW grants and 5.8 million dollars in support to communities and solid waste management districts. This funding helped start and expand HHW programs or activities, safe management of hazardous household products, and educate residents about preferred disposal options for HHW.

Suspension of HHW Grant Program

Currently, as all levels of government around the country are managing budget reductions, the State of Indiana is committed to keeping all essential governmental services running smoothly and effectively during these difficult times. Therefore, the Indiana Department of Environmental Management in December of 2008 temporarily suspended state-funded grant and loan programs for business and local government recycling and pollution prevention projects, including the Household Hazardous Waste Grant Program.

Due to the suspension of the grant program, no projects were funded in 2010 and no money was expended through the grants program. Until the fiscal situation is resolved, no estimate of money required to meet grant requests or recommended changes to the program will be provided through this annual report. IDEM continues to provide technical assistance to Indiana residents, local government and businesses on HHW and CESQG collection and management issues, including household pharmaceutical and sharps waste management.

Technical Assistance and Support

The following sections provide brief updates on IDEM technical assistance, educational activities informing residents and businesses about ways to reduce HHW and CESQG generation and improper disposal, and the operations of Indiana HHW programs.

Indiana HHW Task Force

IDEM continues to work with the Indiana Household Hazardous Waste Task Force, Inc. (IHHWTF) and communities to address HHW issues throughout the state. With IDEM's technical assistance, the Task Force promotes the proper, environmentally-safe collection, recycling, and disposal of household hazardous waste. Its 53 members include solid waste management districts, cities, towns, counties and companies that manage or provide HHW services. Since 2000, regional cooperative HHW grants (funded by IDEM) and local funding have supported IHHWTF members in diverting more than 3.4 million pounds of HHW from being poured down the drain, on the ground, or ending up in solid waste landfills.

Pharmaceuticals

The proper disposal of expired or unwanted medicines is an issue that has received increased concern among the public, the medical community, environmentalists and governmental agencies in recent years. Products of concern include prescription, over-the-counter medications and personal care products. Improper disposal of medicines presents both a public safety and environmental hazard. Studies conducted by the U.S. Geological Survey (USGS) have shown that pharmaceuticals are present in our lakes and streams. Expired or

unwanted medicines, if flushed down the toilet or drain, are a source of pollution in wastewater. Because sewage treatment plants are not designed to deal with pharmaceutical waste, these chemicals can be released into streams, lakes, and groundwater and affect fish and other aquatic wildlife.

In 2010, IDEM provided technical assistance to communities, SWMDs, and organizations to establish pharmaceutical collection programs. Indiana collection programs reported collecting 15 tons of household pharmaceutical waste in 2010. Additionally, 41 Marsh pharmacies collected over 35,000 vials of pharmaceuticals from over 2,400 persons during spring and fall events. Staff has coordinated the Indiana Unwanted Medicines Task Force, a group of individuals representing pharmacy, medical, solid and hazardous waste, and governmental interests. The Task Force has evaluated and discussed the evolving issue of household pharmaceutical waste disposal and is developing an Indiana guide on collecting unwanted medications.

HHW Collection around the state

Household hazardous waste programs collect waste that otherwise would be improperly disposed by dumping in a ditch, poured down drains or storm sewers, or disposed in landfills. Thirty-seven HHW programs, serving 62 percent of Indiana residents, provided IDEM HHW collection information for 2010. Information on local HHW collection programs can be found at www.in.gov/recycle/5724.htm.

2010 HHW Program Collections	
Hazardous Waste	2,437 tons
Used Motor Oil	116,000 gallons
E-waste	1,370 tons
Tires	160,000 tires
Appliances	1769 tons
Sharps	4.7 tons

Most programs that provide HHW services also collect problem materials because of the lack of other means of disposal for these materials and increased public demand for collection services. Problem materials include mercury and mercury-containing items, used oil, electronics, tires, appliances, and sharps. These problem materials contain toxic or hazardous component that are difficult to dispose of safely, and improper disposal can create environmental and health hazards (see chart above).

Conclusion

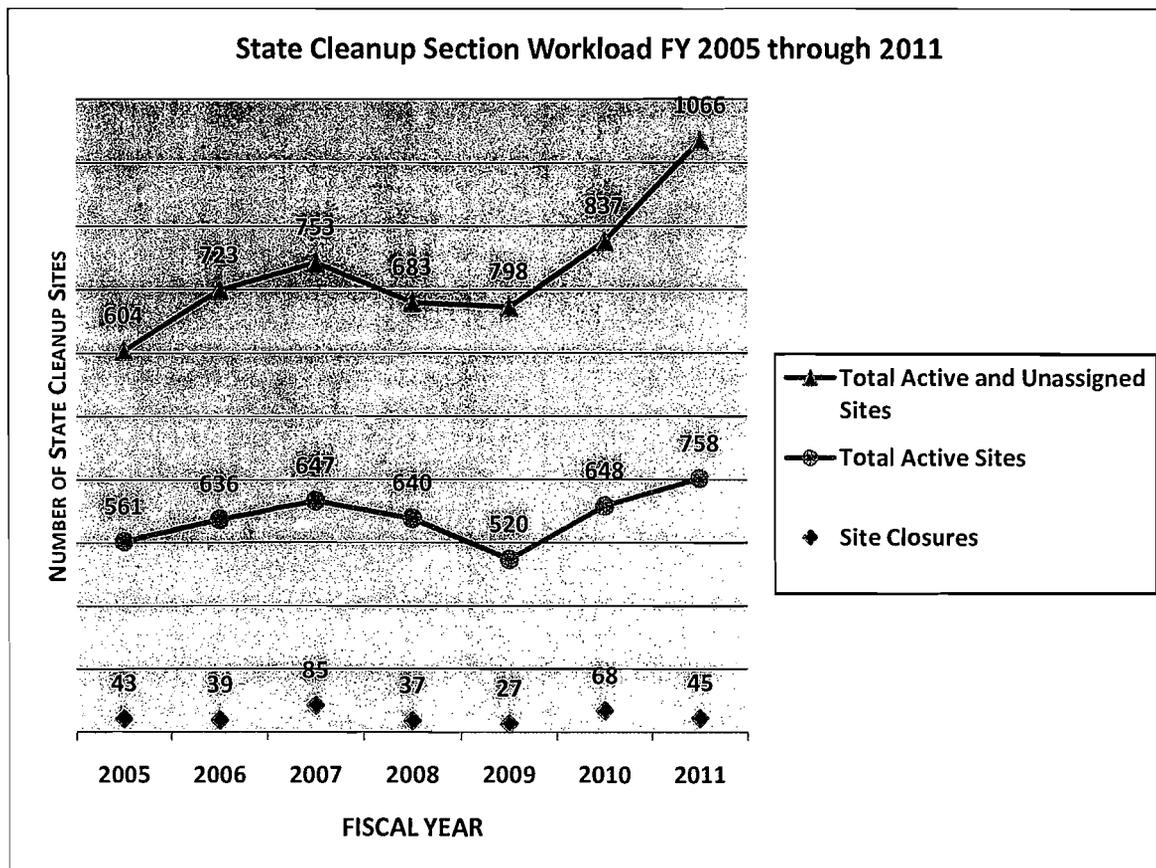
IDEM technical support and grants have provided important support for the growth of HHW programs and services in Indiana. HHW programs educate residents on safe storage and management of household chemicals which helps prevent accidental poisoning of children and household accidents. HHW programs provide a way for residents to safely dispose of used motor oil, gasoline, pesticides and other hazardous products used in the home, making homes safer and reducing hazards for fire fighters. The hazardous and problem waste collected and properly disposed by HHW programs is diverted from disposal in Indiana lakes, streams, storm drains, and ravines, reducing pollution and clean-up cost for Indiana communities. For more information on IDEM HHW reduction efforts, visit www.recycle.in.gov.



August 2011

Hazardous Substance Response Trust Fund Report

IC 13-25-4-25



The State Cleanup Section (SCS) is an enforcement program in the Remediation Branch of the Office of Land Quality. The role of SCS is to manage chemically contaminated sites, petroleum contaminated sites that are not regulated by the Leaking Underground Storage Tank, Excess Liability Trust Fund Sections or have been referred to the Federal Superfund Program.

Common examples of SCS sites include current and former dry cleaners, current and former manufacturing facilities, petroleum pipelines, refineries, and petroleum bulk storage facilities. The sites within the SCS range from less than a quarter acre to well over a mile in length.

The SCS is partially financially self sustaining through the ability to recover operating costs, in FY2011 \$2,230,904.64 was recovered from responsible parties. The Hazardous Substances Response Trust Fund is the source for most of the SCS funding obtained through the authority of IC 13-25-4-8 to recover the cost of its operating expenses from responsible parties. The SCS also works with the Attorney General's Office to obtain financial claims through bankruptcy

proceedings to affect cleanup of contaminated sites. From 2008 to 2011, SCS and the Attorney General's Office have filed more than \$26 million in environmental claims during bankruptcy proceedings and successfully received approximately \$13 million to be used for cleanup of the bankruptcy sites to mitigate impacts to human health and the environment. Some claims remain pending.

When possible, SCS works to resolve problems to allow the economic redevelopment of contaminated sites. However, the SCS does allow the transfer of sites to the Voluntary Remediation and the Brownfield Programs. To date, the State Cleanup Section (SCS) has 107 high priority sites, 470 medium priority sites, and 228 low priority sites. SCS has overseen the closure of 329 sites since January 1, 2005.

Exhibit 7 - EQSC, Aug 4, 2011



AUGUST 2011

ADMINISTRATIVELY EXTENDED NPDES PERMITS

IC 13-15-4-19

NPDES Permit Renewals	
Number of Pending NPDES Renewals Submitted On-Time	14
Number of Pending NPDES Renewals Submitted Late (< 180 days prior to expiration date) <i>[Additionally it should be noted that 6 of these applications had only been in-house < 180 days.]</i>	8
Number of Pending General NPDES Renewals Submitted Late (< 90 days prior to exp date)	0
Total Number of Pending NPDES Renewals as of 7/1/2011	22

* Additional Notes	
Of the 22 pending NPDES permit renewals, number which have already been public noticed.	11
EPA-defined Permit Backlog (only counts a permit as backlogged if it is still pending > 180 days past the Expiration Date)	9

New NPDES Permits	
Number of Pending New NPDES applications exceeding the statutory timeframes of IC 13-15-4-1	0



FY 2011

LEGISLATIVE REPORT ON CFO/CAFO ACTIVITIES

Senate Resolution 2512-2007

The Indiana Department of Environmental Management's (IDEM) Office of Land Quality administers the animal feeding operation regulatory program in Indiana. This program includes permitting, compliance monitoring and enforcement activities for 1,338 Confined Feeding Operations (CFOs) and 628 Concentrated Animal Feeding Operations (CAFOs) for a total of 1,966 operations subject to permitting and inspection. In accordance with Senate Resolution 2512 the following information is being provided by the Indiana Department of Environmental Management for the time period July 1, 2010 through June 30, 2011.

CFO and CAFO Inspections
Inspection Conducted from July 1, 2010 to June 30, 2011

Permit Type	Reason for Inspection <i>(definitions on following page)</i>	Number of Inspections
CFO	Paperwork (CoC) Follow-Up	3
	Compliance Assistance	5
	Construction	7
	Complaint Inspection	16
	Follow-Up Inspection	37
	Routine Inspection	244
	Spill Response Inspection	1
	Voidance	57
	Other (permit, enforcement, site status...)	57
	Total	427
CAFO	Paperwork (CoC) Follow-Up	2
	Compliance Assistance	13
	Construction	36
	Complaint Inspection	17
	Follow-Up Inspection	24
	Routine Inspection	80
	Spill Response Inspection	3
	Voidance	2
	Other (permit, enforcement, site status...)	7
Total	184	
CFO/CAFO Totals	Paperwork (CoC) Follow-Up	5
	Compliance Assistance	18
	Construction	43
	Complaint Inspection	33
	Follow-Up Inspection	61
	Routine Inspection	324
	Spill Response Inspection	4
	Voidance	59
	Other (permit, enforcement, site status...)	64
	Total	611

CFO and CAFO Violations
Violations Cited from July 1, 2010 to June 30, 2011

Permit Type	Citation/Violation	Number of Violations
CFO	Approval and Performance Standards	16
	Discharge and Spill Requirements	12
	Land Application Records	158
	Operating Records	77
	Operational Standards	44
	Land Application	5
	Total	312
CAFO	Approval and Performance Standards	3
	Discharge and Spill Requirements	6
	Land Application Records	50
	Operating Records	32
	Operational Standards	31
	Land Application	2
	Total	124
CFO/CAFO Totals	Approval and Performance Standards	19
	Discharge and Spill Requirements	18
	Land Application Records	208
	Operating Records	109
	Operational Standards	75
	Land Application	7
	Total	436

**CFO Approval and NPDES CAFO Permit Animal Threshold Numbers and
Number of CFO Approvals and NPDES CAFO Permits* Issued Between July 1, 2010 and June 30, 2011**

Species/Sector	Threshold Number of Animals			CFO	Number of NPDES Permits* and CFO Approvals Issued				
	Large CAFO	Medium CAFO**	Small CAFO***		Large CAFO	Medium CAFO**	Small CAFO***	CFO	
Beef									
Cattle	≥1,000	300-999	<300	≥300	1	0	0	3	
Cow/Calf Pairs									
Dairy									
Mature Dairy Cow	≥700	200-699	<200		13	3	0	6	
Other than Mature Dairy Cows <i>(dairy heifers/dairy calves/veal calves)</i>	≥1,000	300-999	<300						
Swine									
Growers/Finishers/Sows/Boars <i>(greater than 55 lbs)</i>	≥2,500	750-2,499	<750	≥600	71	2	0	15	
Nursery Pigs <i>(less than 55 lbs)</i>	≥10,000	3,000-9,999	<3,000						
Chickens									
Layers/Broilers <i>(liquid manure handling system)</i>	≥30,000	9,000-29,999	<9,000	≥30,000	20	1	0	9	
Chickens Other than Layers <i>(not in a liquid manure handling system)</i>	≥125,000	37,500-124,999	<37,500						
Layers <i>(not in a liquid manure handling system)</i>	≥82,000	25,000-81,999	<25,000						
Ducks									
Liquid Manure System	≥5,000	1,500-4,999	<1,500	2	0	0	0		
Not a Liquid Manure System	≥30,000	10,000-29,999	<10,000						
Others									
Turkeys	≥55,000	16,500-54,999	<16,500	2	0	0	9		
Horses	≥500	150-499	<150	≥500	0	0	0	0	
Sheep/Lambs	≥10,000	3,000-9,999	<3,000	≥600	0	0	0	0	
Totals					109	6	0	42	

*All NPDES CAFO permit applications included (NPDES CAFO General Construction, NPDES CAFO General Coverage, NPDES CAFO General Renewal, NPDES CAFO Individual Construction, NPDES CAFO Individual Coverage, and NPDES CAFO Individual Renewal).

** In addition to meeting animal threshold numbers, the operation must also discharge or have discharged pollutants into waters of the state. Medium CAFOs which do not discharge may voluntarily participate in NPDES program.

*** In addition to meeting animal threshold numbers, the operation must also discharge or have discharged pollutants into waters of the state and be designated a CAFO.

Permitting Activities
CFO and CAFO Application Details from July 1, 2010 to June 30, 2011

Application Type	Received	Issued	Denied*	Withdrawn
CFO Approval Applications	55	42	2	0
General NPDES CAFO Permit Construction Applications	45	35	1	1
Large CAFOs	45	35	1	1
Medium CAFOs	0	0	0	0
Small CAFOs	0	0	0	0
Individual NPDES CAFO Permit Construction Applications	2	3	0	2
Large CAFOs	1	1	0	2
Medium CAFOs	1	2	0	0
Small CAFOs	0	0	0	0
Construction Applications	102	80	3	3
General NPDES CAFO Permit Coverage Application	8	7	1	0
Large CAFOs	7	5	1	0
Medium CAFOs	1	2	0	0
Small CAFOs	0	0	0	0
General NPDES CAFO Permit Renewal Application	75	69	0	0
Large CAFOs	75	67	0	0
Medium CAFOs	2	2	0	0
Small CAFOs	0	0	0	0
Individual NPDES CAFO Permit Coverage Application	0	0	0	1
Large CAFOs	0	0	0	0
Medium CAFOs	0	0	0	1
Small CAFOs	0	0	0	0
Individual NPDES CAFO Permit Renewal Application	1	1	0	0
Large CAFOs	1	1	0	0
Medium CAFOs	0	0	0	0
Small CAFOs	0	0	0	0
Other NPDES Permit Applications	84	77	1	1
Totals	186	157	4	4

* All 4 applications denied in FY 2011 were due to incomplete application submittals per requirements contained in IC 13-18-10.

July 1, 2010 to June 30, 2011
CAFO/CFO METs Review

NOVs Issued:

CFO	7
CAFO	7
Total	14

AOs Adopted and Civil Penalty Collected:

CFO	5	\$16,600
CAFO	10	\$24,950
Total	15	\$41,550

AO Violation Breakdown and Civil Penalty:

Water Quality Violations

CAFO	5	\$18,300
CFO	0	\$0
Total	5	\$18,300

Construction Permit Requirements (NOI, affidavits, etc)

CAFO	2	\$2,400
CFO	0	\$0
Total	2	\$2,400

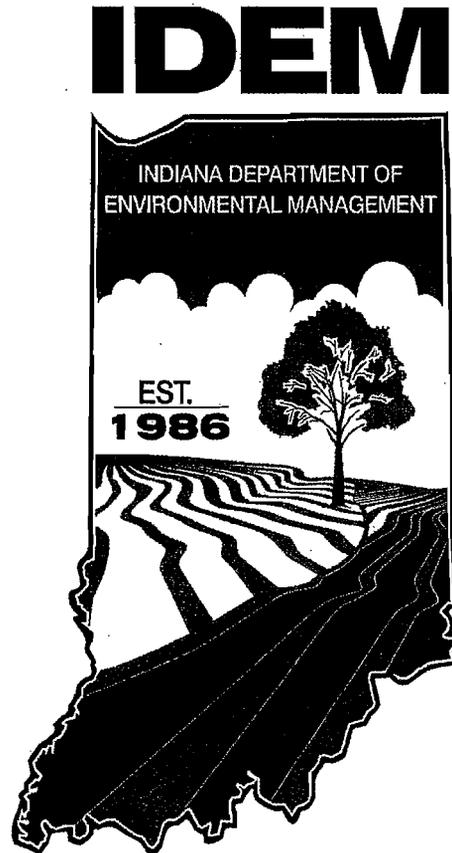
Permit/Approval Conditions

CAFO	3	\$4,200
CFO	5	\$16,600
Total	8	\$20,800

Exhibit 9 - EQSC, Aug 4th, 2011

Indiana Department of Environmental Management

FY 2011 Annual Report



July 1, 2010 through June 30, 2011

Prepared by:

Indiana Waste Tire Management Grant Program

The Waste Tire Management Fund

Indiana Code (IC) 13-20-13-8 establishes the Waste Tire Management Fund (WTMF) to support Indiana's Waste Tire Management Program. Utilization of the WTMF ranges from the remediation and removal of improperly disposed waste tires, promotion of the utilization of processed tire products, and the provision of financial assistance to reduce waste tire generation. Management of the WTMF was transferred from the Office of Lieutenant Governor to IDEM on July 1, 2007. Table 1 represents an overview of the revenue and expenditures administered through the fund for Fiscal Years 2008 through 2011.

Fiscal Year	Fee Revenue	IDEM Grants	IDEM Cleanups
2008*	\$1,596,240	\$292,644	\$0
2009**	\$1,623,795	\$1,000,000	\$592,705
2010***	\$2,299,645	\$0	\$0
2011****	\$1,380,044	\$0	\$0

* July 1, 2007 through June 30, 2008
 ** July 1, 2008 through June 30, 2009
 *** July 1, 2009 through June 30, 2010
 **** July 1, 2010 through June 30, 2011

Table 1: Revenue and Expenditures

Suspension of Waste Tire Management Grant Program

As governments around the country are managing budget reductions, the Indiana Department of Environmental Management has temporarily suspended many state-funded grant and loan programs for business and local government recycling and pollution prevention projects.

Due to the suspension of the grant program, no projects were funded in FY 2011, and no money was expended through the grants program. Until the fiscal situation is resolved, no estimate of money required to meet grant requests or recommended changes to the program will be provided through this annual report. This report will review aspects of the Waste Tire Management Program related to the management of Indiana waste tires.

The Waste Tire Management Program

The IDEM Office of Land Quality (OLQ) is responsible for regulating waste tire management operations across the state. Indiana Administrative Code (IAC) 329 15 provides the framework for monitoring the 81 transporters, 27 processors and 6 storage facilities maintaining waste tire program certificates of registration.

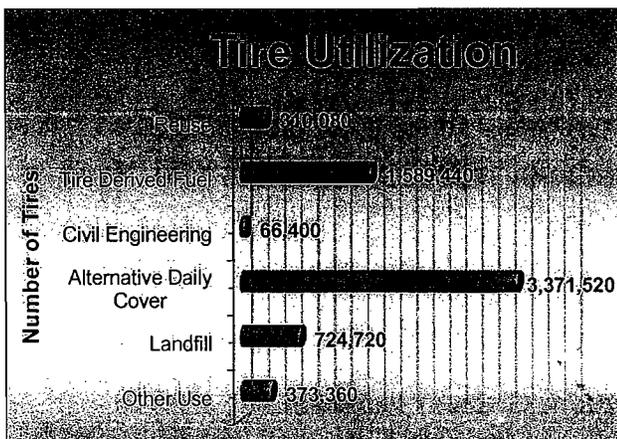


Chart 1: Tire Utilization

Waste tire activities reported by processors reflect that more than 6 million passenger tire equivalents (PTEs) were received. Chart 1 shows how tires were disposed or utilized.

The following sections detail the management programs supported by the WTMF.

Waste Tire Transporters

Indiana waste tire transporters are required to pay a \$25 application fee for a 5 year registration in addition to an annual \$25 operating fee. 329 IAC 15-4 requires transporters to annually report the number of

waste tires handled and to maintain financial assurance in the amount of \$10,000. A list of transporters currently registered with IDEM may be found online at: http://www.in.gov/idem/files/wt_transporters.pdf.

Waste Tire Processors and Storage Facilities

329 IAC 15-3 requires annual reporting of the number of tires handled, maintaining records of tire sources, and preparation of a facility contingency plan for dealing with emergencies. Processing operations are required to drain water from tires on the day they are received and process them within seven days to prevent water collection and the threat of mosquitoes spreading disease.

The application fee for a 5 year waste tire processing registration is \$200. There is no annual fee for waste tire processing facilities. Operations can also register their facilities as storage sites which require an additional \$500 application fee, \$500 annual operating fee and posting a site closure bond. This financial assurance is based on the cost to clean up the volume of material stored on the site. The operating allowance for tire storage is 1,000 tires outside or 2,000 tires inside.

A list of waste tire processors and storage facilities currently registered may be found at: http://www.in.gov/idem/files/wt_processors_and_storage.pdf. Copies of the registration materials for transporters, processors, and storage facilities, as well as annual reporting and manifest forms may be obtained online at: http://www.in.gov/idem/5157.htm#olq_tires.

Compliance and Enforcement

There were no new cases opened by IDEM's enforcement staff regarding waste tire violations in FY 2011. The objective of enforcement actions initiated by OLQ is to correct violations and assure all facilities are complying with the same standards. Enforcement actions are also utilized to facilitate clean up of tire dumps that represent a threat to human health and the environment.

Major sources of waste tires are subject to OLQ compliance inspections for proper waste tire management practices. These include vehicle maintenance facilities, transportation companies, new and used tire dealers, tire retreading plants, and auto salvage operations.



Although waste tire generators or sources are not required to register with OLQ, IC 13-20-14 sets out waste tire management requirements for specific operations.

New tire retailers are required to accept from the consumer the same number of waste tires replaced by new tires purchased. A handling charge is routinely collected by the dealer for this service, in addition to the \$0.25 new tire fee. All sources of waste tires are responsible for delivery of their tires to an approved processing or disposal facility. This is the main service provided by registered waste tire transporters. Additionally, all major sources of waste tires

are required to maintain records, such as copies of waste tire manifests, to document proper waste tire management.

Goals

IDEM has established multiple goals to address waste tire management problems in Indiana. Those goals are to promote demand for the most valuable tire-derived products, clean up

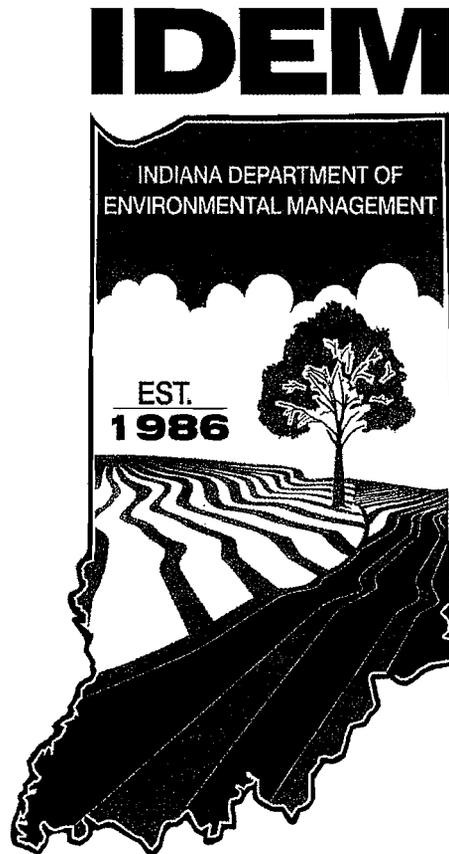
illegal tire piles, and provide proactive compliance assistance to the industry. IDEM is committed to:

- Encouraging the development of viable end markets for waste tires.
- Identifying and encouraging the purchase of tire-derived products.
- Working with other Indiana agencies to promote additional testing for applications and establishing standards supporting the use of tire materials in projects.
- Evaluating existing approaches, authorities, and efforts to properly manage waste tires and continue the efforts for waste tire cleanup.
- Working with prospective Indiana companies and institutions to explore opportunities to utilize waste tires in an environmentally sound manner to recover resources or energy.
- Continuing outreach efforts to waste tire processors, transporters, and storage site operators to educate them on compliance issues and best management practices.

For more information about waste tires in Indiana and recycling resources, please visit the IDEM Web site at www.recycle.in.gov.

Indiana Department of Environmental Management

FY 2011 Annual Report



July 1, 2010 through June 30, 2011

Prepared by:
Indiana Recycling Market Development Program

The Recycling Market Development Program (RMDP) established under IC 4-23-5.5-14 provides financial and technical assistance to help Indiana businesses increase recyclable material manufacturing capacity, as well as increase the use of recycled content products. Promoting the concept of collecting, using, and producing recycled materials in Indiana is a means of supporting the agency's initiatives of job creation and economic stability leading to environmental stewardship of natural resources.

Suspension of Recycling Grant and Loan Programs

As Indiana tax revenues decreased substantially in the fall of 2008, the Indiana Department of Environmental Management (IDEM) temporarily suspended many state-funded grant and loan programs for business, school, and local government recycling and pollution prevention projects.

In April of 2010, Indiana released a total of \$500,000 for grants to aid private businesses to purchase equipment specifically needed to remanufacture recyclable materials into finished products or industrial feed stocks. The following four grants were awarded at the August 19, 2010 Recycling Market Development Board meeting.

- **Cereplast, Inc.** awarded \$100,000
Company manufactures biodegradable/compostable resin. Funds will be used for a bioplastic extrusion compounding production line.
- **Green Tech Transfer and Recycling, LLC** awarded \$100,000
The transfer facility station will be concentrating in C&D recycling, including processed wood and asphalt shingles. Funds will be used for the purchase of an industrial grinder and loader.
- **Electronic Recyclers International—Indiana, Inc. (ERI)** awarded \$100,000
Company works as a satellite processor in Indiana, manually separating components and then shredding material in California. ERI will expand operations to include processing by building a new facility which will serve as a main hub for the Midwest.
- **Plantic Technologies, Ltd.** awarded \$200,000
Company manufactures biodegradable materials from starch for packaging industries. Australian-based, they will be locating in Indiana and funds will help purchase equipment, including mixing systems, screening, transferring and quality assurance equipment.

Due to reorganization of their corporate structure, Plantic Technologies, Ltd. withdrew their contract for consideration in April 2011. The \$200,000 granted by the Board was returned to the Recycling Promotion Assistance Fund. The three remaining projects invested a total of \$5.6 million in the state of Indiana, including creating 160 jobs.

Funding for the Program comes from the Solid Waste Management Fee--a \$0.50 per ton charge on final disposal of solid waste at a landfill or incinerator. Accordingly, the Solid Waste Management Fund receives \$0.25, and the other half of the Solid Waste Management Fee is deposited in a separate fund: the Recycling Promotion Assistance Fund, which supports the Recycling Market Development Program. Funding decisions for the RMDP projects are approved by the Recycling Market Development Board....

The total revenue received for the Recycling Promotion Assistance Fund for FY 2011 was \$4,020,973, including Solid Waste Management Fee allocations of \$2,593,113 and \$1,427,860 in loan repayments.

Summary

The Office of Compliance Support staff continue to further recycling's environmental and economic benefits by offering to help all Hoosiers through technical and financial assistance: whether businesses wishing to set-up shop or citizens needing guidance to find sellers and processors of recyclable goods.

For more information about recycling in Indiana and recycling resources, please visit the *Recycle Indiana* Web site at: www.recycle.in.gov.

Exhibit 11 - EQSC, Aug 4, 2011



August 2011
Mercury Switches in End of Life Vehicles Activities
IC 13-20-17.7

This program was established to remove mercury switches from end of life vehicles processed in Indiana by motor vehicle recyclers. Implementation of this program addresses the National Emission Standards for Hazardous Air Pollutants for Electric Arc Furnace Steel making facilities.

IC 13-20-17.7-2 requires IDEM to prepare an annual report that includes the number of mercury switches collected from end of life vehicles and the amount of mercury collected.

Mercury Switches Activities July 1, 2010-June 30, 2011

Total Number of Mercury Switches Collected from End of Life Vehicles	29, 975 switches
Total Amount of Mercury Collected	66 lbs

Exhibit 12 - EQSC, Aug 4, 2011

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 Years

IDEM 25 Years

Environmental Quality Service Council

IDEM Cost of Service and Revenues

August 4, 2011

Thomas W. Easterly, P.E., BCEE, QEP
Commissioner

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 Years - Protecting Hoosiers and Our Environment

IDEM 25 Years

Agenda

- How IDEM funds its work
- Revenues Compared to Costs
- Impact of Revenues on Agency Activities
- Accomplishing More with Less
- How Should Programs Be Funded?

2



Funding Sources

(Budgeted Amounts)

FY 2012 - \$93,025,368*

**General:
\$24,338,601**

***Dedicated: \$44,767,066**

*Does not include \$41,617,347
for claims under the Excess
Liability Trust Fund (ELTF)



**Federal:
\$23,919,701**

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Dedicated Fund Appropriations

- Program Areas: \$44,767,066 (88.5%).
 - Air: \$13,341,449.
 - Water: \$9,765,901.
 - Land: \$14,085,888.
 - OPPTA: \$1,758,961.
- Agency Support: \$5,814,867 (11.5%).
 - Legal: \$1,109,985.
 - Community Relations: \$1,081,089.
 - Administration: \$3,623,792.
- ELTF: \$41,617,347.
 - 11% of ELTF is used to pay for the expenses IDEM incurs in:
 - Paying and administering claims against the fund.
 - Inspecting underground storage tanks.
 - Establishing and implementing an underground storage tank operator training program.

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Hazardous Substance Response Trust Fund

- The balance in FY 98 was \$34 million, at the end of FY10 it was \$6.1 million.
 - \$6.1 million does not include IDEM's Superfund Match obligation to EPA: For example, over next 10 years IDEM is committed to spend \$13.5 million on the Jacobsville Superfund site.
- Used to provide state match to Superfund cleanups, fund the State Clean Up program and emergency response activities.
- Funded by tax on hazardous waste disposal,
 - Revenue has fallen from \$6.7 million in FY 06-09 to roughly \$2.5 million per year now.

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Revenues

- Aside from a few program areas, fees have not changed for more than 16 years.
- While Revenues have not increased the Consumer Price Index has increased by 39.96%.
 - Areas where fees have increased:
 - 2003 legislature increased fees for Drinking Water systems.
 - 2005 the Excess Liability Trust Fund received a fee increase from 0.8 cent to 1 cent per gallon of gasoline and a new 1 cent per gallon fee on diesel fuel.
 - 2006 the Air Pollution Control Board increased Title V air permits by 25%.
 - Between \$2.5 - \$3.0 million increase to regulated entities.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT




Revenues

- Permitting Programs that charge little or no fees:
 - 401 Water Quality Certifications: \$0.
 - Stormwater:
 - Rule 5: \$100.
 - Rules 6: \$50 application fee; \$100 annual fee.
 - Rule 13: \$50.
 - Drinking Water / Operator Certification: \$30.
 - CAFO : \$300 New Application; \$100 Permit Modification.
 - CFO: \$100.
 - Land Application: \$0.
 - New legislation allows IDEM to charge fee related to the cost of issuing the permit.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT




NPDES Program Program Costs and Revenue

Budgeted	Federal	General Fund	Dedicated	Revenue
\$12,692,036	\$1,890,034	\$5,934,159	\$5,346,593	\$4,154,475

- Dedicated Fund Expenses Exceed Program Revenue by \$1,192,118 per year.
- Annual Number of permits issued: 300.
- Number of General Permit Holders: 4,000.
- Annual Number of facilities inspected: 1,100.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT




Wetland/Water Quality Certification Program Costs and Revenue

Budgeted	Federal	General Fund	Dedicated	Revenue
\$474,323	\$474,323	\$0	\$0	\$0

- Annual Number of permits issued: 650.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT




NPDES Program Program Costs and Revenue

Budgeted	Federal	General Fund	Dedicated	Revenue
\$4,673,663	\$1,881,101	\$371,290	\$2,597,565	\$2,298,349

- Dedicated Fund Expenses Exceed Program Revenue by \$299,216 per year.
- Number of Drinking Water Systems: 4,212:
 - Community: 812.
 - Transient: 2,826.
 - Non-Community/Non-Transient: 574.
- Annual Number of Inspections: 900.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT




Solid Waste Program Program Costs and Revenue

Budgeted	General Fund	Dedicated	Revenue
\$4,974,672	\$2,221,388	\$2,753,284	\$2,390,125

- Dedicated Fund Expenses Exceed Program Revenue by \$363,259 per year.
- Annual Number of permits issued: 340.
- Number of Facilities Regulated: 1,069.
- Annual Number of Inspections: 1,429.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT




Hazardous Waste Program Costs and Revenue

Budgeted	Federal	General Fund	Dedicated	Revenue
\$8,440,937	\$2,993,143	\$2,319,283	\$3,128,511	\$1,242,619

- Dedicated Fund Expenses Exceed Program Revenue by \$1,885,892 per year.
- Permit Review, renewal, modifications and Corrective action plan reviews: 375.
- Number of Facilities Regulated: 1,551.
- Annual Number of Inspections: 808.

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CAFO/CFO

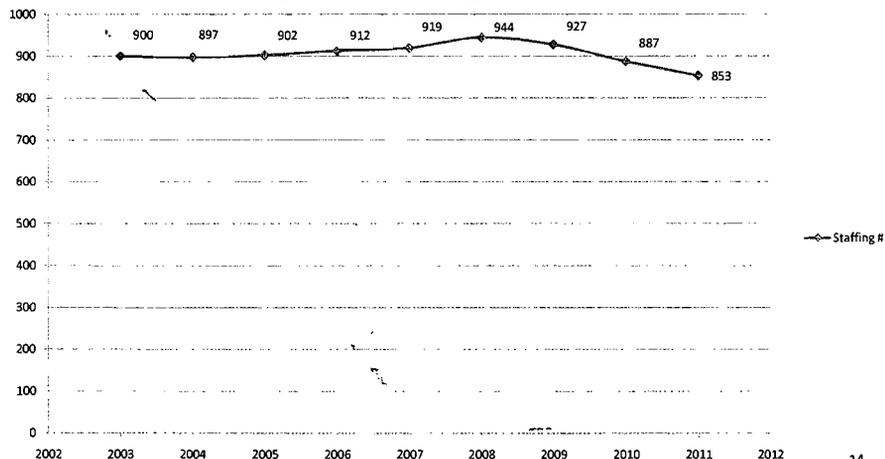
Program Costs and Revenue

Budgeted	General Fund	Dedicated	Revenue
\$1,200,000	\$450,000	\$750,000	\$36,375

- Dedicated Fund Expenses Exceed Program Revenue by \$713,625 per year.
- Annual Number of permits issued: 121.
- Annual Number of Permit renewals: 435.
- Number of Facilities Regulated: 2,239.
- Annual Number of Inspections: 611.



Staffing Changes at IDEM





Increased Program Workload

- Brought ELTF claim review in-house.
- Developed Storm Water Program:
 - Federally required expansion of storm water construction Program.
 - Federally required Municipal Separate Storm Sewer Systems (MS4) program.
- Auto Salvage Recognition and Compliance Program.
- Brought Air Permitting in-house.
- Assumed workload of six local air agencies.
- Increased frequency of UST inspections.

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How Have the Programs Been Affected?

- All offices continue to perform basic core functions of permitting, inspection and remediation oversight.
- Each office has reduced their activities in some specific areas.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 years

IDEM 25 Years

How Have the Programs Been Affected?

- Office of Water Quality
 - Wetland Program does not verify whether mitigation is successful and responds only to complaints.
 - Drinking Water Small System Laboratory Assistance Program scaled back.
 - Assistance to small wastewater systems is reduced.
 - Staffing level (1FTE) for pretreatment program allow only limited auditing of programs.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 years of Protecting Hoosiers and Our Environments

IDEM 25 Years

How Have The Programs Been Affected?

- Office of Land Quality
 - No longer routinely do split sampling with sites required to monitor groundwater.
 - Less field verification of remediation activities.

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Accomplishing More with Less

- Greater Efficiencies:
 - Kaizen events resulting in streamlined processes.
 - Development of IT initiatives, Virtual File Cabinet, TEMPO, Digital Inspector.
 - Independent Closure Process for Low Priority State Clean up Sites.
 - Brought ELTF claim review in-house and saving the fund > \$1,000,000 per year.

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How Should Environmental Programs Be Funded?

- Current funding system has resulted in using funds for activities not originally anticipated when the funds were established.
 - Example: CFO program is funded through the Solid Waste Program, which was not established as a funding mechanism for the CFO program.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 years

IDEM 25 Years

How Should Environmental Programs Be Funded?

- There are also multiple ways that programs are funded.
 - Example: Title V Program vs. ELTF Program
- Title V Program
 - The Clean Air Act requires that 100% of the funding come from the regulated entity.
- ELTF Program
 - ELTF is funded primarily by the general public through a tax on motor vehicle fuels.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 years Protecting Hoosiers and Our Environment

IDEM 25 Years

How Should Environmental Programs Be Funded?

- Should the activities creating the need for the program pay the cost of the program?
 - Example: WWTP fees on discharges.
 - When the discharger is a municipality, individual taxpayers receiving wastewater treatment services are charged for the cost of any discharge fees imposed on the WWTP by IDEM.
 - These same taxpayers would pay some portion of any General Fund appropriation in lieu of a fee.

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How Should Environmental Programs Be Funded?

- Should the general public, who benefits from a clean environment, pay for some or all of the cost of a clean environment?
 - Example: Those on septic systems and those that apply certain lawn fertilizers sometimes create water pollution concerns, yet do not pay a permit fee towards the cost of a clean environment.
 - These people do contribute to the General Fund.

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