

Indiana's Environment

It's Much Cleaner Than You Might Realize

By Charlee Beasor

Fear – it's a powerful motivator. It can drive people to all kinds of chilling conclusions, especially when the topic is the environment and the role it plays in the well-being of Hoosiers.

Typically, we hear about the terrible things happening all around us – call it the “sky is falling” mentality – rather than the many improvements that have been made over the past 30 years.

Sure, Indiana (like all other locales) faces environmental challenges, both in the near future and long term. However, many of them are out of direct control, including:

- The United States Environmental Protection Agency (EPA) continually tightening standards
- The unscientific nature of a scientific topic as even experts don't always know the safe levels for a particular pollutant, many of which are naturally occurring and unable to be destroyed completely
- A variety of unintended consequences from policy and regulatory decisions, including higher utility bills for the public and the financial toll on industry from increased requirements

While those challenges exist, take comfort in knowing just how far the state has come.

“The environment is incredibly much cleaner than it used to be. A lot of our pollutants are down 80%, so we've made great progress. Our challenge is convincing people that it's true,” indicates Thomas Easterly, commissioner of the Indiana Department of Environmental Management (IDEM). “The environment is cleaner than any other time in our lifetimes, and it continues to get cleaner.”

Fresher air

There have been measured reductions in common pollutants in Indiana's air.

Dr. William Beranek Jr. points to the information that Indiana's air monitors have collected. Beranek is president of the Indiana Environmental Institute, a third-party forum for analysis and understanding of Indiana's environmental protection laws, rules and policies.

“We have been steadily and significantly improving across this timeframe (past 20 to 30 years), by sulfur dioxides, by nitrogen dioxide, by ozone, by lead and by particulates,” he explains.

“One of the challenges we've had across this time is that the technical community – for better or worse – has been steadily determining that some of those parameters are actually more harmful to human health than we had thought. Therefore, while we had been steadily improving the quality of the air, the indicator of whether we have good air has been steadily tightening. We're at a point where we're just as far from the finish line as we were when we started.”

Bernie Paul, president of B Paul Consulting, LLC and former Eli Lilly & Company air quality expert, calls the process a “broken” one. The federal Clean Air Act of 1970 is written so that all standards have to be re-evaluated on a

five-year basis and that environmental health is the only consideration (cost implications are not allowed to be factored in) when creating ambient air quality standards.

“For a public agency to have to re-evaluate technical information every five years, when it takes 10 years to execute the plans to bring the air quality level down to where they set it, that's a broken process,” he insists.

“A 10-year or even a 20-year review cycle would make more sense, because it takes so long for all of the implementation to be executed. We really can't have a system where you're constantly churning the standard.”

As Indiana's 92 counties currently meet all of the ambient air quality standards, Easterly points out the problems if standards are again tightened to push certain areas out of attainment.



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"Once you're designated non-attainment, you basically can't bring in a new large facility. I used to work in business; we would normally look at those areas and say, 'We're not even going to attempt to locate in those areas,' " he comments.

"We are just so much better off now. We have measurements from the late '60s in many places in the country ... after the Clean Air Act passed, there was a lot more monitoring happening and you can see the improvements there. (The results) are startling to some people; to me they are what you would expect from all the changes that we have made."

Congress should step in and take action to keep environmental and economic concerns more in line, Paul says.

"It's just finding the right mix of things to do so that you're not overly burdening the public, because the public is eventually going to pay for it – whether they pay for it through the cost of electricity or the products that somebody makes and sells. That's important," he stresses.

Purer water

Several IDEM initiatives, including the push for controls on combined sewer overflows (CSO) in communities across the state, have improved Indiana's waterways. CSOs allow untreated sewage to be released into the waterways when it rains. Currently, all but four communities with CSOs have reached an agreement with IDEM for long-term control systems to reduce discharges.

Three IDEM waterway clean-up projects have also been largely successful. Big Walnut Creek in west central Indiana, Pigeon Creek in southwestern Indiana and Lower Clifty Creek in southeastern Indiana were impaired with various forms of pollution, including livestock bacteria, leaking septic systems, chemical pollutants from agriculture, bacteria from manure spreading and more.

"The water (in those three waterways) now measures clean for everything. That was good news for me; we know we can do it. We can clean up the water. These are small areas, but if we know how to do it in a small area, in theory we can do it in a large area," Easterly declares.

These and other positive results are often overlooked to focus on the problems that have yet to be solved.

One of the conceived "problems" stems from one of the monitored and regulated pollutants occurring in nature: mercury. And while mercury regulations cost billions of dollars, the measurable results of those regulations pale in comparison.

Just ask the fish.

"For 30 years, we've been spending money trying to reduce the mercury in the environment," Easterly describes. "The key is the fish. We haven't seen any reduction in the fish concentrations of mercury in 30 years. We shouldn't be driving large expenditures on small benefits that don't even equal the expenditures, especially when our history says we're not going to reduce the concentration in the fish anyway."

Not only is it naturally-occurring, but mercury is also a global pollutant, as it is dispersed around the world when released from a source in one country. The National Resources Defense Council (NRDC) explains that China – which is one of only two countries to continue to mine primary mercury from the ground (the other is Kyrgyzstan) – continues to have a very large supply of mercury with worldwide impacts.

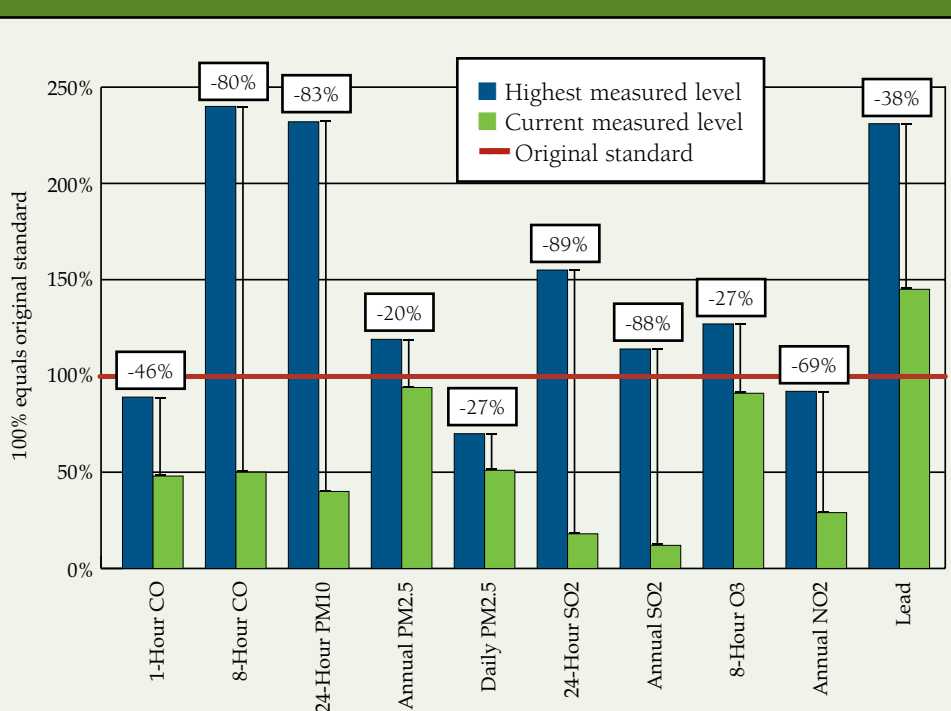
Cleaner land

Leaking underground tanks of petroleum-based products are one of IDEM's big challenges, says Easterly. However, thousands of tanks have been cleaned up through the Excess Liability Trust Fund. Underground storage tank owners pay fees into the fund, and drivers also contribute one penny per gallon of fuel purchased.

Hazardous waste cleanup is an area in which IDEM has excelled throughout the state.

"We use something called the Hazardous Response Trust Fund, but it was funded on the disposal of hazardous waste and

Then and Now: Historic Air Pollution Levels vs. Current Levels



Source: Indiana Department of Environmental Management 25th Anniversary State of the Environment report, 2011

This chart shows the percentage difference between the highest monitored concentration of air pollutants (represented by the left bar) and where those pollution levels are today (represented by the right bar). All levels meet or are below current standards, with the exception of lead.

we've done such a great job of reducing the disposal of hazardous waste that it doesn't have a very large income stream, which is a great success for the environment," Easterly mentions.

He describes his "favorite" clean-up as the VX nerve agent site in Newport, "We had over 1,000 tons of the substance that's supposed to be the most deadly warfare agent ever produced. But it's destroyed now, completely destroyed. There is nothing left to even attempt to reconstruct it. That hazard to Hoosiers is gone forever."

The products that are produced in Indiana and shipped all over the world require a large amount of energy to sustain manufacturing facilities, farms, logistics activities and more. That energy primarily comes from coal; in fact, Indiana is the sixth largest producer of coal in the country and the second largest coal consuming state.

Recently, a study by the NRDC and Physicians for Social Responsibility named Indiana the sixth most toxic air polluter from coal- and oil-fired power plants.

According to Beranek, "The question is, 'So what?' Because these toxics are emitted so high in the air at such a temperature, at such a rate going out, there is dilution (reducing the concentration of a chemical). Now, if their point is that any particular element or the elements in combination are causing high concentrations in some place to fall on the ground, that now gets to the general question of, around the world, at what point do we shift from use of coal to use of blank?"

Beranek notes that an alternative to coal might be more environmentally sound, but won't come without great costs to

Hoosiers. Indiana generates 95% of its energy from coal. There are no nuclear facilities in Indiana; however, Indiana Michigan Power Company's Cook plant just north of South Bend generates some nuclear energy that is utilized in the northeastern portion of the state.

"If you don't use coal, you're making it a lot more expensive to have energy. Coal is extremely valuable for us. We must use coal, but we must also be learning to use less and less of it for Indiana to be economically viable in the future," he indicates.

Challenge from the East Coast

"A lot of our future challenges are communicating the success we've had and trying to keep the national discussion based on the science and the law and not, 'Let's get the people in the Midwest to pay more.' Because that's what a lot of it seems to have deteriorated into," Easterly laments.

A new challenge Indiana faces is the Cross-State Air Pollution Rule (CSAPR), which requires 27 states to reduce power plant emissions that contribute to ozone and/or fine particle pollution in order to benefit the eastern United States. EPA says the cost is outweighed by the health benefits, while many others differ. As of this writing, EPA has adjusted some technical language in the rule to ease pollution restrictions, allowing proposed caps to be exceeded in 2012 and 2013 by allowing credits from other states to be used.

Easterly attests that the rule doesn't afford any extra environmental protection; instead, it is "moving Hoosier money to other states to pay for something that we've been doing all along and it doesn't improve the environment. It just moves money around."

Most of the non-attainment areas in the eastern United States are along the Interstate 95 corridor.

"Somehow, to convince people that non-attainment in the I-95 corridor is due to Midwestern facilities and all the area in the middle is clean, it just boggles my mind. But they have. If you work at (computer) modeling long enough, you can come up with any answer that you want. That's what appears to have happened here," he remarks.

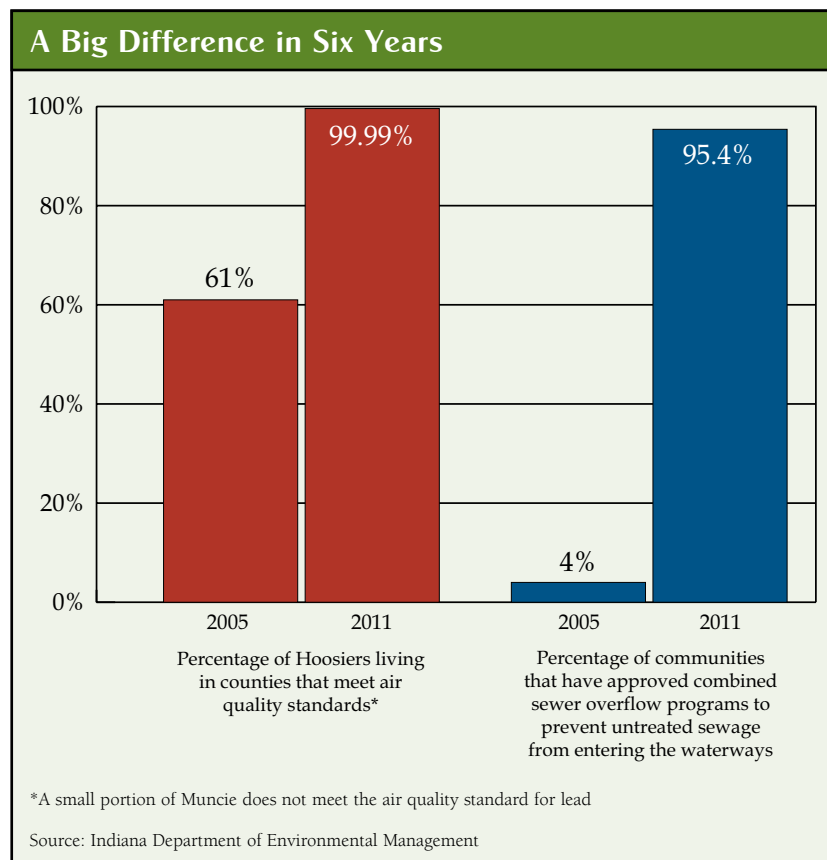
Paul and Beranek see the same results with computer modeling that Easterly describes. While Beranek notes that the science is sound behind the models, the interpretation and analysis varies based on the person doing the work.

Where do we go from here?

The possibility of an increase in the public's financial burden contributes to the fear that surrounds environmental concerns.

"(Hoosiers are worried about) the Cross-State rule having a big economic impact, electric rates going up. I think people worry about that, rates going up like 20% in the next five years, especially when people don't think the air quality is that bad. And they're right, it's not that bad," Paul remarks.

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He looks toward innovation to keep Indiana on a path in which new sources of energy, energy delivery and emission control systems might be possible – as a complete reduction in energy usage isn't likely.

Beranek wants to make sure someone is thinking in the long term as companies, politicians and others have their focus on the present.

Easterly says IDEM's philosophy is to make sure permit holders and the state meet environmental standards and encourage them to seek out even better alternatives.

"Everybody deserves a clean environment. We have to get there in a way society can afford. Eventually, we want to be in a

position where people are better educated on what's important and what's not important and what their part is," he observes. "The environment's cleaner than ever and it's continuing to go that way."

INFORMATION LINK

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