

# 2008 Governor's Awards Recipients

## *Energy/Renewable Resources*

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### *General Motors Powertrain – Bedford*

The GMPT Bedford Powertrain facility implemented an energy reduction project during 2006 and 2007. Two dry hearth furnaces were installed/relocated and four furnaces were eliminated: two of which were inefficient open hearth furnaces resulting in streamlined molten aluminum transfer methods and greater thermal efficiency. These improvements have achieved numerous environmental, health and safety and cost benefits:

1. Significant reduction in furnace natural gas consumption (29%);
2. Reduced generating of dross that requires further processing;
3. Eliminated crusher operation, thus reduced electricity consumption, material movement, and noise pollution;
4. Less manual skimming of impurities from open hearth furnaces;
5. Less fork truck traffic;
6. Reduced air emissions from burning less natural gas;
7. Reduction of processed on-grade materials used;
8. Increased quantity of aluminum chips melted, which would otherwise require additional energy to process into on-grade aluminum; and,
9. Almost \$5.2 million annual savings and over \$1.2 million one-time savings.

### *Rieth Village*

Rieth Village is a biological field station at Merry Lea Environmental Learning Center which is owned and operated by Goshen College, Goshen, Indiana. The three buildings are situated on a 1,150 acre nature preserve and are intended to house undergraduate students studying environmental science and agro ecology. Rieth Village not only provides housing and classroom space; it also serve as an instructor in the environmental science program, illustrating environmentally sustainable practices in the areas of energy efficiency, use of recycled materials, site selection and management, indoor air quality and innovative design. Students from other disciplines such as business and economics frequently tour the facility as well, as do architects, city planners, home builders and other interested community members. In December 2007, Rieth Village received a platinum award from the U.S. Green Building Council, having attained 55 points on the USGBC's LEED 2.1 rating system.

This facility is Indiana's first platinum rated building and was the 42nd in the U.S. The project used 60% less energy than ASHRAE standards require and generates 32% of its own electricity on site using photovoltaic's and wind power. Rain gardens and a cistern keep all storm water on site.

## *5-Years' Continuous Improvement*

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### *Frito-Lay, Inc – Frankfort Site*

The Frito-Lay manufacturing site in Frankfort, Indiana has implemented process and practice improvements in the past five years that have resulted in significant reductions in energy and utility usage (reduction of 40% in SO<sub>2</sub> emissions.) By utilizing a fully implemented EMS, the energy, water, wastewater, and air emissions reductions have been achieved by implementing Objectives and Targets that are driven by the Technical Teams at the two manufacturing plants at the site. The improvements in our wastewater discharge were accomplished through the combined efforts of the Site Green Team and the Frito-Lay's Environmental Compliance and Engineering Group in headquarters. The sulfur dioxide emission reduction was achieved through the efforts of the Green Team to find a cleaner source of Indiana coal for stream generation, and was supported by our local coal supplier, and Frito-Lay's Corporate Energy Purchasing Specialist.

### *Reike Packaging Systems*

Rieke Packaging Systems developed an EMS in 2001 and was certified in April 2002. Rieke has been able to keep the certification active for six years. Over the last six years, Rieke has been able to reduce air emissions, landfill usage, storm water pollution, and hazardous waste disposal. Rieke has been able to reduce the air permitting status from a Title V to a FESOP, the local POTW has reduced our sampling requirements due to continuous compliance with existing permits.

## *Greening the Government*

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### *Indiana Department Of Transportation*

The Indiana Department of Transportation (INDOT) has been actively participating in Greening the Government activities since the signing of the original Greening the Government Executive Order in 1999. Over the years since the original order was signed the INDOT has not only helped develop Greening activities for the state to follow but also expanded its own internal Greening the Government programs to achieve increased waste diversion in the 120 plus INDOT facilities statewide. In 2006 the INDOT implemented an Environmental Assessment program to monitor INDOT facilities related to environmental and safety issues. INDOT Environmental Assessment utilizes a scoring system to rate the efforts of a specific Facility in meeting specific environmental and safety goals. Based on the score the facility is expected to either maintain or improve their effort related to that specific environmental or safety issue.

One specific issue addressed in the Environmental Assessment is the facility's Greening efforts. INDOT facilities are scored on what materials they are targeting for recycling, if they have recycling containers and whether they are properly labeled. Each facility has a

designated recycling coordinator that facilitates the program to ensure materials are recycled as required.

## *Land Use*

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### *City Of Indianapolis*

The former 6.1 acre Ertel Manufacturing facility (Ertel) located at 2045 Dr. Andrew J. Brown Ave., Indianapolis, has long presented redevelopment challenges and environmental concerns for the Martindale-Brightwood neighborhood. From the late 1800's until 2002, industrial facilities at Ertel manufactured, among other things, cannonballs and parts for airplanes and automobiles. Ertel fell into disrepair after the last operator filed for bankruptcy, leaving significant environmental impacts and creating a common attractive nuisance. The City of Indianapolis (City) overcame significant hurdles such as property acquisition, facility demolition, and site remediation that allowed an adjacent property owner to begin a \$19 M expansion of its current operations to be completed in an expedited timeframe. The City teamed with the U.S. EPA, Indiana Brownfield's Program, IDEM, IEDC and the Martindale-Brightwood neighborhood to facilitate the reuse of Ertel. The new expansion will create 53 new jobs for Hoosiers.

### *Valparaiso Redevelopment Commission*

Vale Park Way is a new half-mile stretch of roadway, linking the east and west sides of Valparaiso. Yet, when Vale Park Way opened to traffic, it meant more to the community than new pavement. This new stretch of roadway connected the community as people came together to fulfill a vision that had been just an idea for the last 30 years. The project was a cooperative effort between the community, city government, and the Valparaiso Redevelopment Commission. Respect for the environment was a central theme for the entire project. The project is unique in its design as it doesn't simply connect "Point A" to "Point B." Instead, Vale Park Way was designed in the field to minimize impact on wetlands, woods, and wildlife, incorporating all elements into a harmonious, efficient landscape. The planners and designers went to great lengths to listen to the community and respond to all concerns.

The result is an environmentally friendly, efficient, and beautiful roadway that has been affectionately called a "two minute vacation" in Valparaiso.

## *Outreach or Education*

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### *Bartholomew County Solid Waste Management District*

Bartholomew County Solid Waste Management District – 3R's (Reduce, Reuse, Recycle) Park. Bartholomew County SWMD operates a municipal recycling and yard waste site on a campus near downtown Columbus, Indiana. Over 50,000 residents visit our facilities every year. Our District partnered with Clifty Creek Watershed Project to construct a 3R's Park

adjacent to our recycling center. The park features a pavilion (constructed partially of recycled materials) that showcases four rotating displays: reuses are, recycling collection solutions, products made from recycled content, and reduce/reuse ideas. It also features a mock (demonstration) onsite waste water treatment system using recycled rubber tire chips in lieu of aggregate for the absorption trenches. The focal point of our new park is an urban storm water runoff and improves its quality. Our bios wale is complete with people trail, featuring recycled tire chips, interpretive signage, and metal sculpture featuring recycled bicycle frames.

### *Indiana Math, Science, Technology Education Alliance*

The IMSTEAs Super Mileage Challenge is a project supported throughout the state of Indiana by public schools, universities, businesses, and industry that integrates content related to education, the environment, technology, innovation, design and engineering. The project is unique in that Indiana high school students design, construct and test prototype vehicles that can achieve well over 1,000 miles per gallon. As one headline read several years ago "Hoosier students are coming to the rescue with growing concerns about high gas prices!" The Super Mileage Challenge not only supports the advancement of environmental education but also IMSTEAs mission to improve the mathematics, science, engineering and technological literacy of all Hoosiers.

### *Ray Steup And Staff, WFWA PBS 39 Fort Wayne*

"A Watershed Mentality" PBS Education Program. This 30-min documentary is about the problems of sedimentation and erosion in the Maumee River Basin. The project was undertaken by the WFWA PBS39 Ft. Wayne and the Allen County Indiana Partnership for Water Quality. Funding for this was provided for through the Ft. Wayne City Utilities, the Great Lake Commission (GLS grant sponsorship provided through Ft. Wayne City Utilities), the Great Lakes Commission (GLC grant sponsorship provided through Ft. Wayne City Utilities), and some funding through the USDA. The Great Lake Commission has not funded a video project of this scope prior to "A Watershed Mentality." This project was also new territory for the other partners (exception being PBS 39, they do local production and commercial work.) The Maumee River is the largest single tributary and watershed in the Great Lakes and deposits millions of cubic yards of sediment into Lake Erie yearly.

Sedimentation and erosion are not unique to the Maumee River; they plague most all of the tributaries of the Great Lakes and most of the waterways of the eastern United States.

### *Greater Seymour Chamber Of Commerce*

The Greater Seymour Chamber Recycling and Environmental Committee, in an effort to fulfill its mission to promote environmental stewardship, have sponsored a 100 -mile bike ride for ten years. The bike ride is sponsored by entry fees of the nearly 200 riders and more than 100 local businesses and organizations in Jackson County. The Ride to Recycle,

as the ride has been named, is a joint effort of the Chamber, the Seymour Noon Lions Club, and the Jackson County Bicycle Club. The proceeds from the 2007 Ride to Recycle were offered to the public in the form of grants to initiate or expand a recycling or environmental project in Jackson County. The 6-\$20.00 grants were awarded to the following projects:

- The Town of Crothersville for start-up costs for their curbside recycling program;
- Jonathon Brewer Scholarship Fund for the purchase of a trailer to promote paper recycling in Brownstown;
- Jackson County 4-H to help ELF (Earth Loving Friends) Camp, a county-wide environmental day camp for children in grades K2;
- Jackson Elementary School to help provide a handicap assessable walkway for the outdoor classroom;
- Crothersville Elementary School for the purchase of recycled content rewards for recycling contests for children in grades K-6; and,
- "Wings Over Muscatatuck Festival" for recycling craft supplies for children.

## *Pollution Prevention*

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### City of Carmel

The use of chlorine as a disinfectant in the wastewater treatment process is a standard industry practice. The practice introduces undesirable chemicals in our environment as well as exposed the nearby residents to a catastrophic event should an unfortunate accidental release occur. To help reduce or eliminate the likelihood of this happening, the City of Carmel has adopted an Ultraviolet(UV) method of disinfecting the wastewater effluence. The UV method, while more expensive to adopt, reduces the negative effect wastewater treatment has on our environments. By converting to a UV process we: Eliminated the discharge of chlorine and sulfur dioxide into the White River and into our atmosphere and eliminated the exposure of an accidental release of these hazardous substance and no longer have the emergency management requirements for them.

### *Eli Lilly And Company*

The BHI organization saw an opportunity to reduce both the amount of virgin acetonitrile (ACN) used in the BHI process as well as the volume of Hazardous waste generated. A team was formed to investigate the process surrounding the recovery and reuse of ACN for bulk BHI manufacturing. The project was successfully implemented in March 2007.

### *Jeffboat, LLC*

Jeffboat reduced hazardous waste generation by 11% and reduced solvent use by over 14% while increasing production 33% from year end 2006 to December 31, 2007. The 11% reduction in waste and 14% reduction in solvent are not indexed to production, but are absolute reductions year over year in spite of dramatic increases in production. Our

pollution prevention efforts focused almost entirely on our painting processes and the raw materials and waste streams resulting from painting. Jeffboat changed its production process to employ new spraying equipment which reduced solvent used for clean-up and waste generation from painting. Better training of production personnel also allowed Jeffboat to segregate waste streams at the point of generation thus reducing the volume of hazardous wastes. The waste reduction efforts represent the first step in a comprehensive campaign to reduce all wastes.

Our methods at this point are simple and straightforward, and are paying rich dividends in cost reduction, pollution prevention, and employee safety and health.

### *Monaco Coach*

The process by which Monaco Coach eliminated the use of toxic and flammable solvents like acedonte by replacing it with a water based product called Polychem Acrastrip. The combination of the use of this product with the innovative methods created by Monaco for its effective use, eliminated hazardous waste and improved the safety in the workplace.

### *Toyota Motor Manufacturing, Indiana, Inc*

Toyota Motor Manufacturing, Indiana, Inc. (TMMI) has an ultimate goal of eliminating waste from our production facility by reducing, reusing or recycling all waste generated. Since 2000, TMMI has reduced waste 53% per vehicle. Specifically, waste generation in the past two years has decreased 34% per vehicle. The reduction amounts to an annual waste minimization of 4,600,000 lb. Focusing on pollution prevention and waste minimization, TMMI has implemented many kaizens during the past year, but ferric sulfate reduction in our wastewater treatment plant involved many operators, utilized the Toyota 8-Step Problem Solving method. Modification of wastewater treatment plant's process and standardized work resulted in a 890,000 lb/year waste reduction and an annual cost savings of approximately \$115,000.

## *Recycling/Reuse*

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### *GDC, Inc.*

GDC. Inc. has developed a new product called Enduraprene (TM) that utilizes a patented process to blend recycled tire materials with recycled plastics. This process creates a product that is made for recycled materials but performs like virgin materials. GDC has grown the market for this material to about 4 million lbs of recycled tire and plastic annually in the course of two years.

### *Orange County Recycling Co-Op, Inc.*

One person's passion, followed by invitations to others wanting expanded and more convenient opportunities to recycle, developed into a 154 member cooperative over the past

18 months. In an effort to recycle a variety of items, supplementing the opportunities provided by the Orange County Solid Waste Management to recycle cardboard, newspaper, and plastic, several people came together to form a board for the Orange County Recycling Cooperative, Inc. in 2006. The Grand Opening of the recycling center was in May, 2007, allowing families and businesses to recycle the following items day or night: Cardboard; plastic #1 & 2; newspaper; mixed paper; junk mail; magazines, catalogs; tin; aluminum; scrap metal; books; film; plastic, plastic bags; bubble wrap, shredded paper; packing peanuts; appliances; techno trash; and car batteries.

Opening a store to sell items people want to keep out of the landfill has been so successful that the sales pay our bills! A matching grant from IDEM allowed the Co-op to purchase equipment for starting up the business. Many members have volunteered many hours working at the recycling center that has become a gathering place, developing a sense of community.

### *Mother Earth, LLC.*

The Green Tech Transfer and Recycling, LLC (Green Tech) is located on the former Stedebaker Plant 7 facility in South Bend, Green Tech is a reuse/recycling and transfer station for concrete, construction debris, cardboard, white goods, metals, paper, plastics, glass, aluminum cans, computers and other reusable materials to reduce dependency on landfills. Green Tech property was itself recycled by its parent company, Mother Earth LLC, from the abandoned 33-acre former Studebaker Plant 8 Facility. Conversion of the abandoned 750,000 square foot building into an 85,000 square foot building by demolition was completed with only 1% of the materials disposed of in a landfill and with 99% of the demolition materials being reused or recycled.