



# Achieving Pollution Prevention Success

## Establishing a Byproduct Synergy Program for Reuse of Manufacturing Byproducts in Michigan

### Project Description

Funded by a U.S. Environmental Protection Agency (EPA) Pollution Prevention (P2) grant, the Michigan Department of Environmental Quality (MDEQ), in partnership with the Tri-County Regional Planning Commission (TCRPC), piloted a Byproduct Synergy (BPS) program to reuse manufacturing byproducts. The pilot's goal was to help manufacturers match byproduct streams to other facilities' needs for raw materials, reducing quantities destined for disposal and lowering the costs associated with purchasing raw materials. The BPS program identified, inventoried and established public and private members -- several businesses, townships, power companies, and water and sewer departments -- and attempted to create specific synergistic relationships between its members.

#### Establishing the Michigan BPS Network

To form a Michigan-based BPS program, MDEQ and TCRPC created a steering committee consisting of manufacturers, municipal operations, public works departments, an area manufacturing council, and several junior colleges. The committee, which typically met quarterly, contacted existing BPS networks to identify best practices, establish relationships, and recruit and train area municipal and business leaders. The BPS network includes approximately 40 members, representing manufacturing businesses, several municipal governments, colleges, and non-profit organizations. TCRPC's existing economic development and environmental networks were instrumental in creating Michigan's BPS program. The Lansing Board of Water and Light (LBWL), a network member, made a presentation at a BPS showcase event toward the end of the grant period and helped create marketing and technical assistance materials. A one page summary of the BPS network is available on TCRPC's website: <http://tri-co.org/BPS.html>.

#### Mentor Relationship

The BPS steering committee established a mentor relationship with the former Director of Sustainability for the Chicago Manufacturing Center, who in turn conducted BPS training for the committee. The committee also established an information sharing effort with a Minnesota-based BPS network called the Waste Reduction Collaborative.

#### Educational Events

TCRPC staff facilitated four workshops to educate potential and existing participants about the BPS program and to provide direct networking opportunities between companies that were identified to have potential synergies. During each workshop, participating organizations were matched with five "speed dates" where they had short discussions about their BPS wants and needs, and participated in an additional networking period at the end of each event for more in-depth discussions and follow up contacts.

#### On-Site BPS Audits

After developing a BPS audit methodology and set of tools, LBWL and TCRPC audited facilities in the greater Lansing area to collect information on byproducts produced, and identify and promote possible synergies among facilities. Site visits were made to pre-identified businesses and public entities that agreed to participate in the audit. In most cases, preliminary information, including the BPS Program Facility Baseline Survey, was

#### Snapshot

**Grantee:** Michigan Department of Environmental Quality

**Title:** Michigan Byproduct Synergy

**EPA Funding:** \$60,000

**Total Funding:** \$120,000

**Project Period:** 10/1/2011 – 9/30/2014

**EPA Pollution Prevention<sup>1</sup> Grant Number:** 00E00931

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provided to the businesses to facilitate data collection during the on-site audits. Each on-site audit included a discussion of the BPS project, development of a preliminary list of input/output materials, and brainstorming of ideas and possible synergies, along with a tour of each facility. Six on-site BPS audits were completed during the grant period.

#### **Results and Lessons Learned**

Although no actual BPS trading relationships materialized during the grant period, the three-year project established an ongoing BPS program in Michigan. The project also achieved the following: recruited and established 40 participating network members and a possible 64 byproduct streams with potential beneficial trading opportunities, and trained businesses, professional networks, and municipalities in potential byproduct synergies. More information about the ongoing BPS program can be obtained by contacting TCRPC's Christine Spitzley at (517) 393-0344, Ext. 15 or going to the TCRPC BPS program website at: <http://www.tri-co.org/BPS.html>

<sup>1</sup> Pollution Prevention involves the reduction or elimination of pollution at the source by modifying production processes, using less toxic substances, implementing resource conservation techniques, conserving water and energy, and reducing greenhouse gases. Energy and water conservation, hazardous materials and greenhouse gas reductions, and cost savings are all benefits of a P2 approach. EPA provides grant assistance to states and tribes to help businesses identify and implement P2 practices.