

## **Introduction**

In 2002, the Indiana Recycling Coalition (IRC), began a process to develop strategies for managing electronics scrap (e-scrap) generated in the state. At the time, it was estimated that nearly 12 million personal computers would become obsolete in Indiana between 1997 and 2007. Additionally, many other electronic devices like televisions, VCRs, copy machines, cell phones and video games, would also fall into disuse. The burgeoning problem of dealing with this quantity of end-of-life electronics (e-scrap) posed a challenge for every businesses, industry, government agency, organization and individual in Indiana.

In May 2003, the IRC kicked off its E-Scrap Action Program (ESAP), which brought together key stakeholders across the state who were affected by the lack of infrastructure and support for proper electronics management (reuse, recycling and proper disposal). This group worked for more than a year to develop strategies for end-of-life management for computers and other consumer electronic products. The IRC leadership recognized that developing a strong and sustainable infrastructure is a critical component in building a cost-effective and efficient statewide management system.

The IRC continues to serve as an important information source for the more than 100 stakeholder organizations participating in the ESAP, including local, state and federal government agencies; non-profit and for-profit reuse and recycling organizations; universities; businesses that generate e-scrap; and others.

The stakeholder process has been very successful in helping initiate one-day and on-going e-scrap collection and recycling activities; educating e-scrap generators about the laws and liabilities of proper electronics management; assisting reuse and recycling organizations to institute “best practices” in their operations; and helping communities improve their e-scrap management practices.

This E-Scrap Action Program Toolkit brings together all the information compiled and developed during the stakeholder process into a single document. It is intended to provide valuable information and resources to those starting up or expanding e-scrap collection and recycling programs. We hope you find it helpful as you seek to learn about proper e-scrap management techniques, laws, challenges, and strategies.

The complete ESAP Toolkit will also be available on the IRC’s website at [www.indianarecycling.org/toolkit](http://www.indianarecycling.org/toolkit)

## **Indiana Recycling Coalition**

The Indiana Recycling Coalition (IRC) was established as a 501(c)(3) not-for-profit organization in 1989, and since then has become an important voice and resource in waste reduction, reuse and recycling issues across the state. The IRC represents concerned citizens, state and local government officials, business, industry, and environmental groups. The IRC's mission is to support source reduction, reuse, composting, and recycling activities in Indiana. To encourage integrated recycling, the IRC supports buying recycled-content products, and the collection and remanufacturing of recyclable materials. The goal of this support is to conserve our natural resources, decrease reliance on final disposal and to encourage environmental responsibility. The IRC supports this mission by: fostering a diverse and active membership; offering forums for discussion, networking, and education; supplying materials to support the development of solutions at the local, regional, and state levels; and developing advocacy positions to serve as a voice of the membership.

The Indiana Recycling Coalition identified e-scrap as a priority issue for the state of Indiana, developed advocacy statements on e-scrap management issues, and was the lead organization for the E-Scrap Action Program.

## **E-Scrap Action Program Partners**

The following organizations, agencies and companies were Partners in the E-Scrap Action Program through financial and in-kind contributions. The ESAP would not have been possible without these important financial partners.

Indiana Department of Environmental Management  
The Virtual Scavengers Project  
Chesapeake Electronic Recycling  
Goldsmith Group  
Asset Forwarding  
Indiana Department of Commerce  
U.S. Environmental Protection Agency, Region 5  
Lake County Solid Waste Management District  
East Central Indiana Solid Waste Management District  
Solid Waste Management District of St. Joseph County  
LaPorte County Solid Waste Management District  
Monroe County Solid Waste Management District  
Bartholomew County Solid Waste Management District  
Vanderburgh County Solid Waste Management District  
Johnson County Solid Waste Management District  
Randolph County Solid Waste Management District  
Dubois County Solid Waste Management District

## **E-Scrap Action Program Steering Committee**

The ESAP Steering Committee developed the project goals, objectives and timelines. In addition, the steering committee developed stakeholder meeting agendas and invitations, assisted with set up and take down of stakeholder meetings, and reviewed the Toolkit sections. Most of the steering committee members worked on a volunteer basis.

Terry Duffy, Whitewater Environmental Council, Steering Committee Co-chair, and  
IRC Board Liaison  
Amanda Hennessy, Steering Committee Co-chair  
Tiffany Sorge, Indiana Department of Commerce  
Michelle Cohen, Indiana Recycling Coalition  
Rob Howe, Chesapeake Electronic Recycling  
Mark Vander Kooy, Asset Forwarding  
Eric Goldsmith, Goldsmith Group  
John Crooks, The Virtual Scavengers Project  
Ken Moss, Indiana Department of Corrections  
Mark Mehall, Solid Waste Management District of St. Joseph County  
Jim Parker, NuGenesis  
Julie L. Rhodes, contractor to the IRC's E-Scrap Action Program

## **E-Scrap Action Program Subcommittee Participants**

### **Best Practices**

The Best Practices Subcommittee met every two to four weeks throughout the stakeholder process and developed the series of "Best Practices" documents, which are contained in Section 4. This dedicated group of volunteers believed strongly in the need to develop the highest standards in e-scrap management throughout the state to help generators of all types meet or exceed current regulations and practices.

Rob Howe, Chesapeake Electronic Recycling and Subcommittee Co-chair  
Eric Goldsmith, Goldsmith Group and Subcommittee Co-chair  
Terry Gray, Indiana Clean Manufacturing Technology and Safe Materials Institute at  
Purdue University  
Wendy Smith, Cornerstone Environmental Health and Safety  
Jay Schlatter, Goodwill Industries of Michiana, Inc.  
Mark Dix, East Central Indiana Solid Waste Management District  
Mark Mehall, Solid Waste Management District of St. Joseph County  
Dan Wasvick, Allen County Solid Waste Management District  
Julie L. Rhodes, contractor to the IRC's E-Scrap Action Program

## **Reuse**

The Reuse Subcommittee developed recommendations and information to help increase reuse capacity in Indiana, and to encourage reuse of electronic equipment before recycling to meet environmental, economic and social objectives.

John Crooks, The Virtual Scavengers Project

Eric Goldsmith, Goldsmith Group

Mark Vander Kooy, Asset Forwarding

Julie L. Rhodes, contractor to the IRC's E-Scrap Action Program

## **E-Scrap Action Program**

### **Participating Stakeholder Organizations**

The following organizations, agencies and companies have participated in the E-Scrap Action Program stakeholder process. Each stakeholder meeting had between 40 and 60 participants. Representatives of the groups listed below attended at least one of the stakeholder meetings. Most of those listed below attended all or most of the meetings held over the year.

Admetco

Allen County Solid Waste Management District

ARK, Inc.

Asset Forwarding

Association of Indiana Solid Waste Management Districts

Ball State University

Barnes & Thornburg, LLP

Bartholomew County Solid Waste Management District

Baxter Pharmaceutical Solutions

Brown County Solid Waste District

Camp Atterbury

Capitol City Metals

Chesapeake Electronic Recycling

Citizens Gas & Coke Utility

City of Indianapolis

City of Indianapolis, Department of Public Works

Cooper Standard

Cornerstone Environmental Health & Safety

Covanta Energy

Cyber Sources, Inc.

Daimler Chrysler, Kokomo

Dearborn County Solid Waste Management District  
Delco Remy International, Inc.  
Dlubak Glass Company  
Dubois County Solid Waste Management District  
Earth Day Indiana, Inc.  
East Central Indiana Solid Waste District  
Eli Lilly and Company  
End of Life Electronics – Midwest  
Epson, Environmental and Quality ISO  
Free Geek Michiana  
Fulton County Solid Waste Management District  
Goldsmith Group, Inc.  
Good Point Recycling  
Goodwill Industries of Central Indiana  
Goodwill Industries of Michiana, Inc.  
Hammond Development Corporation  
Hoover Family Foundation  
Howard County Solid Waste Management District  
Spill Recovery of Indiana  
Indiana Association of Cities and Towns  
Indiana Business Modernization & Technology Corp.  
Indiana Department of Commerce, Energy & Recycling Office  
Indiana Department of Corrections  
Indiana Department of Environmental Management, Office of Land Quality  
Indiana Department of Environmental Management, Office of Pollution  
Prevention and Technical Assistance  
Indiana Department of Administration, Indiana Greening the Government  
Program  
Indiana State Surplus  
Indiana State University  
Indiana University  
Indianapolis Casting Corp.  
Indiana Society of Hazardous Materials Manager  
Ispat Inland (East Chicago)  
J & S Computer Assistance  
Jay County Solid Waste District  
Johnson County Solid Waste Management District  
Keramida Environmental  
Kimball Electronics Automotive  
Kimball International, Inc.  
Knauf Fiber Glass  
Kosciusko County Solid Waste Management District

Lafayette Instrument Company  
Lake County Solid Waste District  
M3V, LLC  
MCE, Inc.  
Monroe County Solid Waste Management District  
Noble Silver Company  
Northwest Indiana Solid Waste District  
NuGenesis  
Oakland County Waste Resource Management Division  
Ohio Department of Natural Resources  
Okaya Electric America, Inc.  
Onyx Special Services  
Paper Trail Group / Material Management & Recovery  
Perry County Recycling (Ohio)  
Porter County Solid Waste Management District  
Product Stewardship Institute  
Pulaski County Recycling  
Purdue University- Indiana Clean Manufacturing Technology and Safe  
Materials Institute  
Purdue University, Environmental Management  
Purdue University, School of Industrial Engineering  
Raytheon Technical Services Company LLC  
Recycle America - eCycling Services  
Reilly Industries, Inc.  
Republic Recycling  
ReUse Industries  
Rural Community Assistance Program  
SAIC-Science Applications Int'l Corporation  
SES Environmental  
Shelby County Solid Waste Management District  
Solid Waste Management District of St. Joseph County  
Southeastern Indiana Solid Waste Management District  
Special Waste Systems  
Spill Recovery of Indiana  
Subaru Automotive  
Technology Integration Group (TIG)  
Temple Inland  
The Virtual Scavengers Project  
Thomson, Inc  
Three Rivers Solid Waste Management District  
Tipton County Solid Waste Management District  
Toyota Motor Manufacturing

U.S. Environmental Protection Agency, Region 5  
Vanderburgh County Solid Waste Management District  
Waste Management, Inc.  
Wayne County Solid Waste Management District  
West Central Solid Waste District  
Whitewater Environmental Council

*The Indiana Recycling Coalition thanks each and every one of these organizations and individuals. Without their time, energy, expertise and dedication, the E-Scrap Action Program would not have been possible.*