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January 2015: Annual Report Edition

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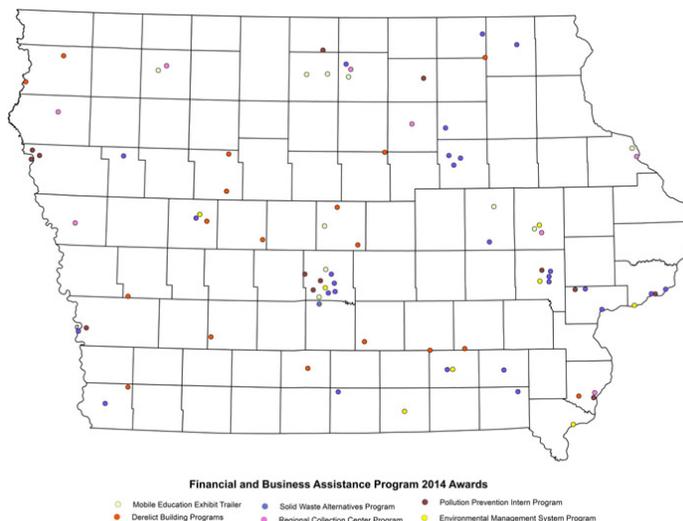
Executive Summary

Welcome to the 2014 Year in Review issue of our newsletter. We hope you find it interesting and useful. While the main focus of this issue is to keep our stakeholders abreast of all the activities and accomplishments of the past year, we also see it as an opportunity to let you know that we are also looking forward. A new year is like a blank page: full of opportunity to make changes and to continually improve. So in the upcoming year, we will continue to provide the programs we always have but with customer service and efficiencies in mind. In addition, we will be providing multiple training and workshop opportunities that are timely and relevant to today's organizations. Finally, we will be focused on food waste which is a growing issue of concern for Iowa and the United States. We commissioned a food waste generation study of the industrial, commercial and institutional sectors. Analysis of study results combined with mapping generator and existing organics management infrastructure, will allow the department to strategically focus efforts to assist managing food waste for its highest and best use in the most efficient and economical manner. The study is scheduled to be completed this summer.

Below is a sampling of our 2014 highlights that are detailed further in the newsletter:

- Participation and interest in the 3rd year of the Derelict Building Grant continues to be robust. We received 40 applications in the third year requesting \$1,854,598.00. We were able to fund 17 projects totaling \$ 548,111.50 with cash matches of \$546,506.50. 11 of the 17 projects funded in 2014 have been completed and combined for a total of 5070.35 tons diverted and a landfill savings of \$119,286.50.
- Investing over \$1.5 million dollars and leveraging almost \$ 915,000 dollars of local share in Solid Waste Alternatives Program (SWAP) grants and loans to implement waste reduction, recycling, market development, and public education projects across the state.
- The Iowa Waste Exchange and its representatives matched over 115,000 tons of materials in 2014, and diverted these items from the landfill. In total, they saved Iowa companies a little over \$2.3 million in disposal costs in 2014.
- Saving Iowa business and Industries over \$1.6 million dollars in implemented savings through projects in the 2014 Pollution Prevention (P2) Intern program.
- Over \$500,000 in program investment to financially assist Regional Collection Centers (RCCs) in managing household hazardous materials (HHMs) generated by households and eligible businesses. Over 7 million pounds of HHMs were removed from the solid waste stream for proper management through the RCC program.

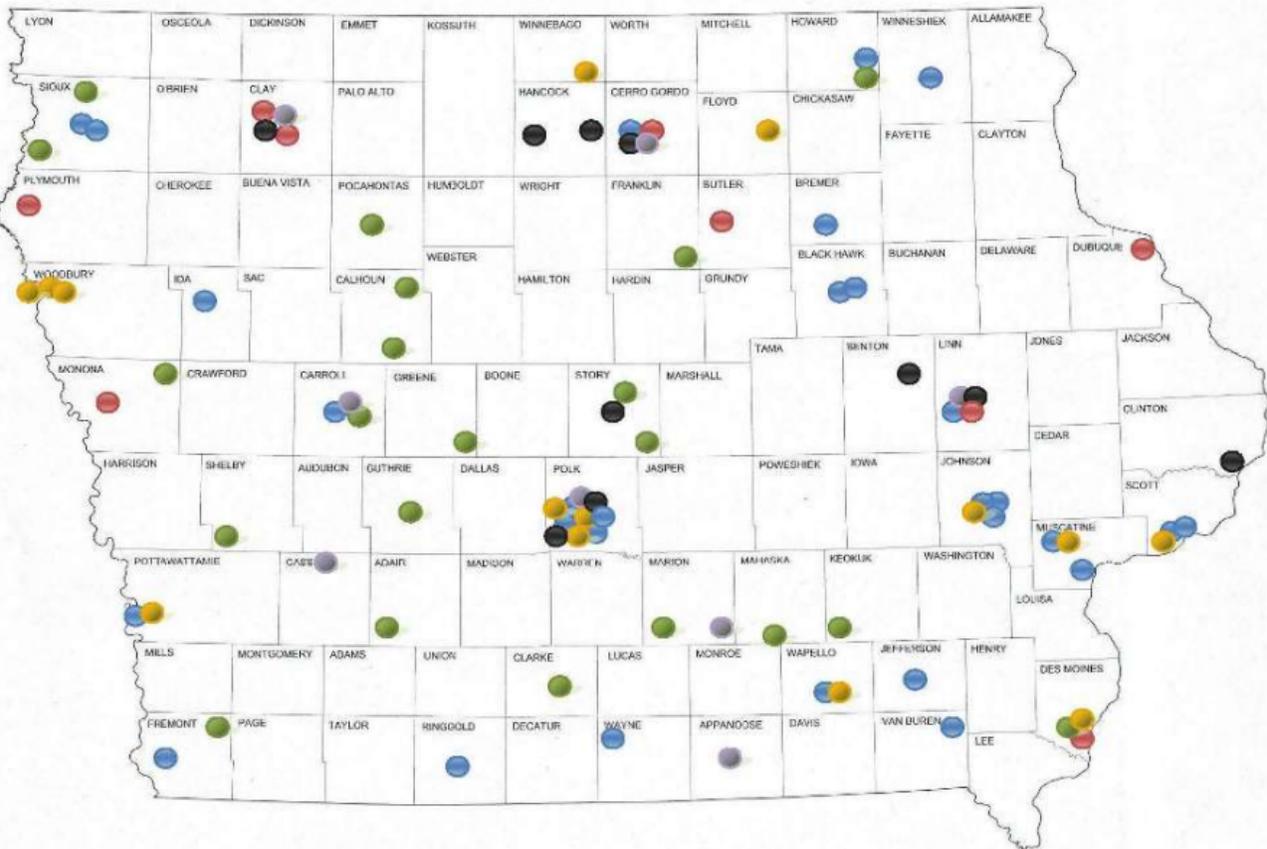
The map below shows locations of various FABa projects and the investments made in communities across the state.



If you would like any further information on the programs or the stories reported in the newsletter, do not hesitate to contact me or one of the FABa team members. We welcome your questions or feedback. This newsletter is for you, so if there's something you would like to see, please let us know.

Jennifer Wright
 Financial and Business Assistance Supervisor
 Jennifer.Wright@dnr.iowa.gov

FABA Programs - Project Awards 2014



- Solid Waste Alternatives Program
- Derelict Building Grant Program
- Regional Collection Center Program
- Environmental Management Systems Program
- Pollution Prevention Intern Program
- Mobile Education Exhibit

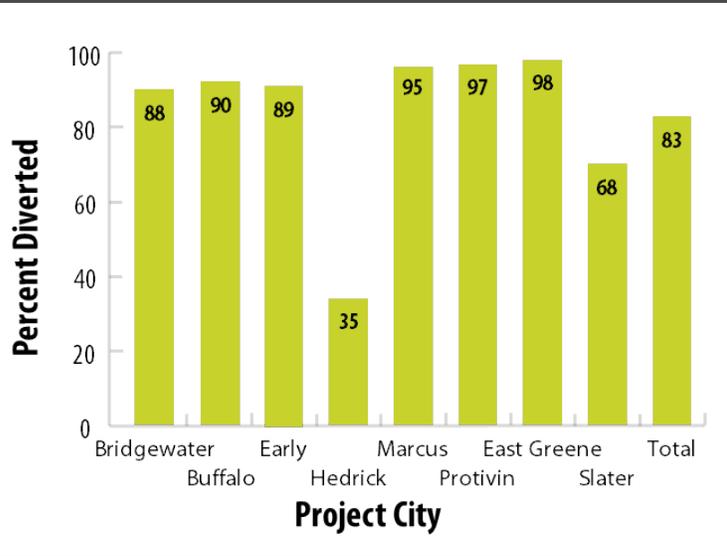
DERELICT BUILDING GRANT PROGRAM

The Derelict Building Grant Program (DBGP) works with communities of 5,000 or fewer people who need assistance with addressing abandoned commercial or public buildings all while diverting construction and demolition materials from the landfill.

Thirteen deconstruction/renovation projects were completed in 2014. The cities of Buffalo, Early, Marcus, Slater and Zearing carried over from the previous grant round, while the cities of Bridgewater, Glidden, Hedrick, Imogene, Osceola, Protivin, and the East Greene Consolidated School District were 2014 grantees that completed their projects. The projects combined for an average diversion rate of 83 percent.

In total, more than 5,664 tons of construction and demolition materials (wood, brick, concrete, metal, etc.) were diverted from area landfills providing a total savings exceeding \$150,000 for the projects completed in 2014.

LANDFILL DIVERSION PERCENTAGES: 2014 PROJECTS



FOR MORE INFORMATION

To learn more about the Derelict Building Grant Program, go to www.iowadnr.gov/FABA

DNR Contact:
Scott Flagg • 515.725.8318 • Scott.Flagg@dnr.iowa.gov

2014 SUCCESS CITY OF GLIDDEN

The City of Glidden promotes healthy activities through its Live Healthy teams but unfortunately residents had to travel out of town to find places for exercise and recreation. Based on local input the City decided to take an abandoned building in its downtown corridor and with funding assistance from the DBGP, renovate it into a health and wellness center that features an indoor walking track, weight rooms, shower facilities, and an exercise classroom.



Before photo of the abandoned building in Glidden



After photos of the building renovation

ENVIRONMENTAL MANAGEMENT SYSTEMS & COMPREHENSIVE PLANNING

Thirteen Solid Waste Agencies and Permitted Facility Service Areas now take part in the Solid Waste Environmental Management System (EMS) Program. EMS is a voluntary alternative to the traditional Comprehensive Planning system for Iowa. The EMS program was created through innovative legislation crafted by a diverse group of stakeholders in 2008.

EMS program participants utilize a management framework based on established procedures that emphasize continual improvement in six environmental “component” areas including:

- Yard Waste Management
- Hazardous Household Waste Collection
- Water Quality Improvement
- Greenhouse Gas Reduction
- Recycling Services
- Environmental Education

The program participants set program objectives (goals) and report annually on the steps and methods used to accomplish those goals. Participants collect results on whether or not targets were achieved, then reevaluate goals and set new ones.

EMS program participants receive a number of incentives and benefits to assist them in their quest for continuous improvement:

- Potential reduced landfill tonnage fees paid to DNR
- Eligible to apply for special EMS Grant Funds
- Potential reduced Comprehensive Planning reporting requirements
- Special training and workshops with EMS consultants
- Other benefits such as environmental improvements

The EMS program is a voluntary alternative to Comprehensive Planning. The program is open to Solid Waste Planning Areas and Permitted Facility Service Areas. **Applications for the next round of Tier 1 participants are due February 15.**



Above: Metro Waste Authority developed an Adopt-A-Stream program to facilitate annual clean-ups throughout the MWA service area.



TIER 2 PARTICIPANTS:

- Iowa City Landfill and Recycling Center (LF Service Area)
- Northern Plains Regional Planning Area
- South Central Iowa Solid Waste Agency
- Cass County Environmental Control Agency*
- Cedar Rapids Linn-County Solid Waste Agency (LF Service Area)*
- Dubuque Metropolitan Area Solid Waste Agency*
- Metro Waste Authority (LF Service Area)*
- Rathbun Area Solid Waste Management Commission*
- Waste Commission of Scott County (LF Service Area)*
- Landfill of North Iowa
- Ottumwa Wapello County Solid Waste Commission * Pilot

TIER 1 PARTICIPANTS:

- Great River Regional Waste Authority
- West Central Iowa Solid Waste Management Association

FOR MORE INFORMATION

To learn more about EMS and Comprehensive Planning, go to www.iowadnr.gov/SWEMS

DNR Contact:

Leslie Goldsmith • 515.725.8319
Leslie.Goldsmith@dnr.iowa.gov

2014 EMS SUCCESS

IOWA CITY LANDFILL AND RECYCLING CENTER

EMS participant Iowa City Landfill and Recycling Center (Iowa City) participated in the Environmental Protection Agency's Food too Good to Waste Program. Iowa City spearheaded a six-week Pilot Project that included 52 households. The project yielded valuable data and information measuring food waste disposal practices of individual families. Project managers say the next challenge will be creating a sustainable path to reduce the amount of food waste going to the landfill. (Photo courtesy Iowa City LF and Recycling Center)

Note: In order to make the Comprehensive Planning Online Submittal Log In process more secure, changes are coming soon! The good news is that passwords will be more accessible in the future – you won't need to contact DNR to get them. A separate letter will be sent to Planning Area contacts on this topic

For more information on Comprehensive Planning, visit <http://www.iowadnr.gov/InsideDNR/RegulatoryLand/SolidWaste/ComprehensivePlanning.aspx>

2014 COMPREHENSIVE PLANNING SUCCESS

CITY OF NEWTON SANITARY LANDFILL

Recently the City of Newton Planning Area took full advantage of the Plan Update process. In addition to required public meetings, Public Works Operations Superintendent Jody Rhone conducted an informal survey of landfill customers regarding potential upgrades to the landfill facility.

One result was the construction of a Customer Convenience drop off site for non-commercial customers. Now operators driving heavy equipment on the working face of the landfill don't need to worry about a residential customer dropping off a couple bags of trash there. Instead, that customer may pull up near the scale and drop those bags into a roll-off container – a neater, cleaner process for all.

Newton is working to keep their website flexible. They added a link to DNR's Iowa Greenlist to their site.

To help get the public engaged and to send them important information, the City of Newton uses "Notify Me" software. People can sign up to be emailed information about special landfill hours or other announcements. See it here: <http://www.newtongov.org/list.aspx>



Above: The City of Newton's Customer Convenience drop-off for non commercial customers. When roll-off containers are full, they are dumped at the landfill.

Curbside Collection Results

- Bin over bag
- ~1,000 pounds of food waste diverted
- Data important for future expansion to curbside customers (15,000 households)



Before



After

COMPREHENSIVE PLANNING

Round 7 of the Comprehensive Planning Update process began in September of 2013 and is well underway. Iowa Code requires that every five years, cities and counties must file a plan detailing how they will implement an integrated comprehensive solid waste program in their area.

DNR staff reviews each Comprehensive Plan Update upon receipt to determine if it meets Iowa Code and Rule. At the same time, staff takes this opportunity to provide assistance and to inform Planning Area officials about pertinent programs and success stories from cities and facilities across the state.

DNR staff members are available year-round to provide information and to assist Planning Areas and individual cities and counties with Comprehensive Plan Updates, recycling and waste diversion activities.

SAFE, SMART SOLUTIONS FOR IOWA



HOUSEHOLD HAZARDOUS MATERIALS PROGRAM FISCAL YEAR 2014

Household Hazardous Materials (HHMs) are found in nearly every home; under sinks, in closets, basements and garages. Through local partnerships with the Iowa Department of Natural Resources (DNR) HHM program, Iowa citizens are able to access Regional Collection Centers (RCCs) in 93 of Iowa's 99 counties for proper management of HHMs to protect public health and the environment.

Last year, Iowa residents and small businesses dropped off more than 7 million pounds of toxic, flammable, corrosive and reactive materials at their local facilities — the equivalent of 411 garbage trucks. If lined up on an Iowa road, there would be bumper-to-bumper hazardous materials for almost 3 miles!

This report discusses actions undertaken and results from the DNR's HHM program and its stakeholder partners in Fiscal Year 2014.



The table below breaks down disposal methods and amounts of HHMs collected by Iowa RCCs, including the Northern Plains RCC in north central Iowa (pictured above).

WHAT EXACTLY IS A HOUSEHOLD HAZARDOUS MATERIAL?

HHM is a term defining common household products that have one or more of the following characteristics:

TOXIC: poisonous, causing cancer or other health problems

CORROSIVE: destroys human tissue or corrodes metal

FLAMMABLE: easily ignitable

REACTIVE: explosive through exposure to heat, sudden shock, pressure or comes into contact with incompatible chemicals

Household hazardous waste (HHW) is commonly defined as waste from residential sources composed of old or unwanted products that exhibit any of the characteristics of HHMs. In Iowa, businesses generating small amounts of hazardous waste are included in the definition of HHW and are eligible to participate in DNR HHM programs.

REGIONAL COLLECTION CENTER FY 2014 SUMMARY & ACCOMPLISHMENTS

MATERIALS MANAGED BY HAZARD TYPE

TOXIC insecticides, pesticides, poison	165,753 lbs.
CORROSIVE drain cleaners, mercury	110,694 lbs.
FLAMMABLE lighter fluid, aerosols, thinners, oil-based paint	392,467 lbs.
REACTIVE pool chemicals, toilet bowl cleaners, ammonia	5,878 lbs.

MATERIALS MANAGED BY COMMON PRODUCT TYPE

E-WASTE computers, televisions, cell phones	2,137,986 lbs.
FLUORESCENTS	141,355 lbs.
LEAD-ACID BATTERIES	181,328 lbs.
MOTOR OIL	582,481 lbs.
OTHER MATERIALS sharps, scrap metals, oil filters, antifreeze, rechargeable batteries	1,771,004 lbs.
PAINTS	1,528,543 lbs.

HHM DISPOSAL SUPPORT

HHMs REUSED LOCALLY THROUGH EXCHANGE/SWAP SHOP The majority of RCCs make usable HHMs available to residents at no charge, providing an opportunity to reuse the HHMs for their intended purpose and reducing RCC disposal cost.	424,083 lbs.
CONTRACTED HHM DISPOSAL HHMs that are removed from an RCC facility by a licensed hazardous waste contractor for treatment at a hazardous waste facility outside of Iowa.	2,452,503 lbs.
HHMs MANAGED LOCALLY Non-hazardous material such as latex paint or hazardous material that an RCC manages with a local business; including oil, oil filters, lead acid batteries or scrap metal cans from bulking paint.	4,180,626 lbs.

TOTAL AMOUNT OF HHMs MANAGED 7,057,212 lbs.

REGIONAL COLLECTION CENTERS IN IOWA

Regional Collection Centers (RCCs) are local permanent collection facilities designed to assist the public and conditionally exempt small quantity generator (CESQG) businesses with proper management and disposal of HHMs. RCCs accept specific types of hazardous waste for disposal; either through local outlets or through contracted service, provide a materials exchange (Swap Shop) and educate citizens about proper purchasing and management for HHMs.

Currently 28 main facilities and 39 satellite facilities operate across Iowa, serving a total of 93 counties. Last year, more than 7 million pounds of HHMs were removed from the solid waste stream, including 424,083 pounds of materials placed in RCC materials exchanges as a no-cost alternative to buying new HHMs for Iowa citizens.

For local RCC contact information and service areas, go to www.safesmartolutions.org.

2014 RCC INNOVATION/IMPROVEMENT & ESTABLISHMENT GRANT RECIPIENTS

1 BUTLER COUNTY: \$6,971 for improvements to operational efficiencies including the purchase of a supplied air system, drum caddies for fluorescent tubes and a pressurized eye wash/drench hose.

2 CEDAR RAPIDS/LINN COUNTY: \$8,728 for the purchase of an electric pallet staker to increase efficiencies in loading and unloading materials.

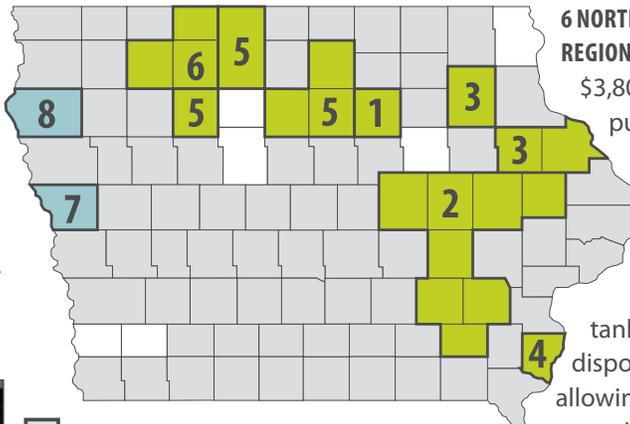


the air system, and shelving to supplement the current exchange/swap area.

4 HAZ CHEM CENTER OF SE IOWA: \$5,990 for equipment that allows workers to increase unloading and processing speed for customers.



5 LANDFILL OF NORTH IOWA: \$2,907 for the purchase of a supplied air system to allow staff to process material more efficiently and increase customer convenience.



- FACILITY OPERATIONS FUNDING
- INNOVATION/IMPROVEMENT GRANT
- ESTABLISHMENT GRANT

3 DUBUQUE COUNTY: \$6,070 for the purchase of a portable supplied air system, a cabinet to store

7 MONONA COUNTY: \$9,450 for construction of an indoor sorting and receiving area, allowing for year-round collection of materials from households and qualifying small businesses.



8 PLYMOUTH COUNTY: \$43,700 for the completion of a RCC sorting and receiving area, purchasing a mobile unit for community collection events, supplies, equipment and a hazardous storage building.



6 NORTHERN PLAINS REGIONAL LANDFILL: \$3,800 for the purchase of bulking & recycling systems for aerosol cans and propane tanks; decreasing disposal costs and allowing empty cans to be recycled.



HHM PROGRAM INVESTMENT FOR RCC FACILITIES

Establishment Grants	\$53,150
Innovation/Improvement Grants	\$34,467
Facility Operations Funding	\$450,493
TOTAL PROGRAM INVESTMENT FOR FY 2014*	\$538,110

* The DNR's RCC Facilities are funded through solid waste tonnage fees remitted to the solid waste account of the Groundwater Protection Fund.



SAFE, SMART,
SOLUTIONS FOR IOWA

www.iowadnr.gov

www.safesmartolutions.org

IOWA DEPARTMENT OF NATURAL RESOURCES
502 E. 9th St. Des Moines, IA 50319 | (515) 725-8200

IOWA WASTE EXCHANGE

The Iowa Waste Exchange (IWE) is the product of a partnership of the Iowa DNR and the Economic Development Authority, with assistance from the Iowa Waste Reduction Center.

Many industries, businesses, and institutions dispose of items and materials that others can use. IWE Resource Specialists help anyone looking to obtain specific items or materials, and match them up with anyone who has items or materials they are looking to give.

Businesses, schools, hospitals, communities and individuals are encouraged to take advantage of the IWE's free, non-regulatory, and confidential services.

IWE Resource Specialists can provide a wide range of assistance:

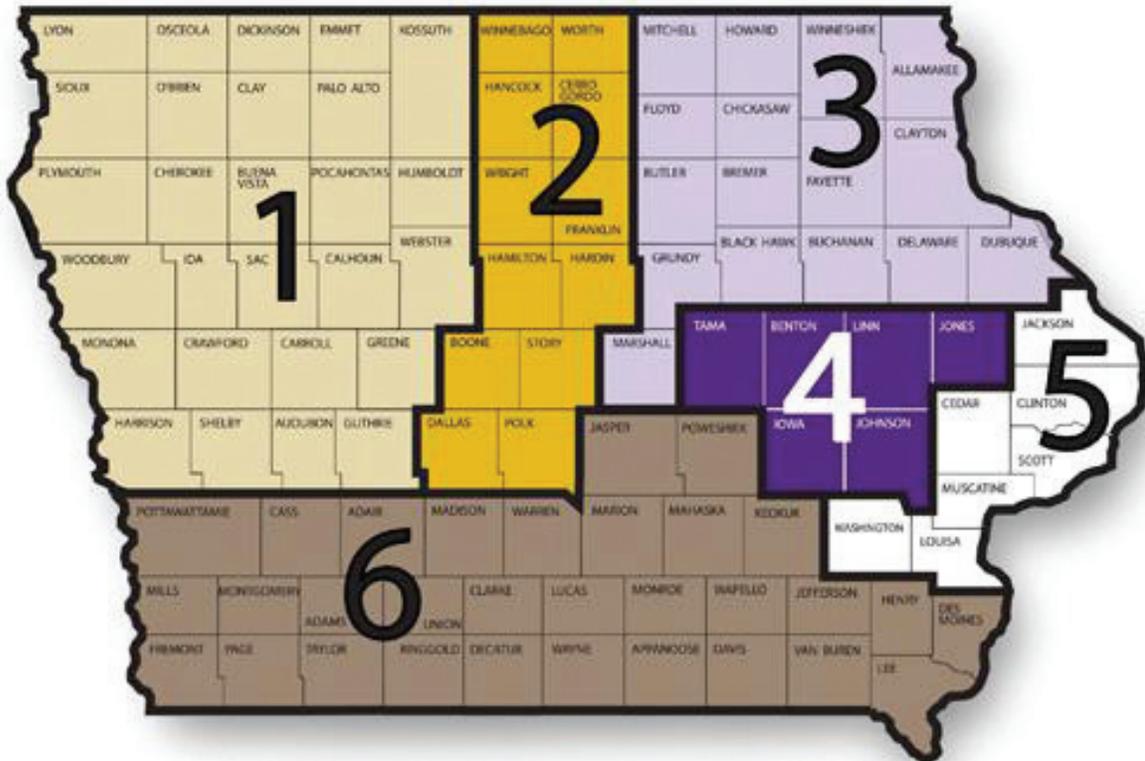
- Identifying viable markets for waste materials. A basic IWE principle – never rule out a waste stream.
- Helping locate and access markets for recyclable commodities.
- Finding environmentally stable solutions for unmarketable waste streams, such as outdated chemicals.
- Drafting and/or reviewing standard operating procedures for handling waste streams.

- Writing waste management grant applications for clients, and reviewing and commenting on client-drafted applications.
- Getting involved in numerous special programs and projects, including participating on recycling committees, in workshops, and at recycling events.

IOWA WASTE EXCHANGE STATISTICS: 2014	
Number of companies assisted (in house)	1,710
Number of companies assisted (on-site)	1,591
Number of material matches	436
Tons of materials matched	115,112
Total cost savings for Iowa companies	~\$2.3 million

IOWA WASTE EXCHANGE STATISTICS: 1990 - 2014	
Number of material matches	13,619
Tons of materials matched	3.5 million
Total cost savings for Iowa companies	~\$89.5 million

IOWA WASTE EXCHANGE PRIMARY SERVICE AREAS



2014 IWE SUCCESSES

TWO MEN AND A DUMPSTER DIVER

Women transitioning from domestic abuse situations and others received dressers thanks to Iowa State University (ISU), Iowa Waste Exchange (IWE) and the moving company, Two Men and a Truck. The ISU Director of Sustainability contacted the IWE Area 2 Resource Specialist about the potential donation of 45 dressers from one of the dorms, available to nonprofit organizations. Finding homes for the dressers was fairly straightforward, but logistics for loading, moving and unloading the dressers proved challenging and threatened to derail the project. When Two Men and a Truck was contacted to obtain quotes, they graciously offered to do a donation move. 15 of the dressers were hauled to Hampton for eventual distribution to clients of Bridge of Hope and La Luz Hispana. The remaining 30 dressers went to St. Joseph's Emergency Shelter, where several were to be distributed to families leaving the shelter. Others were moved to St. Anthony's School for use by instructors relocating from other countries to teach in the Spanish immersion program.

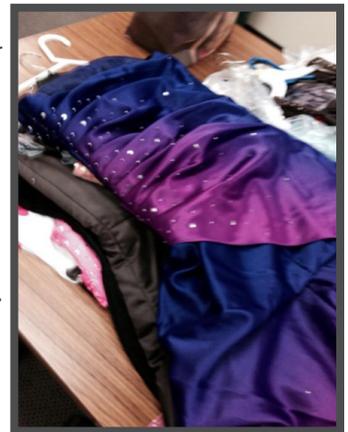


LIDS & SPOOLS TEAMWORK

A radio broadcaster in Carroll found twenty lids from Rubbermaid totes, sans totes, while cleaning out a studio storeroom. The recycling center in Carroll referred him to the Area 1 Iowa Waste Exchange Resource Specialist, who called Plastic Recycling of Iowa Falls. They said that the lids could be used in their processes. The next day, the Crawford County Transfer Station called the Carroll recycling center about forty 10-inch black plastic spools from an area manufacturer. The referral again went to the IWE, and once more a match was made with Plastic Recycling of Iowa Falls. These transactions illustrate the teamwork and communication that happens among an area's solid waste operations and the Waste Exchange. Small transactions are as important as those involving hundreds or thousands of tons. The ultimate goals of the Program are to reduce solid waste costs, prolong the lives of landfills, and reduce energy usage through materials reuse or recycling. Every transaction moves Iowa towards meeting those goals.

FINDING THE PERFECT PROM DRESS - FOR FREE

The Muscatine Solid Waste Agency's Recycle the Dress event provides prom-goers with free dresses and accessories from community member donations; now in its third year, over 200 dresses to choose from. "This is just another form of reuse and recycling," says the Muscatine Solid Waste Manager. "We decided to use the event as an educational opportunity to show the value of reuse". The Iowa Waste Exchange Area 5 Resource Specialist has had a role each year, spreading the word to prom dress seekers, collecting and delivering dresses from community members to the transfer station, and even helping to display dresses and talk about the benefits of reuse during a program on local public television. This project showcases the benefits of reuse in a very tangible way to both parents and their children, and also saves them a couple hundred dollars. In 2013, the Iowa Society of Solid Waste Operators recognized Recycle the Dress with the Innovative Recycling Project Award.



FOR MORE INFORMATION

To learn more about the IWE and its progress over the past year, go to www.iowadnr.gov/FABA

DNR Contact: Bill Blum • 515.725.8376 • Bill.Blum@dnr.iowa.gov

POLLUTION PREVENTION SERVICES

Pollution Prevention Services offers confidential, non-regulatory environmental technical assistance at no cost to Iowa business and industry, institutions and governmental agencies using pollution prevention or source reduction strategies. An assortment of assistance opportunities and services are offered to assist clients including:

- Opportunity assessments
- Nationally recognized Pollution Prevention Intern Program
- Environmental Management Systems assistance
- Workshops and educational training



In 2014, 14 top engineering students from various Iowa colleges and universities worked at selected host facilities to analyze waste streams and research alternative processes or technologies to save money and benefit the environment.

Interns with the Pollution Prevention Intern Program have the unique opportunity to experience a partnership of academia, industry and government all working together toward a common goal. After one week of training in pollution prevention methodologies, interns help manage projects in Iowa industries. Interns work on-site to identify and implement

FOR MORE INFORMATION

To learn more about Pollution Prevention Services, go to www.iowap2services.com

DNR Contacts:

Pollution Prevention Services
 Jeff Fiagle • 515.725.8353 • Jeff.Fiagle@dnr.iowa.gov

Pollution Prevention Intern Program
 Danielle Dilks • 515.725.8363 • Danielle.Dilks@dnr.iowa.gov

2014 ASSISTANCE STATISTICS

Technical assistance on-site requests	242
Assessments	7
Follow-up Assessments	20
Informational/marketing presentations	5
Informational Materials Sent	3,521
Intern Projects	14 (11 12-week & 3 24-week projects)
Workshops/conferences sponsored	3

2001 - 2014 ANNUAL CUMULATIVE IMPLEMENTED SAVINGS

CATEGORY	REDUCTION	COST SAVINGS
Water Conservation	1,438,887,197 gallons	\$6,175,330
Solid & Special Waste	213,858 tons	\$15,619,170
Hazardous Waste	8,025 tons	\$12,202,993
Mercury Abated	42,817 grams	—
Energy	363,050,130 kWh 9,204,653 therms	\$20,547,136 \$7,057,960
Other	—	\$13,622,422
TOTAL		\$75,225,011

cost effective and environmentally feasible improvements for their host company. Seven of this year's intern projects were hosted by companies new to the program. Eleven of the interns were on-site at the companies for 12 weeks and three of the projects were addressed over a period of 24 weeks.

A total of 3 workshops were conducted in 2014 to provide pollution prevention and compliance information to clients from various industrial sectors. These events included:

- Two workshops that provided information regarding compliance and reduction/management about hazardous waste, zero landfill and greenhouse gas reporting in conjunction with the Iowa Strategic Goals Program; and
- A workshop that provided participants assistance in understanding Aspects & Impacts as well as rating their significance which is a building block in development of an environmental management system.

2014 POLLUTION PREVENTION INTERN PROGRAM BY THE NUMBERS

2014 POLLUTION PREVENTION INTERN PROGRAM IMPLEMENTED SAVINGS

CATEGORY	REDUCTION	COST SAVINGS
Water Conservation	440,276 gallons	\$2,179
Solid Waste	1,351 tons	\$214,975
Hazardous Waste	219 tons	\$1,343,111
Energy	1,509,764 kWh	\$62,884
Other	—	\$6,400
TOTAL		\$1,629,549

2014 DIVERTED TONS OF AIR POLLUTANTS & GREENHOUSE GASES

CO2	SO2	CH4	N2O
2,454.80	3.42	268.84	5.76
CFC	NOx	VOC	PM-10
7.82	1.62	1.05	0.18



2014 POLLUTION PREVENTION INTERN PROGRAM RECOMMENDED SAVINGS (not yet implemented)

CATEGORY	REDUCTION	COST SAVINGS
Water Conservation	25,121,603 gallons	\$212,373
Solid Waste	23,103 tons	\$1,419,408
Hazardous Waste	113 tons	\$2,145,540
Energy	15,107,035 kWh 1,459,572 therms	\$553,502 \$1,200,162
Other	—	\$1,967,042
TOTAL		\$5,530,985

Funding for the program comes from the Solid Waste tonnage fees including the Solid Waste Alternatives Program and grants from the Environmental Protection Agency and the US Department of Agriculture.

SOLID WASTE ALTERNATIVES PROGRAM

The Solid Waste Alternatives Program (SWAP) was established in the landmark Groundwater Protection Act of 1987 to offer financial assistance for the development and implementation of solid waste management projects to reduce the amount of solid waste generated and the amount of solid waste landfilled.

More than \$3.3 million was requested in funding to assist with implementing projects and programs that reduce solid waste generation and to divert solid waste from the landfill for higher and best use. Selected applicants were competitively awarded \$1.5 million to reduce and recycle solid waste resources. SWAP awards leveraged with over \$900,000 in local investment, allowed 29 new solid waste reduction, recycling and public awareness projects and programs to assist Iowans in conserving natural resources while stimulating local economies through product purchases and new services.

Projects that received funding assistance included a variety of new and expanded residential, commercial and agricultural related recycling projects, asphalt shingle recycling, food waste recovery expansion, and electronic waste reuse and recycling.

Thirty-seven (37) stakeholders, with active SWAP agreements, reported more than 74,000 tons of solid waste was diverted from Iowa landfills by these SWAP assisted local programs.

SWAP receives a portion of the solid waste tonnage fee assessed on solid waste landfilled in Iowa. Solid waste agencies collect the tonnage fee from landfill customers, retain varying amounts for local programs and remit the remainder to the state where it is deposited into the Groundwater Protection Fund. The tonnage fee is used to support several statewide programs.

LOAN TYPES AWARDED IN 2014

TYPE	FUNDING
Forgivable Only	\$333,091
Zero-Percent	\$505,630
Three-Percent	\$490,000
SWAP INVESTMENT TOTAL	\$1,527,721
LOCAL INVESTMENT TOTAL (cash)	\$914,702

APPLICANT TYPES AWARDED IN 2014

Local Government	13
Private for Profit	12
Private Non-Profit	4
TOTAL	29

2014 SWAP SUCCESS

DIFFERENT LANDFILL SERVICE AREAS, ONE COMMON GOAL

Central College, located in Pella Iowa, has been and continues to be committed to the environment through their mission of implementing sustainability initiatives across the campus including energy efficient vehicles, LEED certified buildings and recycling. Central College Dining Service has also implemented trayless meal service as a means to reduce post-meal food waste and water conservation.

Central College installed a food pulper for kitchen prep and post-meal food waste. Processed food waste is taken to a local composting facility where the pulped food waste will be composted and ultimately returned to the soil.



During the first year of operation, the food waste pulper resulted in:

- diverting more than 108,000 pounds of pre and post-meal food waste from the landfill for composting;
- saving more than \$10,000 in avoided landfill fees; and
- saving approximately \$8,000 in wastewater fees.

Project benefits included:

- additional sustainability education opportunities;
- revenue for area contractors
- eliminated greenhouse gases equivalent to 120 cars for a one month period.

Central College is investigating the next step in waste diversion. Coupling the pulper system with a dehydrator will allow the processed food waste material to be utilized directly on campus. This will result in additional cost avoidance through eliminating collection, transportation and tip fee costs associated with disposal away from campus.

FOR MORE INFORMATION

To learn more about SWAP, go to www.iowadnr.gov/FABA

DNR Contact:

Tom Anderson • 515.725.8323
Tom.Anderson@dnr.iowa.gov

SOLID WASTE & RECYCLING INITIATIVES

ADDRESSING FOOD WASTE IN 2014

The waste of food in America is rightfully drawing significant local, state and national attention. The Environmental Protection Agency (EPA) has reported that in 2011, Americans landfilled more than 36 million tons of food waste nationally. But we're lowans, surely we do better. Well, in 2011, the Financial and Business Assistance (FABA) Section sponsored Statewide Waste Characterization Study determined that food waste is the most landfilled material in Iowa. More than 382,000 tons of food is landfilled annually. On a per capita basis, this is slightly higher than the rest of the country.

The FABA Section has been active and is assisting stakeholder efforts to expand existing programs and develop new programs that help combat the landfilling of this valuable resource. In 2014, several Solid Waste Alternatives Program (SWAP) projects were awarded funding assistance to implement new food waste recovery initiatives or expand existing programs. Additionally, the FABA Section commissioned a food waste study of industrial, commercial and institutional generators in the state. A short summary of this study and some other food waste related projects taking place over the past year are shown below.

Eat Greater Des Moines: This nonprofit organization is implementing the Food Rescue Project, a public/ private

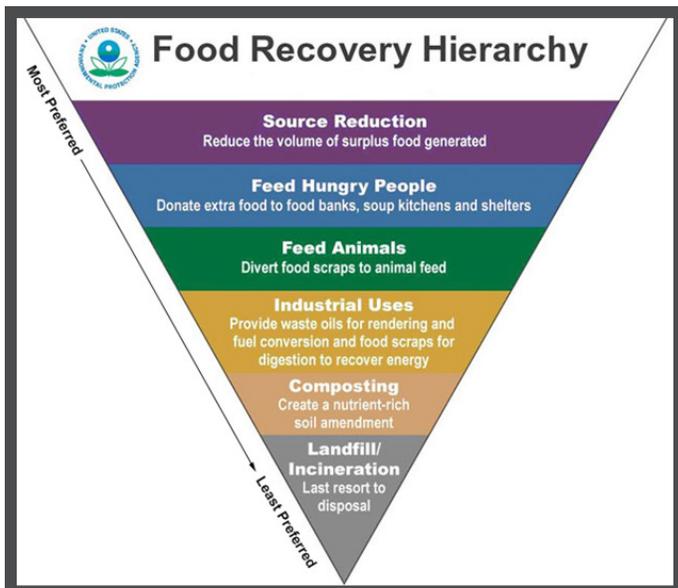
partnership coordinating food donations, collection and distribution to area food pantries and prepared food to organizations in the Des Moines metro area serving the homeless. The SWAP award will assist in developing and implementing a custom software application that allows donators to post the availability of food items directly to food pantries and others providing food resources to those in need.

Loffredo Gardens, Inc.: This company is a major Iowa produce supplier located in West Des Moines and Norwalk. The company was awarded a SWAP loan to expand the recovery of unsellable produce and the waste generated from cutting and preparing fruits and vegetables before packaging them for sale. The fresh produce waste is made available to area livestock producers to supplement feeding operations as part of the Scraps for Feed program.

Industrial, Commercial and Institutional (ICI) Food Waste Study: The Department contracted with the Iowa Waste Reduction Center to conduct a study investigating food waste generation focusing on industrial, commercial and institutional (ICI) sector generators. The Contractor will survey identified Iowa food waste generators in each of ten (10) ICI generator categories (i.e. food manufacturers/processors, food distributors/wholesalers, colleges and universities, schools K-12, supermarkets, restaurants, hospitals, nursing homes, correctional facilities, and resorts/conference centers).

Through individual contacts with ICI food waste generators, the resulting data will be entered into a database capable of mapping generators, food waste quantities, food waste types, generation frequency, current management and other data necessary to fully understand the issues and opportunities of better managing food waste. Data from this study will provide the FABA Section with critical information necessary to strategically allocate efforts and funding in support of promotion, development and expansion of the food waste management infrastructure. Diverting these resources from the landfill for higher and better uses in the most efficient and economical manner is a priority for the FABA Section. The ICI Food Waste Study is scheduled for completion in July 2015.

Left: The Food Recovery Hierarchy prioritizes actions that can be taken to prevent food waste and to divert wasted food from the landfill for higher and better uses.



LANDFILL FINANCIAL ASSURANCE - 100'S OF \$MILLIONS AT STAKE



To close a landfill in an environmentally responsible way can cost a lot of money. More than \$100 million was estimated in 2014 for the total costs of closing all of Iowa's open landfills. There has to be between 10 and 30 years of

landfill postclosure care as well, and total Postclosure Cost Estimates are at almost \$124.3 million. Landfills are required to report yearly on their provisions for meeting these costs.

By April 1, Financial Assurance Annual Reports are to be submitted by 61 public and 25 private (primarily industrial) landfills. Reports are to include updated Closure and Postclosure Cost Estimates prepared by Professional Engineers, who must be Iowa-licensed. Third party accounting records that substantiate financial assurance measures must also be included.

Detailed evaluation of 86 multi-variable reports takes considerable time. Discrepancies have to be clarified. Mistakes that are identified need to be corrected. Occasional disputes are worked through to resolution. Some Reports are submitted after the April 1st deadline, but DNR approvals are

conducted timely so that required deposits into designated financial assurance funds are made within 30 days after the end of each facility's fiscal year.

For 2014, landfills reported about \$218.3 million as the sum value for the nine different financial assurance instruments they can use. And a total of nearly \$3.5 million was to be deposited into various landfills' closure and postclosure accounts as installments on the \$6 million yet needed to fully provide financial assurance for all of the landfills' combined Cost Estimates.

MOBILE EDUCATION EXHIBIT

The Cause & Effect: Your Eco Story mobile education exhibit received numerous visitors during 2014. Scheduled events allowed approximately 18,000 people to tour the mobile exhibit, not including the several thousands more that visited the exhibit during the Iowa State Fair.

2015 will bring a few modifications. The existing onboard generator will be replaced with a smaller, quieter and more energy efficient model. Efforts are also underway to update the educational content of the interactive displays within the exhibit. These updates will take place over the course of 2015.

The mobile education exhibit is an all-inclusive experience that provides an interactive way to learn about the natural resources used in our daily lives, the effects this has on our environment and simple steps that can be taken around the home to minimize the waste of these resources. Visit the [Mobile Education Exhibit webpage](#) for additional information and to reserve the exhibit for your next event.

FOR MORE INFORMATION

To learn more about FABA's solid waste and recycling initiatives, go to www.iowadnr.gov/FABA

DNR Contact:

Tom Anderson • 515.725.8323
Tom.Anderson@dnr.iowa.gov

To learn more about Landfill Financial Assurance,

DNR Contact:

Bill Blum • 515.725.8376
Bill.Blum@dnr.iowa.gov

