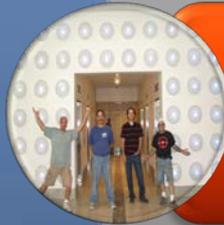


# Iowa Waste Exchange

*A Free, Confidential  
and Non-Regulatory  
Program of the  
Iowa Department of  
Natural Resources*



**Reduce**



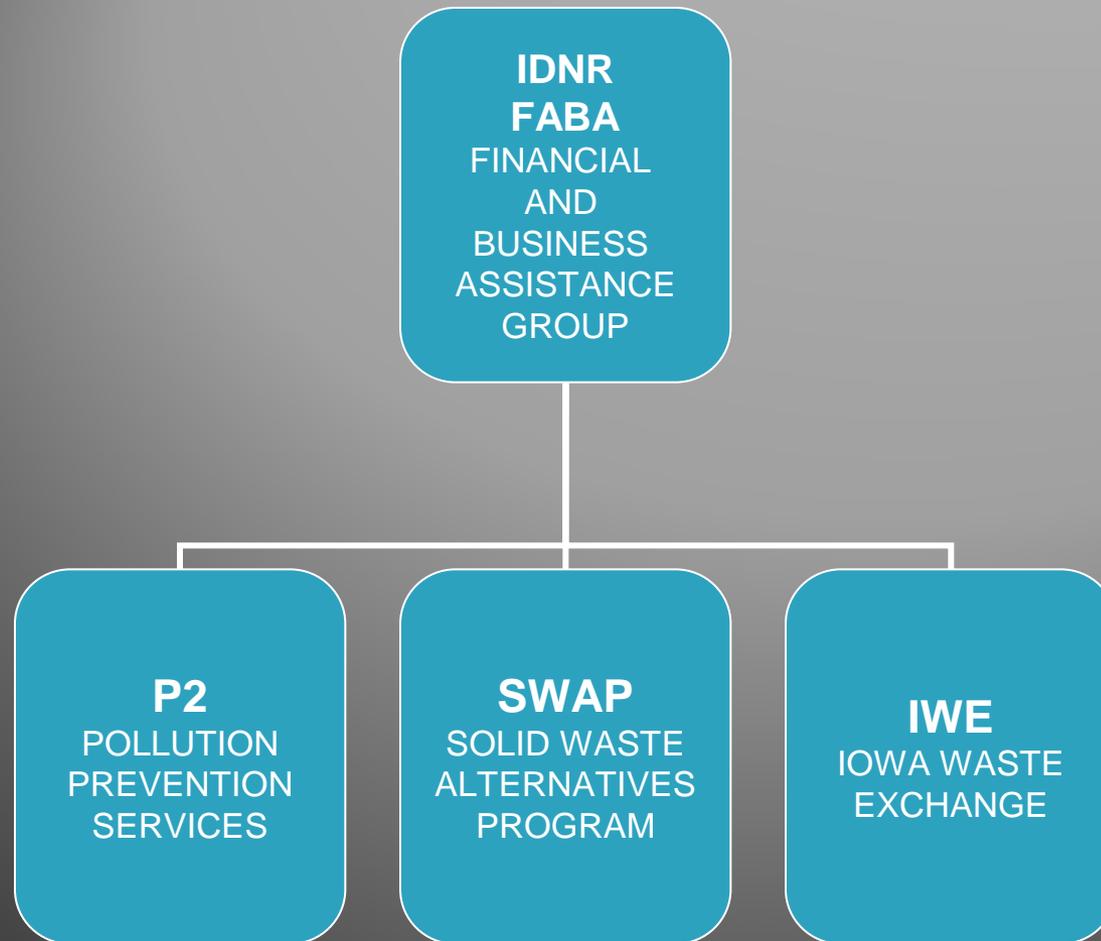
**Reuse**



**Recycle**

Shelene Codner, Area Resource Specialist

# Iowa Waste Exchange



Shelene Codner, Area Resource Specialist

# Iowa Waste Exchange

## POLLUTION PREVENTION SERVICES

### **Services Provided:**

- Initial consultation
- Plant-wide or focused assessments
- Project and program evaluation
- Pollution prevention program
- Environmental Management Systems development assistance
- Source reduction alternatives
- Educational workshops and training
- Pollution Prevention Intern Program
- Expertise in energy and water conservation

# Iowa Waste Exchange

## SOLID WASTE ALTERNATIVES PROGRAM

The program provides financial assistance in the form of forgivable loans, zero interest loans, and 3 percent interest loans.

A 50 percent cost share is required through cash match and in-kind match. Projects are selected through a quarterly competitive process. Emphasis for selected projects is placed on tonnage avoided or reduced, sustainability and ability to replicate.

Any unit of local government, public or private group or individual is eligible to apply for program funds.

### **Funds can be used for such items as:**

- Waste reduction equipment and installation
- Recycling, collection, processing, or hauling equipment (including installation)
- Development, printing and distribution of educational materials
- Planning and implementation of educational forums, workshops, etc.
- Purchase and installation of recycled content products
- Salaries directly related to implementation and operation of the project

Extra consideration is given to applications addressing large or hard-to-manage targeted waste streams.

# Iowa Waste Exchange

FREE, CONFIDENTIAL AND NON REGULATORY

Garbage Gurus, Dumpster Divers, Trash Talkers

- Assist in development of Waste Management Plans through waste audits/sorts
- Assist in identifying waste reduction opportunities
- Assist in identifying reuse opportunities
- Assist in identifying marketable waste/revenue streams
- Assist in obtaining additional markets for recyclable commodities and troubleshooting challenges
- Assist in grant writing and/or review and location of resources
- Assist in establishing or reviewing your written protocols for waste management (SOP, EMS Plans, LEED)
- Public speaking/continuing education
- Other assistance and special events as requested

Shelene Codner, Area Resource Specialist

# Iowa Waste Exchange

## Waste Audit

A waste audit is a process of hand-sorting through onsite waste in order to quantify the amount of solid waste generated and determine the amount of solid waste that is ultimately ending up in the landfill.

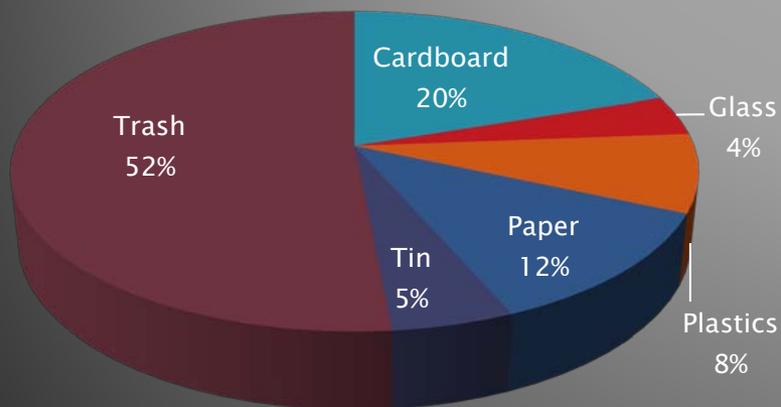
Data from waste sort events assists in identifying current waste practices and the feasibility of implementing commodity specific waste reduction, recycling and education programs.



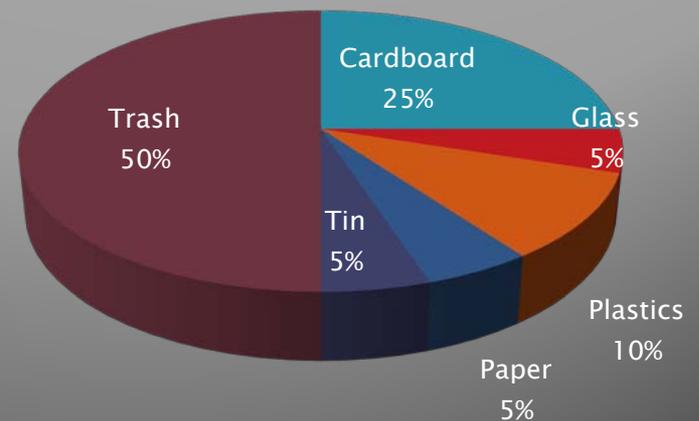
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# Iowa Waste Exchange

## Percent by Weight



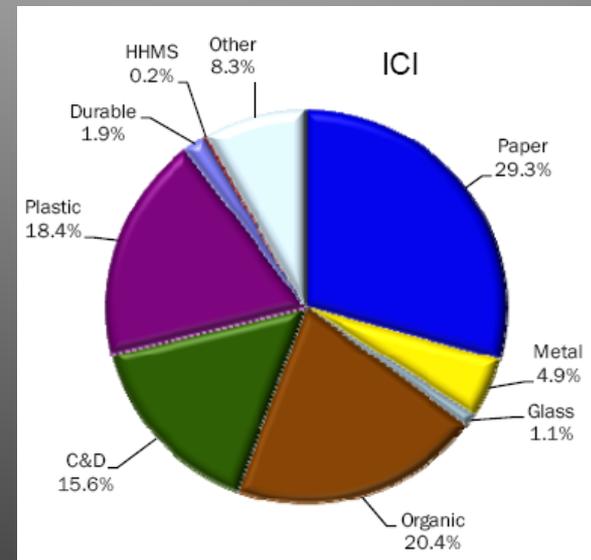
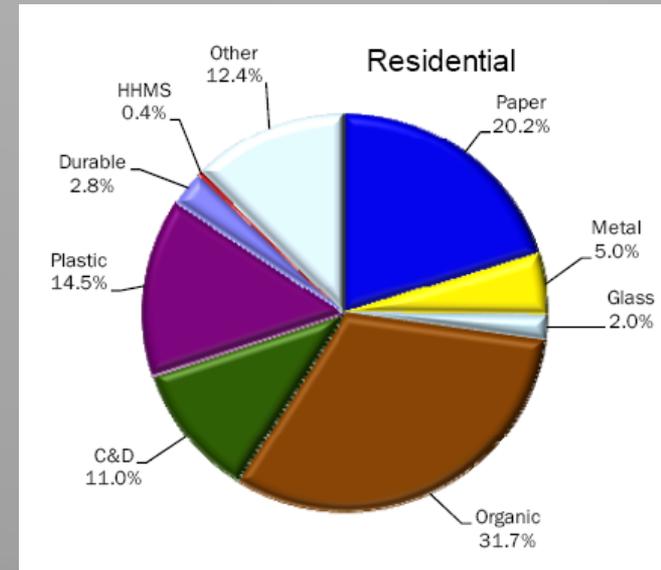
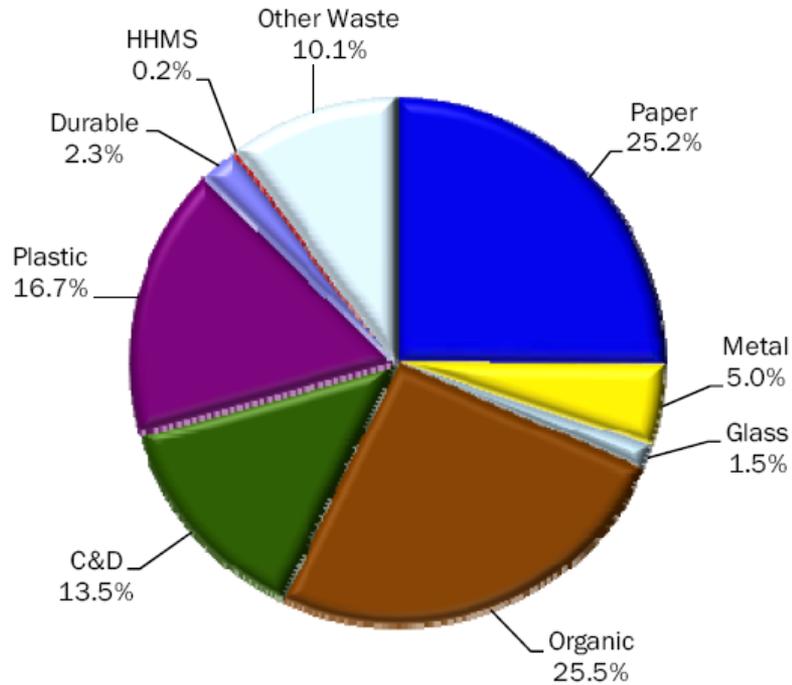
## Percent by Volume



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# Iowa Waste Characterization

Figure ES-1 2011 Iowa Statewide MSW Composition



# Iowa Waste Exchange

## Waste Reduction/Reuse

- Order merchandise with minimal packaging, in concentrated form or in bulk
- Ask suppliers not to overpackage orders
- Request materials be shipped in returnable containers
- Set up a system for returning cardboard boxes to distributors for reuse
- Return, reuse and repair wooden pallets
- Replace cardboard boxes with durable, reusable boxes for shipments to branch offices, stores and warehouses
- Process and manufacturing changes – eliminate unneeded parts and unneeded steps
- Using waste as a raw material

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# Iowa Waste Exchange

Waste Reduction/Reuse

Factors that reduce profits and increase waste

- Overproduction
- Inventory
- Transportation/Storage
- Defects

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# Iowa Waste Exchange

Recycling – Typical Recycling Streams – i.e. Low Hanging Fruit

- Metal
- Cardboard
- Paper
- Plastics
- Glass
- Metro Areas – Singles Stream Recycling
- Rural Areas – Logistical Challenges

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Recycling – Atypical Recycling Streams – “Outside of the Bin”



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# Iowa Waste Exchange

Recycling – Atypical Recycling Streams – “Outside of the Bin”



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## Crystal Bowls found in River by A.W.A.R.E. Volunteers

During the recent IDNR Project AWARE river cleanup, two crystal serving pieces were found on the river by Greene. If these are yours, please contact the Greene Recorder at 641-816-4525.

## Project A.W.A.R.E. Cleans 47 Tons of Trash from Area Rivers

THREE RIVERS, 47 TONS OF TRASH, 141 SPONSORS,  
221 PARTICIPANTS ... AND ONE HUGE "THANK YOU!"



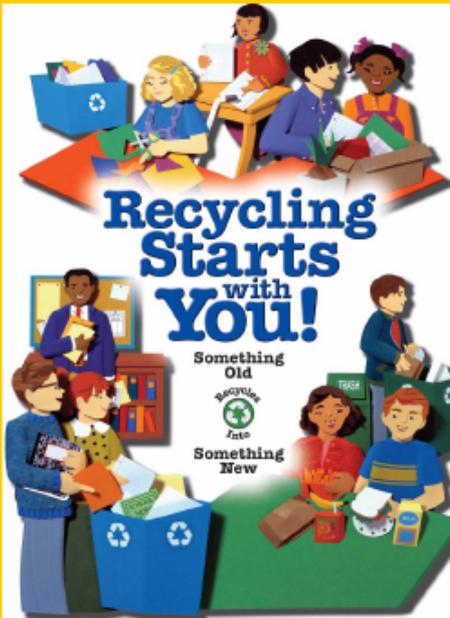
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# Iowa Waste Exchange



## FIRST ANNUAL MASON CITY PAPER CAPER April 21 - April 26, 2008

A recycling contest for schools sponsored by The Mason City Earth Day Committee, Landfill of North Iowa and The Iowa Waste Exchange



The Paper Caper Traveling Trophy is up for grabs!

Recycling containers will be delivered to your school on **April 21, 2008.**

From **April 22 to April 24 LET THE FILES FLY** by filling the containers with recyclable materials from your desks, files, storage closets and lockers or anywhere else in your school building. Your teacher will let you know what items are acceptable for recycling.

Containers will be picked up and weighed on **April 25, 2008.**

The school with the largest volume per capita will be the winner!

The winning school and participating schools will be announced and rewarded at the

CONTAINERS AND HAULING PROVIDED BY

**ABSOLUTE WASTE**  
(641) 421-6814  
[HTTP://ABSOLUTE\\_WASTE.COM](http://ABSOLUTE_WASTE.COM)



VISIT

The Keepers of the Land events calendar for a listing of Mason City Earth Week events, activities and volunteer opportunities.

[www.KeepersoftheLand.org](http://www.KeepersoftheLand.org)

[WWW.EARTHWEEKNORTHIOWA.ORG](http://WWW.EARTHWEEKNORTHIOWA.ORG)

## SPECIAL EVENTS

Shelene Codner, Area Resource Specialist

# Iowa Waste Exchange



**KEEP IT CLEAN  
AND KEEP IT GREEN!**

**HARDIN COUNTY  
COMMUNITY  
CLEAN-UP CONTEST 2009  
EARTH DAY - EVERY DAY!**

Attention all Hardin County  
residents, schools,  
and community groups!

You are invited to compete against each other  
to collect as much trash as you can!

The rules are simple:

- 30 gallon trash bags (or larger) must be used.
- Picture documentation of the number of bags collected must be submitted.
- Pictures must include the date.
- All entries must be received by April 24<sup>th</sup> 2009.

Sponsored by

Plastic Recycling of Iowa Falls  
Iowa Waste Exchange  
Ellsworth Community College  
Phi Theta Kappa Chapter  
Ellsworth Community College  
Conservation Club

Submit entries to:  
Marcia Hovinga  
Ellsworth Community College  
1100 College Avenue  
Iowa Falls, IA 50126

Electronic submissions are  
encouraged and welcomed:  
[Marcia.Hovinga@iavalley.edu](mailto:Marcia.Hovinga@iavalley.edu)



**GRAND PRIZE**  
ENGRAVED PLASTIC BENCH  
MANUFACTURED OF 100%  
RECYCLED MATERIALS  
[www.PlasticRecycling.us](http://www.PlasticRecycling.us)



## ELECTRONICS WANTED

**EARTH DAY EVERY DAY!**

**ELECTRONICS  
COLLECTION EVENT**

**APRIL 29TH AND 30TH**

**6:00 AM - 8:00 A.M.**

**11:00 AM - 1:00 PM**

**5:00 PM - 7:00 PM**

**NATIONAL GUARD ARMORY  
217 GEORGETOWN ROAD  
IOWA FALLS, IA**



**THE FOLLOWING ITEMS WILL BE ACCEPTED AT NO CHARGE**

<b>BATTERIES</b>	<b>FAX MACHINES</b>	<b>PDAS</b>
<b>BATTERY BACKUPS</b>	<b>HANDHELD ELECTRONICS</b>	<b>PHONE SYSTEMS</b>
<b>CELL PHONES</b>	<b>KEYBOARDS</b>	<b>PRINTERS</b>
<b>COPIERS</b>	<b>LAPTOPS</b>	<b>ROUTERS</b>
<b>CPUS</b>	<b>MAIN FRAMES</b>	<b>SERVERS</b>
<b>DVD PLAYERS</b>	<b>MICE</b>	<b>VIDEO GAMES</b>



**MONITORS AND TELEVISIONS  
WILL BE ACCEPTED  
AT A CHARGE**

**18" AND UNDER - \$7.00**  
**19" TO 25" - \$12.00**  
**26" TO 32" - \$17.00**  
**33" TO 40" - \$22.00**

**AN ADDITIONAL \$10.00  
WILL BE ASSESSED  
FOR CONSOLE  
TELEVISIONS**

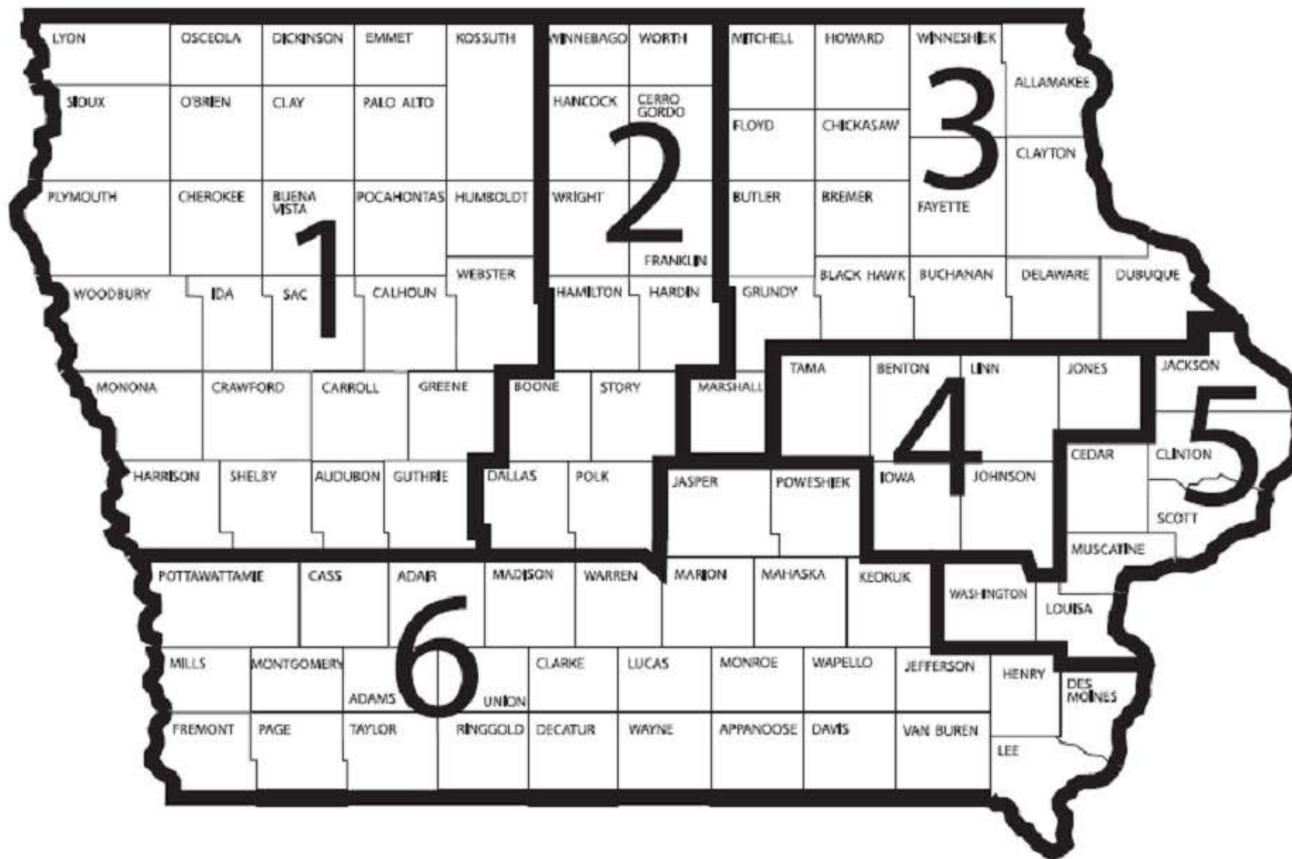
**SPONSORED BY  
ELLSWORTH COMMUNITY COLLEGE  
IOWA NATIONAL GUARD  
IOWA WASTE EXCHANGE**

FOR ADDITIONAL INFORMATION CONTACT SHELLY CODNER, (319) 404-1942, [SHELLY@NETINS.NET](mailto:SHELLY@NETINS.NET)

Shelene Codner, Area Resource Specialist

# Iowa Waste Exchange

## IOWA WASTE EXCHANGE PRIMARY SERVICE AREAS



Shelene Codner, Area Resource Specialist

# Iowa Waste Exchange

## **Area 1**

Fred Kesten  
1009 E. Anthony St.  
PO Box 768  
Carroll, IA 51401  
Phone: 712.792.9914  
Fax: 712.792.1751  
fkesten@region12cog.org  
Host Organization: Region XII Council of Governments

## **Area 2**

Shelene Codner  
2006 S. Ankeny Blvd.  
Bldg 18, Rm 25D  
Ankeny, IA 50023-3993  
Phone: 515.965.7194  
Cell: 319.404.1942  
Fax: 515.964.6206  
scodner@region12cog.org  
Host Organization: Des Moines Area Community College

## **Area 3**

Jeff Schlee  
229 E. Park Ave.  
Waterloo, IA 50703  
Phone: 319.235.0311  
Fax: 319.235.2891  
jschlee@incog.org  
Host Organization: Iowa Northland Regional Council of Governments

## **\*Delaware and Dubuque counties contact**

Ben Kvigne  
229 E. Park Ave.  
Waterloo, IA 50703  
Phone: 319.235.0311 ext. 125  
Fax: 319.235.2891  
bkvigne@incog.org

## **Area 4**

Dick Stater  
700 16th St. NE, Suite 301  
Cedar Rapids, IA 52402  
Phone: 319.365.9941 x. 21  
Fax: 319.365.9981  
dick.stater@ecicog.org  
Host Organization: East Central Iowa Council of Governments

## **Area 5**

Julie Plummer  
306 West River Dr.  
Davenport, IA 52801-1221  
Phone: 563.336.3319 or 800.462.3255  
Fax: 563.336.3350  
jplummer@eicc.edu  
Host Organization: Eastern Iowa Community College District

## **Area 6**

Jim Reimer  
2041 715th Ave.  
Albia, IA 52531  
Phone: 641.938.2845  
Cell: 641.777.7949  
jreimer@wildbluepella.org  
Host Organization: Iowa Materials Exchange

## **Department of Natural Resources**

Linda King  
502 E. 9th St.  
Des Moines, IA 50319-0034  
Phone: 515.281.4876  
Fax: 515.281.8895  
linda.king@dnr.iowa.gov

Shelene Codner, Area Resource Specialist

## Contact Information

Shelene Codner  
Area Resource Specialist  
(319) 404-1942  
[scodner@region12cog.org](mailto:scodner@region12cog.org)

# Iowa Waste Exchange

## Hazardous Waste Reduction

- Source reduction is the preferred option including, chemical substitution, reformulation and process redesign
- Waste reduction through reuse, recovery or recycling is less preferred

# Iowa Waste Exchange

## Evaluate Each Stream for:

- ◆ Substitution of non toxic materials
- ◆ Substitution of less toxic materials
- ◆ Reformulation to eliminate toxics
- ◆ Modification of production process
- ◆ Changes in material usage
  - ◆ inventory control
  - ◆ preventive maintenance program

# Iowa Waste Exchange

## Hazardous Waste Reduction

- Identification of types & amounts of waste
  - Description of the process that generates it
  - Amount of waste generated per unit of production
  - Estimate of costs for managing waste
  - List of technically feasible measures
- 

# Iowa Waste Exchange

## Hazardous Waste Reduction

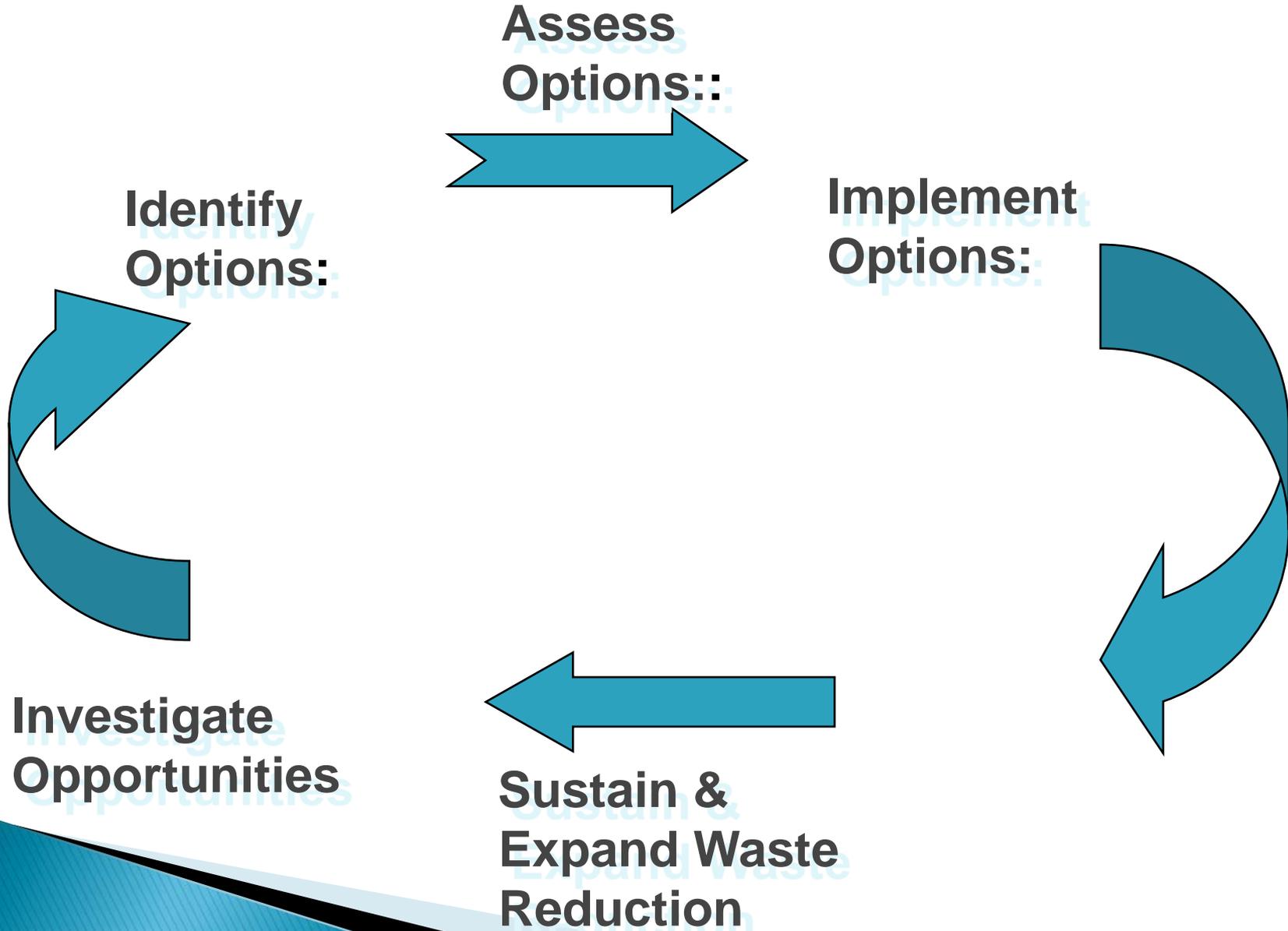
- Estimate of anticipated waste reduction achievable using technically feasible measures
- Implementation schedule
- Research & Development programs
- Estimate of waste transferred for outside treatment
- Facility Waste Reduction Policies
- Description of Training Program

# Iowa Waste Exchange

## Benefits of Hazardous Waste Reduction

- Reduced waste disposal costs
- Reduced environmental compliance costs
- Increased environmental awareness by employees
- Reduced overhead costs
- Reduced exposure to future liabilities
- Enhanced professional image

# Life Cycle of Hazardous Waste Reduction



# Iowa Waste Exchange

## Waste Minimization

### Source Reduction - Substitution

#### Original Material

#### Substitute Material

Formaldehyde	-	Formalin solution
Halogenated	-	Non-halogenated
Sodium dichromate	-	Sodium hypochlorite
Xylene or toluene	-	Alcohols or ketones
Solvent in	-	Non-solvent based
Scintillation vials		scintillation vials

# Iowa Waste Exchange

## Waste Minimization

### Source Reduction - Purchasing

- Limit the amount you order
- Do not stockpile chemicals
- Rotate stocks to use chemicals before shelf-life expires
- Keep up-to-date inventories and avoid ordering chemicals you already have

# Iowa Waste Exchange

## Waste Minimization

### Reuse

- Do not dispose of chemicals that can be reused. Contact the Iowa Waste Exchange.

# Iowa Waste Exchange

## Waste Minimization

### Recycling

- If you generate waste solvent that could be redistilled and recycled. i.e. xylene recycler in Pathology. Consider the purchase of a solvent recycler.

# Iowa Waste Exchange

## Waste Minimization

### Reclamation

- If your waste contains precious metals your waste stream may be a valuable byproduct.

# Iowa Waste Exchange

## Waste Minimization

### Treatment

- Detoxification of end-products. Sending waste off-site for disposal.

# Iowa Waste Exchange

## Waste Minimization

Never Mix Hazardous Materials

It is much easier to dispose of individual wastes streams.

➤ Do not mix solvents with aqueous waste.