



Leading the
Way: Not
waiting for ERP

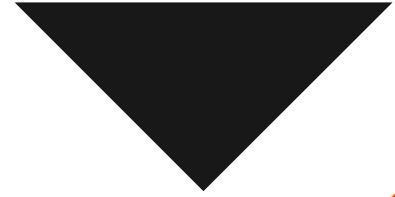
Speaker

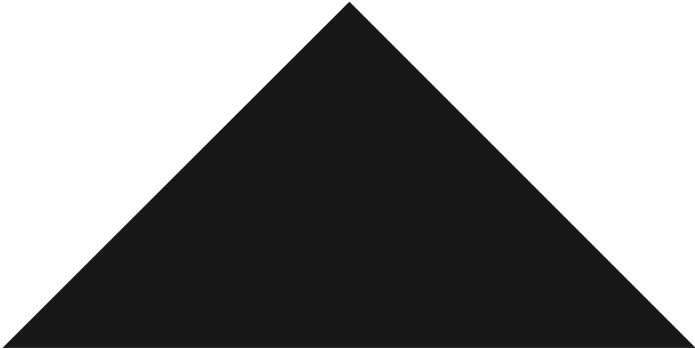
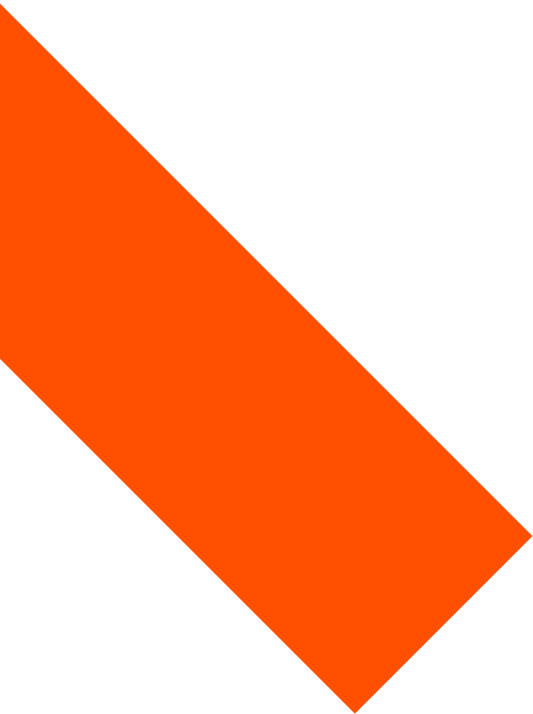
Kenneth Miller currently serves as the Assistant Public Works Director - Solid Waste Management for interim Solid Waste Curbside Operations Manager for the City of Dubuque. In addition, he serves on the NAHMMA Board of Directors as President, and is a member of several other professional organizations, including SWANA, the Iowa Society of Solid Waste Operator (ISOSWO – Board Member), and the Iowa Composting Council (former Board Member).



Why waiting isn't an option

- We can, and should do better
- The lift isn't heavy
- Excuses are like...





Battery Recycling

Selecting the right Containers

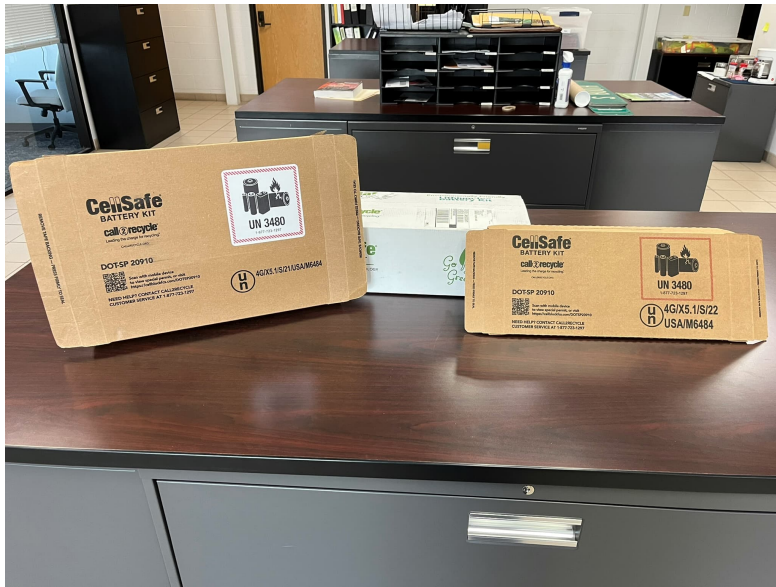
- Durability
- Locations
- What materials would be collected
- Capacity
- Custom design?





Collection Management

Collection Tools



A black and white photograph of a small seedling with two leaves growing out of dark, textured soil. The seedling is positioned on the left side of the frame, and the soil is in the foreground. The background is dark and out of focus.

Power of communication

Engaging the audience

- Utilize Traditional Media
- Utilize Social Media
- Expand the reach to more media channels



Sample Communications



Sample Communications

TAKE CHARGE
WATT TO DO WITH BATTERIES

Drop-Off Container Instructions

Cords & Cables



Remove Cords/Cables from bag/box

Place loose Cords/Cables in the bin here

Laptops, Tablets, & Phones



Remove from bag/box

Place Laptops, Tablets, & Phones Here

Household & Power Tool Batteries



Batteries should be in a sandwich size resealable bag (Bags are available at the desk)

Place Household & Power Tool Batteries Here



SCAN ME

Scan here to find out how to properly dispose of other items

dmawwa.org/wasterecycling



SCAN ME

Scan here for more information on battery recycling

dmawwa.org/batteries

TAKE CHARGE
WATT TO DO WITH BATTERIES



SCAN ME

How to use the Batteries drop-off at one of our community sites:



Tape the terminals for Lithium, Lithium Ion, and Button Batteries

Place batteries in a small sandwich size resealable bag

Drop the batteries (and old laptops, phones, Tablets, Cords, & Cables too) off in one of our community containers.

Sample Communications



TAKE CHARGE TO PREVENT BATTERY FIRES!

DID YOU KNOW?
Properly managing batteries by recycling them instead of disposing of them in the trash keeps your family and pets safe, conserves natural resources, and protects solid waste collections workers and our community.

WWW.DMASWA.ORG/batteries



See our website, follow us on social media or call us for more information.
www.dmaswa.org/batteries
(563) 557-8220

WHAT WE ACCEPT

- 
Household batteries such as Alkaline, Rechargeable, Lithium Ion, Lithium, Power tool batteries, etc. (all batteries must be in zipper storage bags)
- 
Battery Containing Devices such as Laptops, tablets, phones, portable chargers, etc.
- 
Cords & Cables

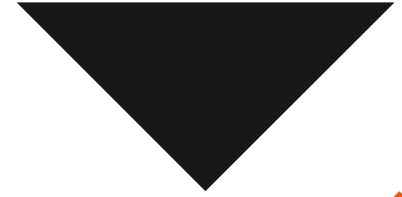
For a list of locations



SCAN ME

WWW.DMASWA.ORG/batteries

Sample Communications



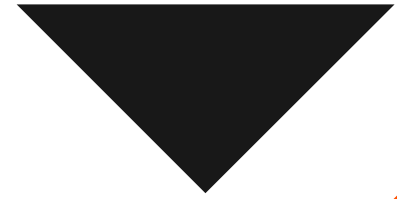
Sample Communications



Final tips & takeaways

- Make it convenient
- Collect all batteries
- Embedded battery challenges
- Use every marketing channel
- Stay on brand

- Seek feedback
- Reflect on performance
- Explore new techniques





Latex Paint Recycling



How did this all start?



Where we were

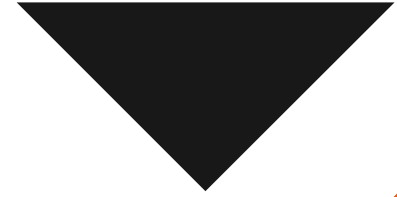
14 years ago!

Management Methods

- Onsite
 - Paint Crusher
- Preferred Option
 - Residents dry out or use kitty litter

Unintended Consequences

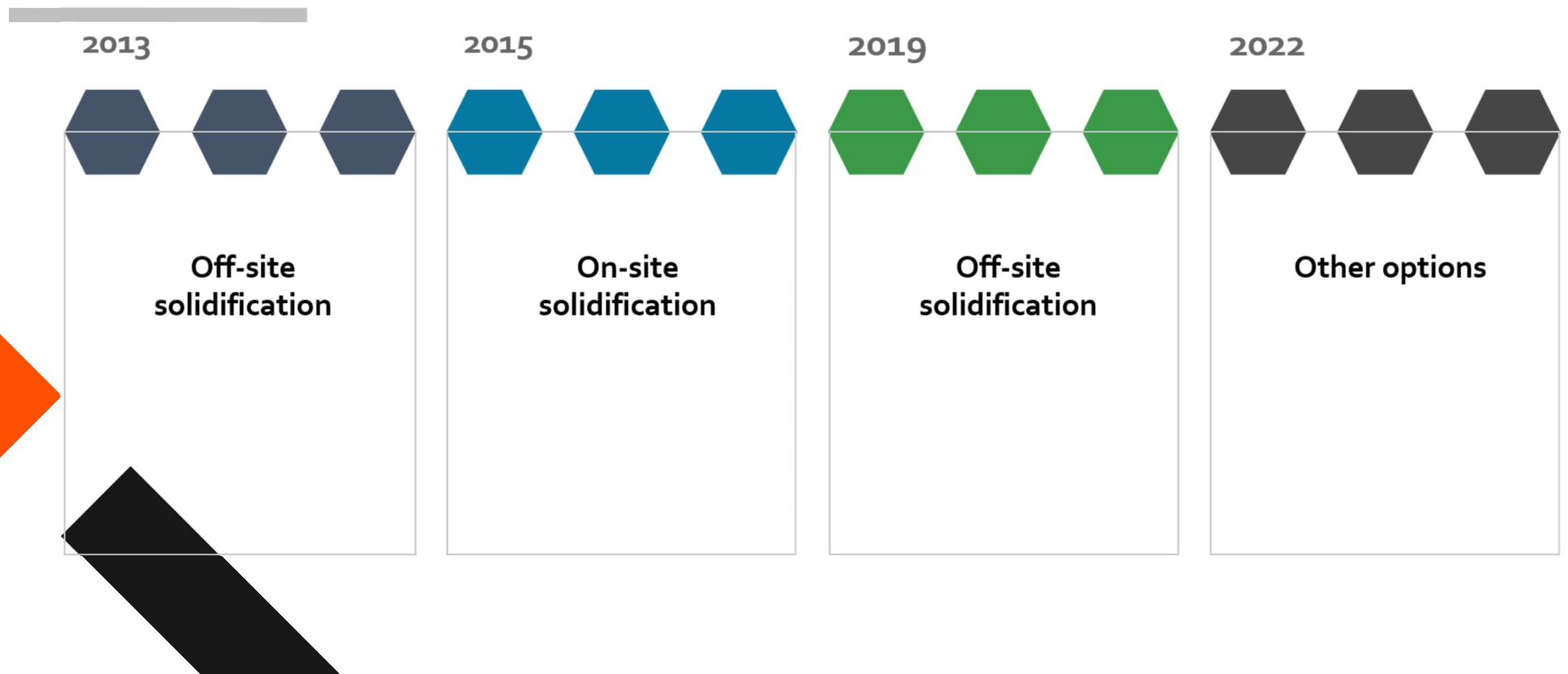
- Liquid Paint in the Landfill
- Wasting time and resources





Change in practice

Timeline





Mission Statement

What is our Mission?

In order to control current and future economic and environmental liability, the mission of the Dubuque Metropolitan Area Solid Waste Agency is to provide **environmentally sound, financially stable, fiscally responsible, community recognized**, solid waste management services that include appropriate waste reduction, **resource conservation**, education, customer service, and disposal activities.

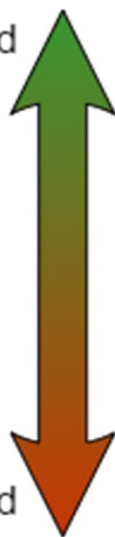




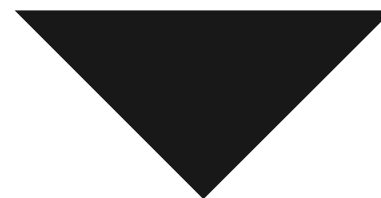
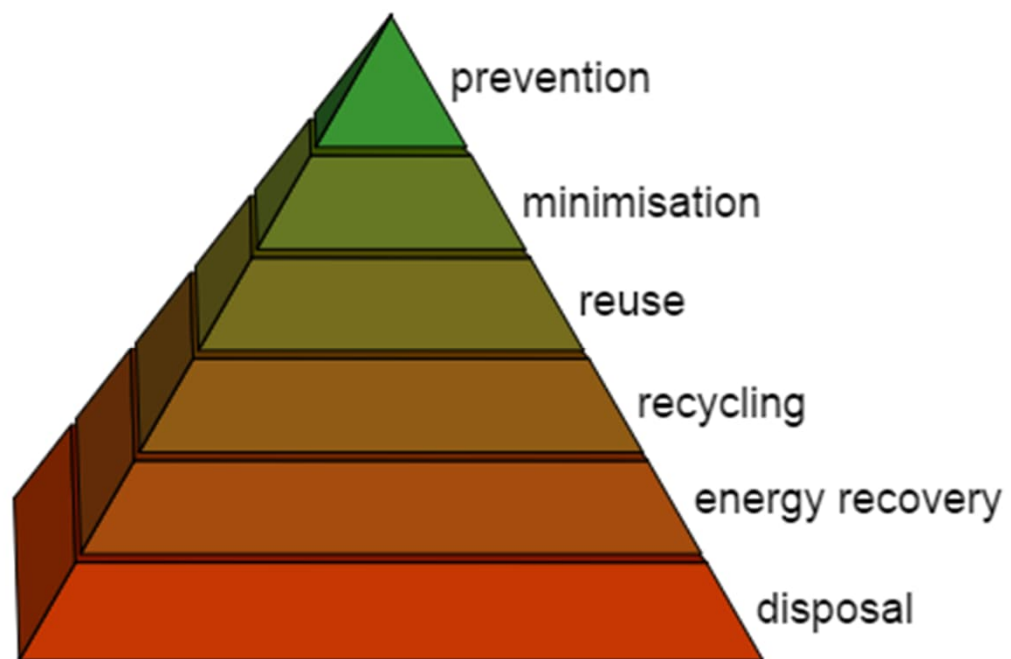
Resources



most
favoured
option



least
favoured
option

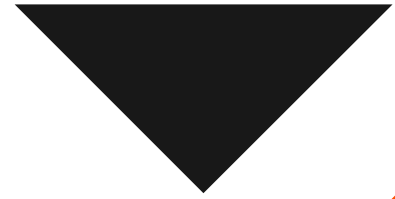


Networking



NAHMMMA

North American Hazardous Materials
Management Association



Cost Analysis

Payroll Costs			
Method	Hourly Rate	Hours	Total Cost
	(Cost w/benefits)		
Solidification (On-Site)	\$39.92	624	\$24,910.08
Solidification (Off-Site)	\$39.92	104	\$4,151.68
Paint Crusher	\$39.92	780	\$31,137.60
Recycling	\$39.92	104	\$4,151.68

Supply Costs			
Supply Type	Cost Per	Units	Total Cost
	Unit	Used	
Drum Cost-Crushing	\$45.00	80	\$3,600.00
Drum Cost-Solidification	\$45.00	160	\$7,200.00
Cubic Yard Boxes	\$78.00	46	\$3,588.00
Absorbant Compound	\$35.00	23	\$805.00

Paint Crusher				
Supply Type	# of Units	Cost Per	Maint.	Total Cost
		Unit	Cost	
Unit Cost	1	\$7,500.00	\$750.00	\$8,250.00

Cost Analysis

Pounds Processed

32154

Method	Costs Per Pound			Total Cost	Real Cost Per Pound
	Payroll Costs	Supply Costs	Disposal/ Recycling Cost Per Pound		
Solidification (On-Site)	\$24,910.08	\$7,200.00	\$0.00	\$32,110.08	\$1.00
Solidification (Off-Site)	\$4,151.68	\$4,393.00	\$0.55	\$26,229.38	\$0.82
Paint Crusher	\$31,137.60	\$4,425.00	\$0.56	\$53,568.84	\$1.67
Recycling (Full Trailer)	\$4,151.68	\$4,393.00	\$0.32	\$18,833.96	\$0.59
Recycling (Partial Trailer)	\$4,151.68	\$4,393.00	\$0.40	\$21,406.28	\$0.67



Shifting to Paint Recycling

Program Establishment Grant



Thank you

Kenneth Miller

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www.dmaswa.org

