



Better Ways to Handle Special Waste

*Department of Environmental Quality
Gaston County*

October 19, 2016



It's A Special World

- Why Are We Talking About Special Waste
 - What Is Changing
 - What To Do About It
- Alternative/Additional Disposal Options
 - Support
 - What Is Being Done
- County & Municipal Partnerships

Part III. Special Wastes

This section concerns your local government's provisions for managing waste materials that require special handling or are banned from landfilling. Please answer the questions and complete the table below indicating whether you accept these materials from the public for recycling. Please do not include materials that were accepted and then disposed of in a landfill, and please do not include tires (which are reported by counties only in PART VIII (page 10)).

Please do not include information on programs managing materials generated by government operations (i.e. motor-fleet services). Only information on services provided to the public should be included below. Information about Electronics Recycling Programs should not be included here (see page 3 and 4 instead), and electronics recycling tons should be reported on page 5.

If special wastes were only accepted as a part of an Household Hazardous Waste (HHW) Program or HHW event and not as a separate recycling effort then please do not record materials in the chart below but instead report combined with HHW materials (see question # 49).

48.

Special Waste Programs for Collecting Materials from Citizens by Waste Type	Did your local government provide public collection of this material outside of an HHW Program?		Please list # of sites	Provide data on quantities collected / managed. Please report in indicated units.			Could businesses use service?
Used Motor Oil	<input type="checkbox"/> Yes	<input type="checkbox"/> No			gallons		<input type="checkbox"/> Yes
Used Oil Filters	<input type="checkbox"/> Yes	<input type="checkbox"/> No			Barrels, or	lbs	<input type="checkbox"/> Yes
Used Antifreeze	<input type="checkbox"/> Yes	<input type="checkbox"/> No			gallons		<input type="checkbox"/> Yes
Batteries, Lead Acid	<input type="checkbox"/> Yes	<input type="checkbox"/> No			# batteries, or	lbs	<input type="checkbox"/> Yes
Batteries, Dry Cell	<input type="checkbox"/> Yes	<input type="checkbox"/> No			lbs		<input type="checkbox"/> Yes
Fluorescent Bulbs/Lights Containing Mercury	<input type="checkbox"/> Yes	<input type="checkbox"/> No			lbs, or	# bulbs	<input type="checkbox"/> Yes
Propane Tanks	<input type="checkbox"/> Yes	<input type="checkbox"/> No			lbs, or	# tanks	<input type="checkbox"/> Yes
Used Cooking Oil / Waste Vegetable Oil	<input type="checkbox"/> Yes	<input type="checkbox"/> No			lbs, or	gallons	<input type="checkbox"/> Yes
Other Special Wastes - please provide waste type here: _____	<input type="checkbox"/> Yes	<input type="checkbox"/> No			lbs		<input type="checkbox"/> Yes
Pesticide Containers (NCDA Program, not pesticides themselves)	<input type="checkbox"/> Yes	<input type="checkbox"/> No			lbs, or	# containers	n/a
NCDA Pesticide Disposal Assistance Program (for management of pesticides, not containers)	<input type="checkbox"/> Yes	<input type="checkbox"/> No			lbs		n/a
Latex Paint (do not include paint collected at HHW event or by a paint exchange program)	<input type="checkbox"/> Yes	<input type="checkbox"/> No			gals, or	lbs	<input type="checkbox"/> Yes

Household Hazardous Waste (HHW) and Conditionally Exempt Small Quantity Generator (CESQG) Program or Event

49. Did your local government provide specifically for the collection of household hazardous waste? ☐ Yes ☐ No

If Yes, please respond to the following questions:

a. Was it collected at a permanent site? ☐ Yes ☐ No

b. Did you partner or co-sponsor your HHW program with another local government? ☐ Yes ☐ No
Partner(s) _____

c. Did your HHW Program accept paint? ☐ Yes ☐ No

d. Did your program accept materials from small businesses (Conditionally Exempt Small Quantity Generators)? ☐ Yes ☐ No
If so, please estimate the amount of business material managed (in pounds) _____ pounds

e. Total quantity of materials collected by HHW / CESQG Program (in pounds) _____ pounds

f. Frequency of collection _____

g. Contractor(s) involved _____

h. Estimated cost of the program \$ _____

Why So Special?

- Special Waste materials can **catch fire**, **react**, or **explode** under certain circumstances, **corrosive** or **toxic**
- To avoid the risks associated with Special Waste, it is important that people always monitor the use, storage, and **disposal** of products with potentially hazardous substances.
- Improper disposal of Special Waste can include pouring them down the drain, on the ground, into storm sewers, **or in some cases putting them out with the regular trash.**
- Certain types of Special Waste have the potential to **cause physical injury to sanitation workers,** contaminate septic tanks or wastewater treatment systems if poured down drains or toilets.



Worker Concerns

- Garbage contains every type of hazardous material imaginable from battery acid to bleach, pesticides to hypodermic needles. Even radioactive waste material has reportedly been found in normal residential trash from time to time.
- Sanitation workers face a fatality risk that is 10 times higher than workers in all other industries, and their injury risk is 2.5 times higher than miners.
- CNN Reports Sanitation workers our 8th in most dangerous jobs.
- Workers face risk of chemical exposures from improperly disposed of products from households and small businesses.
- Hazards can be in liquid or powered form.
- Hazards can affects skin, eyes and lungs.

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Worker Safety



- Conduct workplace hazard assessments.
- **Implement safe work procedures and provide correct personal protective equipment** at no cost to workers.
- Provide health and **safety training** to workers in a language they understand.
- Sanitation workers should wear long pants, long sleeves, work gloves and heavy boots in all weather.
- Create exposure control plans for workers.
- Limit extended work shifts as often as possible.
- Provide access to wash facilities, showers and potable drinking water.
- If you find something during your routine that you believe to be unsafe or hazardous, report it before handling it. It's always better to be safe than sorry.



Operational Concerns

- Banned From Landfill
- May Require Special Permit
- Need Staff On Site
- Staff May Need Training
- Requires Special Handling
 - Where can you collect it
 - Where can you store it
 - How long can you store it
- Can Be Expensive To Manage



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- Where not talking the hottest band in the land
- Keep it Simple – Not always the best plan with special waste
- For cost you can save with multiple vendors



Your Every Day Run Of The Mill Special Wastes

- Automotive Waste

- Used Motor Oil
- Used Oil Filters
- Used Antifreeze

- Batteries

- Lead Acid
- Dry Cell

- Fluorescent Bulbs

- Mercury Thermostats

- Pesticide Containers

- Used Cooking Oil

- Textiles

- Propane Tanks

- Can be collected at all sites
- Have well establish markets
- Low or no cost
- May provide revenue



Just a Little More Special

- Paint
- Pesticides
- Mattresses
- Household Hazardous Waste
- Typically collected at one site
- More expensive
- Require special training
- Require special handling





TEXTILES

5%

The U.S. EPA estimates that textile waste occupies landfill space.

70 lbs.

The average US citizen throws away 70 lbs. of clothing and other textiles annually.

85%






not recycled

While the EPA estimates that the textile industry recycles approximately 3.8 billion pounds of post-consumer textile waste (PCTW) each year, this only represents approximately 15% of all PCTW, leaving 85% in our landfills.

That's 3.8 billion pounds of PCTW per year



Used Motor Oil

Vendor	Reported Number of Users	Users Charged for Oil	Average Pick Up Fee	Users Charged for Filters	Average Drum Fee
	26	6	\$30.00	11	\$50.00
	21	13	\$83.00	16	\$52.26
Other (single report or local vendor)	14	3	\$77.50	5	\$51.67
	6	1	NA	3	\$37.50
	5	1	NA	1	\$35.00
	3	0	NA	2	\$35.85
Average			\$77.50		\$43.71
Highest Reported			\$125.00		\$125.00

- Around turn of calendar year saw changes in market – increase in fees
- Market consolidation in NC
- DEACS conducted survey of vendors best suited for local government programs



Mattresses

- **Approximately 15-20 million mattresses and box-springs are disposed of each year in the U.S.** with each piece occupying approximately 40 cubic feet or more of landfill space.
- **Mattresses are hard to compact**, and the springs can easily catch in equipment used in landfill and incinerator operations. In response, some disposal facilities require the segregation of mattresses from other solid waste, resulting in increased management costs for some communities.
- **Over 80% of each mattress (by weight) can be recycled into other useful products.**
- **Orange County – 50/week, charge \$10 each, pay \$9 each**
- **Brunswick County – Started in July, pay \$11.50 each, Do no charge fee, just standard tipping fee**



Disposal Options

	Paint	
	Fluorescent Lights	
Temp.	Mercury Thermostats	Perm.
Event	Batteries	Event
67%	Pesticides	47%
	Propane	

Paint – Posi-shell

- Alternative Daily Cover
- City of Albemarle, Gaston County, Wake County, New Hanover County
- What you can do
 - Collect latex paint from residents
 - Bulk Paint
 - Use on your landfill or work with other landfill
 - Divert from costly HHW program



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Mercury Containing Products

- Fluorescent Lights & Mercury Containing Thermostats
 - Mercury vapor released when broken during collection = inhalation hazard
 - State Convenience Contract for bulbs - <http://www.pandc.nc.gov/926b.pdf>
 - Thermostat Recycling Corporation - <http://www.thermostat-recycle.org/>
 - Promote Retail Take Back

Material	Contract Price	Vendor X	Vendor Y
Light Tubes / Linear Ft	\$0.04	\$0.35	
Light Tubes / Pound	\$0.32		\$0.75
CFL Each	\$0.24	\$0.75	
CFL / Pound	\$0.32		\$5.11

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Pesticide Collection

- Funded by Pesticide Disposal Assistance Program (PDAP) – Speak to PDAP prior to collecting pesticides
- Can be collected as part of HHW program or stand alone event

<http://www.ncagr.gov/SPCAP/pesticides/PDAP/>

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Propane Tanks



- Blue Rhino

- **Collect and Store:** Accept and safely store gas grill propane tanks that meet the Rhino Recycle Acceptance Guidelines. Minimum quantity of 36 is required to schedule a pick-up.
- **Schedule Pick-up:** Once you have reached the minimum pick-up requirements call 1-888-753-7159 or e-mail us at customercareleads2@bluerhino.com to schedule a pick-up.
- **Watch us Drive Away:** Blue Rhino will pick up the tanks from your facility. The tanks will then be refurbished by shot-blasting, repainting and retrofitting outdated valves and components, extending the useful life of the tank. If the tank does not meet safety and quality standards, Blue Rhino will reclaim any unused propane and recycle the steel.
- <http://www.bluerhino.com/getdoc/9b1ade3a-5cb6-466b-93eb-69894ef2aa7b/Rhino-Recycle.aspx>

- AmeriGas

- Guide residents to locate office <http://www.amerigas.com/find-amerigas-propane-locations/>

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Hang In There, Help Is On The Way

- Community Waste Reduction and Recycling Grant
- PDAP
- CRA HHW Council
- Can You Find a Partner to Help You?

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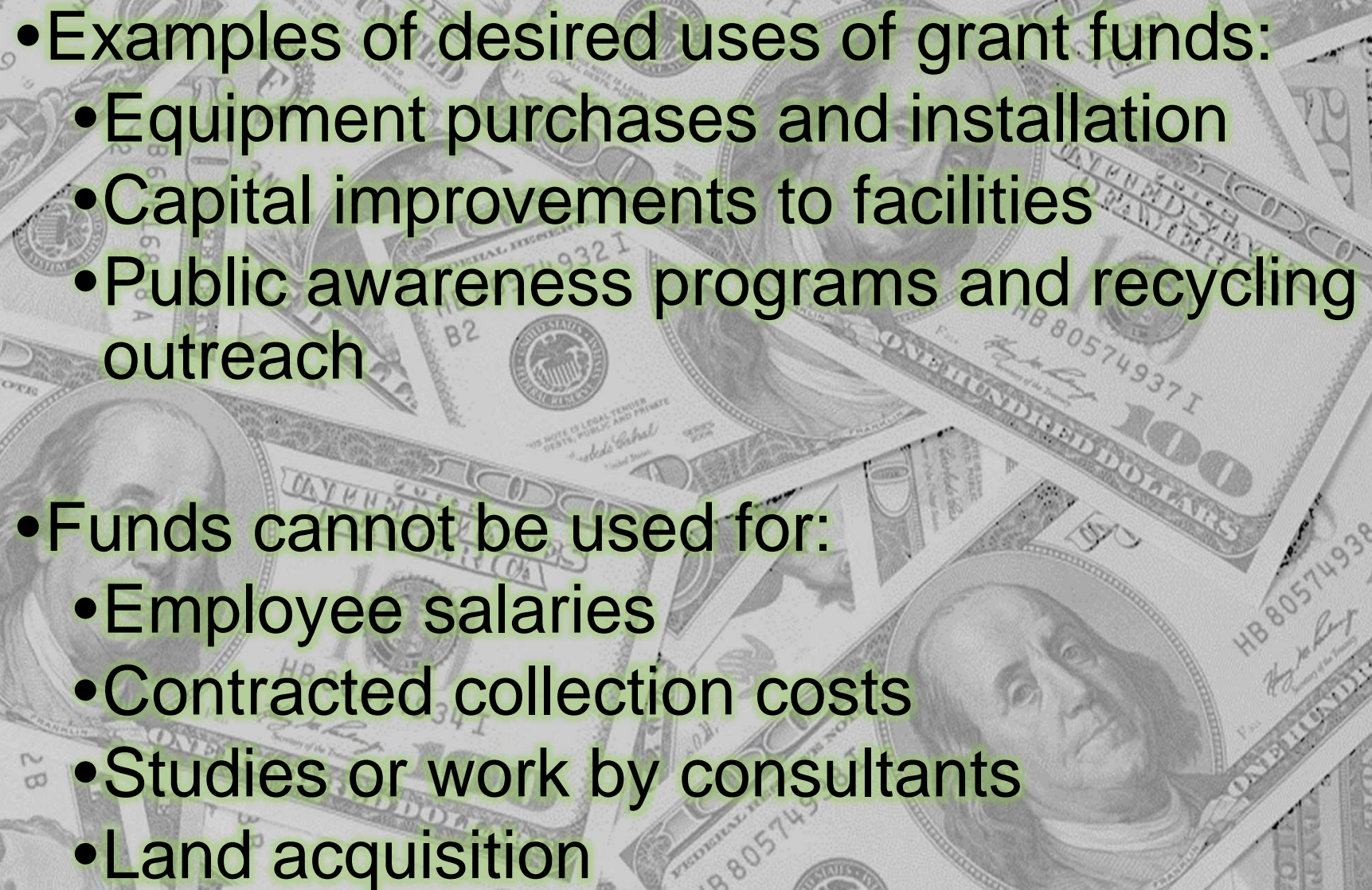
Community Waste Reduction & Recycling (CWRAR) Grants

- Annual grant cycle timed to correspond with local government budget cycle
- RFP typically released November/December
- Proposals due mid February
- Purpose: assist local governments in expanding, improving and implementing waste reduction and recycling programs
- Seeks projects that build lasting capacity to divert materials from the waste stream and / or that increase public awareness of waste reduction and recycling.
- Required match: One (1) local dollar for every five (5) dollars of grant funding
- Ex: \$5,000 grant award requires \$1,000 in matching funds
- Maximum standard award \$20,000*
- Special Project award \$30,000*

* 2017 Award amounts yet to be determined

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- The background of the slide is a collage of various US dollar bills, including \$100, \$20, and \$10 bills, scattered and overlapping. The text is overlaid on this background.
- Examples of desired uses of grant funds:
 - Equipment purchases and installation
 - Capital improvements to facilities
 - Public awareness programs and recycling outreach
 - Funds cannot be used for:
 - Employee salaries
 - Contracted collection costs
 - Studies or work by consultants
 - Land acquisition

Pesticide Disposal Assistance Program (PDAP)

- Consumer services program in the North Carolina Department of Agriculture and Consumer Services.
- Part of the Structural Pest Control and Pesticides Division
- NON-REGULATORY program
- Provides cost-free assistance to farmers and homeowners.

The goal of the Pesticide Disposal Assistance Program is to assist the citizens of North Carolina by managing and supervising the safe collection and lawful disposal of banned, out-dated, or unwanted pesticides.

You Can Contact
DERRICK BELL, JEREMY MACIEJEWSKI, or KEN CRABTREE
for Further Information at the
NCDA&CS - PESTICIDE DISPOSAL ASSISTANCE PROGRAM
(919) 733-3556

County / Municipal Partnerships

Coastal Environmental Partnership
Greensboro – Guilford County
Winston-Salem – Forsyth County
Wake County/Orange
County/Durham
Moore County – Pinehurst

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Partners in Grime

- Greensboro – Guilford County
 - Formal agreement
 - County pays 25% of program cost
- Winston-Salem – Forsyth County
 - City pays full cost, open to all County residents
 - Funded by the City of WS Water/Sewer and Stormwater Divisions
- Wake County
 - Had agreement in past with Orange County and City of Durham to accept each other waste
 - Funded by the household fee
- Moore County – Municipality Partners
 - Split Cost

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Coastal Environmental Partnership

- Hold 3 Events each year, one for each county they serve
 - Carteret, Craven and Pamlico
- 2015-16 collected 27.78 tons
- \$40,000 paid by CEP

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What is Happening in The Pines

- Annual event is sponsored by: Moore County Cooperative Extension Service, Keep Moore County Beautiful, County of Moore, Village of Pinehurst, Village of Whispering Pines, N.C. Dept. of Agriculture, the Town of Aberdeen, the Town of Southern Pines and the NCDA & CS Pesticide Disposal Assistance Program.
- Cost split by % of Population
 - Moore County 33%, Southern Pines 24%, Pinehurst 24%, Aberdeen 14%, Whispering Pines 5%
- Total cost \$34,980

Clean Harbors:	2009	2010	2011	2012	2013	2014	2015
Propane cylinders (Gas Grill Size)	26	7	9	4	6	1	7
Propane cylinders (Small)	146	42	49	71	75	68	42
8' florescent tubes	45	7	346 lbs	252 lbs	180 lbs	319 lbs	619 lbs
4' fluorescent tubes	252	62	1185 lbs	1120 lbs	1360 lbs	1268 lbs	1077 lbs
Sodium Lights, Metal Halides		110 lbs	18 lbs	15 lbs	180 lbs	212 lbs	
Mercury Items	30 gal		46 gal/216 lbs	30 gal	5 gal	5 gal	5 gal
Lithium Batteries	25 lbs	25 lbs		0			
Reactive Flammables	5 gal	5 gal	20 gal	0	1800 lbs		2357 lbs
Ni-Cad Batteries	5 gal		20 gal	21 gal	16 gal	30 gal	1 gal
Lead Acid Batteries	5 gal		500 lbs ?	542 lbs	98 gal	5 gal	910 lbs
Mixed Batteries		16 gal					
PCB's	25 lbs			0			
Paint	48,066 lbs	29,100 lbs	39,640	26,080	22140 lbs	34438 lbs	42620 lbs
All other materials combined	14,723 lbs	8,089 lbs	17,799 lbs	12, 876 lbs	7175 lbs	7587 lbs	18173 lbs

HHW Meets the Curbside



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- Driver had just emptied a cart containing unknown chemicals began to react
- Driver told to get out of the truck and get down wind.
- Supervisor called 911 and reported a chemical spill with injury. Fire and EMS reported to the scene. Fire personnel entered the hopper on the truck in hazmat gear. Driver attended to by the EMS. Later transported to hospital and released after observation.
- Contained the chemicals back into the cart and sealed it. The cart was transported to Public Services where it stayed until our Household Hazardous Waste collection day. The chemicals were still in their original containers so they were accepted by the collection personnel.
- Educate the public with pamphlets and presentations at area schools about what to put in our carts and what not to put in the carts.
- Still get paint in the carts but have not had a chemical incident reoccurrence.

Suggestions for Special Wastes

- Establish programs that can be a revenue source (oil, lead-acid batteries)
- Many special waste programs can be started at little to no cost
- Keep containers well labeled
- Place all special waste collection in site of an attendant
- When you do not offer a service provide information to citizens on alternatives
- You should provide a program for all banned items
- Find a partner



Questions



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