

# HOUSEHOLD HAZARDOUS WASTE (HHW) TECHNICAL RESOURCE GUIDE

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# DEFINING

§ Household Hazardous Waste is exempt from other Haz Waste that is regulated under Subtitle C of the Resource Conservation & Recovery Act (RCRA)

§ Regulated under Subtitle D as solid waste, so covered by federal, state and local laws

§ This exclusion includes wastes generated by “normal” household activities, i.e. routine yard and house maintenance

§ To be covered by HHW exemption, must meet two criteria

- ✓ Waste must be generated by individuals on the premise of a temporary or permanent residence, and
- ✓ Waste stream must be composed primarily of materials found in wastes generated by consumers in their homes

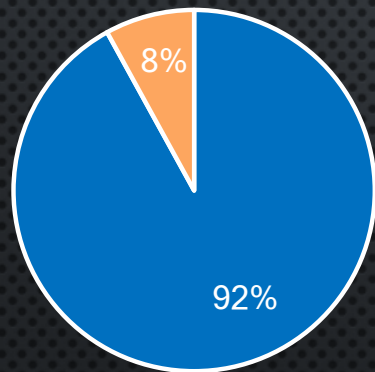




# HHW PROGRAMS IN NORTH CAROLINA

(FY20-21)

% of Total HHW Collected  
by Program Type



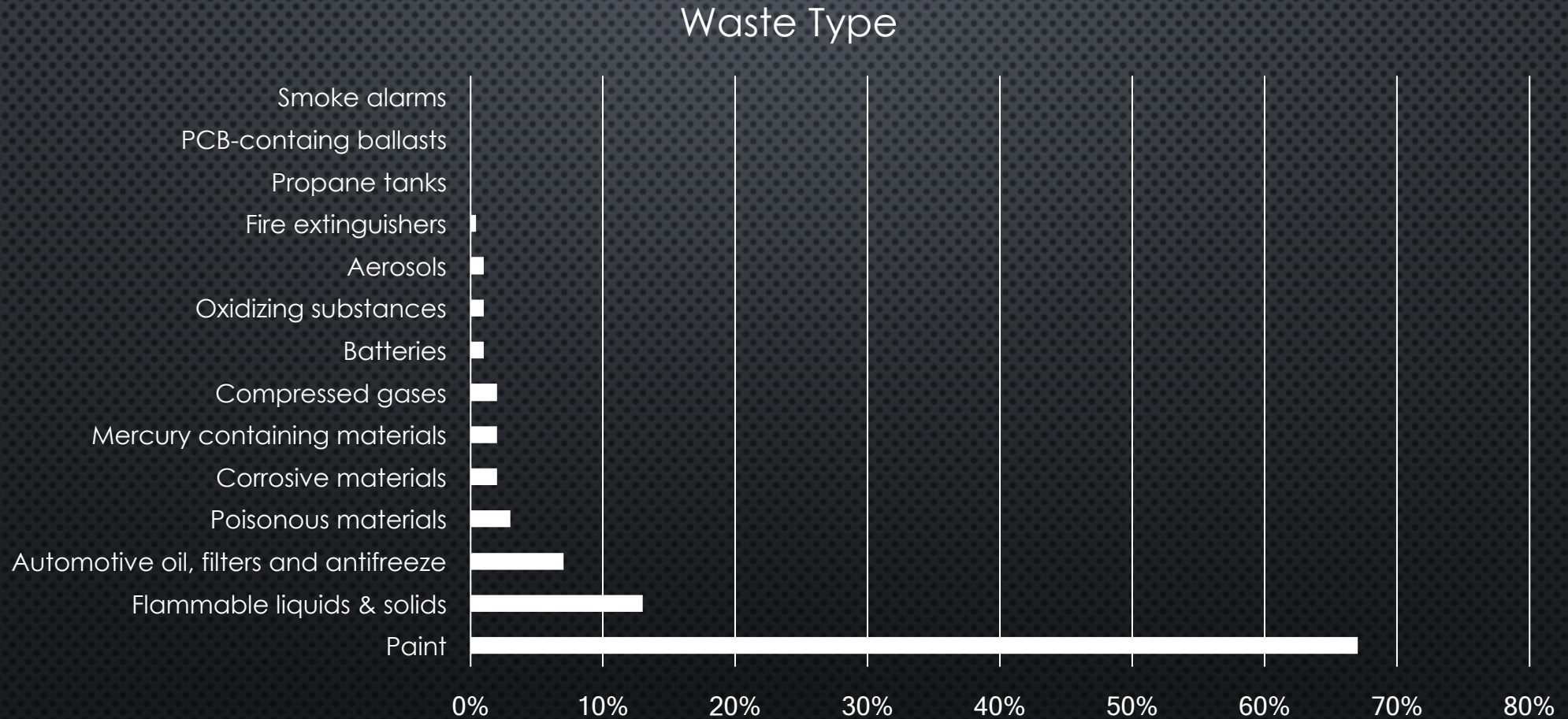
■ Permanent Facilities ■ Temporary Events

§ 24 local governments operate temporary collection events  
§ Collected 373 tons of HHW, 8% of total HHW collected

§ 22 local governments operate permanent collection facilities  
§ Collected 4,234 tons of HHW, 92% of total HHW collected



# BREAKDOWN OF HHW COLLECTED





## TYPES OF HHW COLLECTIONS

- § Single Day
- § Permanent
- § CURBSIDE
- § Very Small Quantity Generator (VSQG)
- § **Milk Run**



# SINGLE DAY EVENTS

## § ADVANTAGES

- a specific program date
- flexible collection time
- items collected can be broad or narrow depending on funding
- permitting is straightforward
- positive media coverage
- flexible site selection (fairgrounds, civic center parking lots, etc.)
- manageable costs

## § LIMITATIONS

- collect much less material than permanent
- planning can be time-consuming
- heavy reliance must be placed on selected contractors
- site setup and breakdown makes for a long day
- the ability to use creative, cost-saving avenues of site and vendors are limited
- first-time HHW events can experience pent-up demand and large volumes of material.



# MILK RUN COLLECTION (VARIATION OF SINGLE DAY)

## Typical Procedure:

- 1) A schedule of collection locations, dates, and times are advertised throughout the county well in advance of the collection event
- 2) The county or contractor mobilizes a service vehicle and a small number of trained staff members
- 3) A small operations area is established at each predetermined collection site where HHW is collected from residents

## § ADVANTAGES

- optimum participation in areas where a network of SW convenience centers already exists
- collection requires a small number of personnel
- limited setup and breakdown
- collection is convenient for residents
- can provide full-county coverage

## § LIMITATIONS

- planning and advertising must be completed & implemented far in advance of collection days
- media coverage can be less eye-catching than the single-day single-site collection
- each collection location will be limited to a specific day and timeframe



# CURBSIDE COLLECTION (VARIATION OF SINGLE DAY)

## Typical Procedure:

- 1) A schedule of collection routes and dates are advertised throughout the county well in advance of the collection event
- 2) The county or contractor mobilizes a service vehicle and a small number of trained staff members

## § ADVANTAGES

- optimum participation due to utilization of established trash collection routes
- collection requires a small number of personnel
- limited setup and breakdown
- collection is convenient for residents
- can provide full-county coverage

## § LIMITATIONS

- planning and advertising must be completed & implemented far in advance of collection day
- media coverage can be less eye-catching than the single-day single-site collection
- most expensive type of single day collections



# PERMANENT COLLECTION FACILITY

## § ADVANTAGES

- Most cost-effective per residential participant
- Staffing flexibility (employees, contractors, volunteers, community service, etc)
- Could implement reuse and/or exchange programs easily
- Some operating supplies at no cost

## § LIMITATIONS

- Site location and permitting procedures are more extensive
- Initial startup costs can be a hurdle without sufficient planning
- Continuous oversight is necessary to maintain and grow permanent HHW programs



# VERY SMALL QUANTITY GENERATOR (VSQG)

§ Businesses that generate small amounts of hazardous waste (no more than 220 pounds of hazardous waste per month)

§ Exempt from most hazardous waste regulations that apply to small and large quantity hazardous waste generators

§ North Carolina solid waste management rules are more stringent than those of the EPA and prohibit disposal of hazardous waste, including VSQG hazardous wastes, in municipal solid waste landfills

§ NC DEQ Division of Waste Management allows management of VSQG hazardous wastes at HHW collection facilities that are located on and operated by a local government

§ Considerations:

- Ensuring that the business is only a VSQG
- VSQGs could overwhelm single-day event collections designed for residents
- Local governments can also charge VSQGs
- Totally separate collection



# VENDORS



§ Wide variety, Sole Vendor or Multiple?

§ Resources:

- List in Technical Guide
- NC Recycling Markets Directory
- NC Department of Administration Term Contracts
- SC DOA Division of Procurement Services Term Contracts
- NC Department of Agriculture & Consumer Services PDAP
- SC Department of Agriculture

§ Considerations:

- Talk to references/HHW Council
- Technology for disposal/recycling
- Conduct audit



# PERMITTING & APPLICATION PROCESSES

§ Dependent on type of HHW collection

§ Permanent:

- Permit to construct
- Permit to operate
- Operations Plan
- Contingency Plan
- Annual Report

§ Temporary:

- Valid for that day only
- Report for each event

§ VSQG:

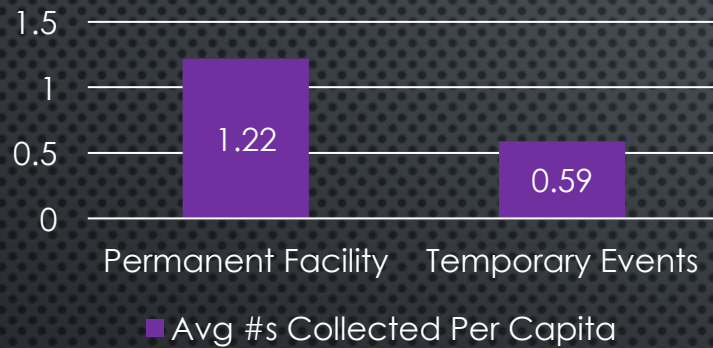
- If separate from single day event
- Must meet specific requirements



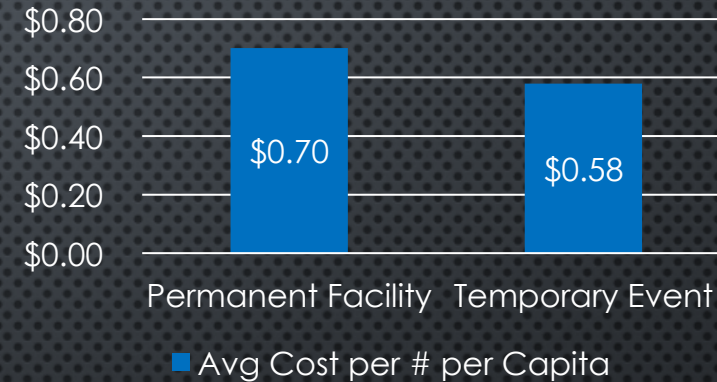


# COSTS & FUNDING

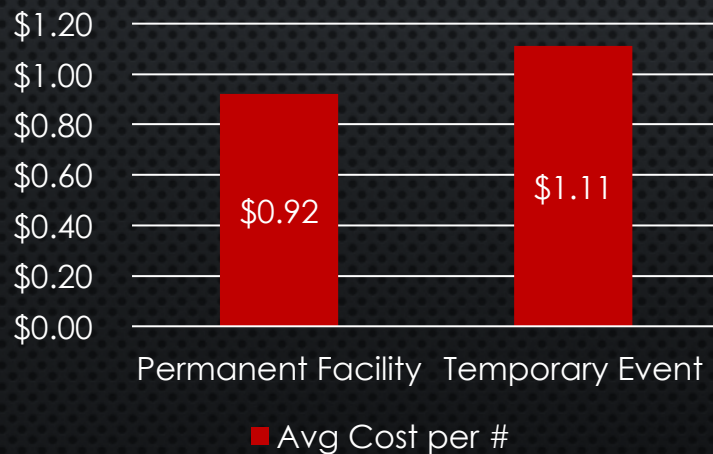
## Avg #s Collected Per Capita



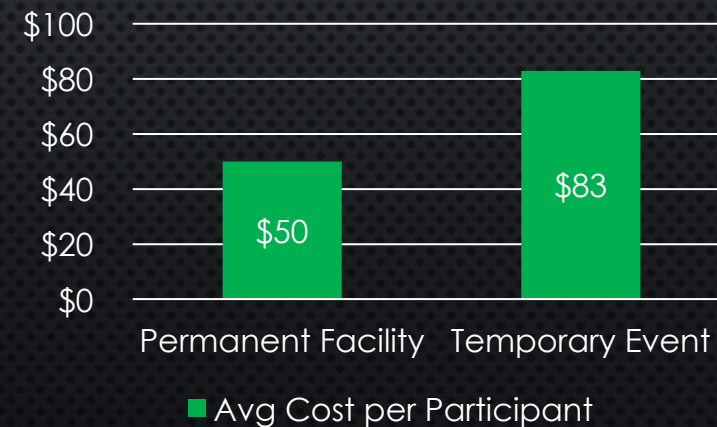
## Avg Cost per # per Capita



## Avg Cost per #



## Avg Cost per Participant





# COSTS & FUNDING

## § Funding Mechanisms



§ Tipping Fees

§ Water/Sewer Bill

§ Household Solid Waste or Availability Fee

§ Annual Budget

§ Sponsorship/Ownership

§ Grants



# COST SAVING TIPS



§ NC/SC Department of Agriculture (Pesticides)

§ Limit Pounds per car and/or overall collection

§ Limit Latex paint

§ Swap Shop

§ Use salvaged materials

§ Use multiple contractors

§ Contractor negotiations

§ Regional programs

§ Review insurance policy

§ Provide labor to support contractor's staff

§ Volunteer labor

§ Donated space/land



# PLANNING



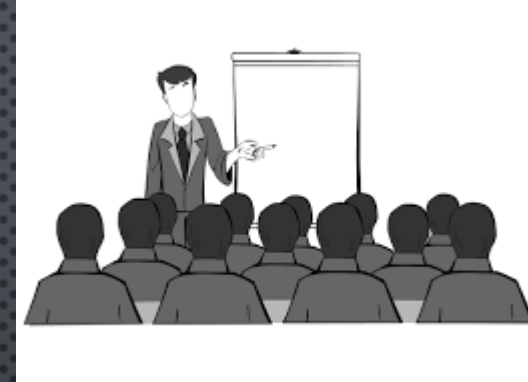
- § Participation & Waste Volumes
- § Surveys
- § Collection Site(s)
- § Buildings for Permanent Facilities
- § Staffing
- § Education & Advertising
- § Collecting other material
- § Local government reuse



# TRAINING

## § OSHA

- Hazard Communication
- HAZWOPER



## § Trained for specific duties

- In-house Staff
- Contractor
- Volunteers



## § Emergency Plan



# APPENDICES

## § RFPs

- Permanent Facility
- Temporary Event

## § Operations & Contingency Plans for Permanent Facilities

- Mecklenburg Co
- Brunswick Co

## § Planning & Outreach

- Planning Timeline for Temporary One-Day Event
- Participant Survey
- HHW Flyer



# WHERE TO FIND IT?

CRA Website:

<https://www.cra-recycle.org/resources/>

NCDEQ Website:

<https://deq.nc.gov/media/31258/open>



# HHW COUNCIL MEMBERS

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