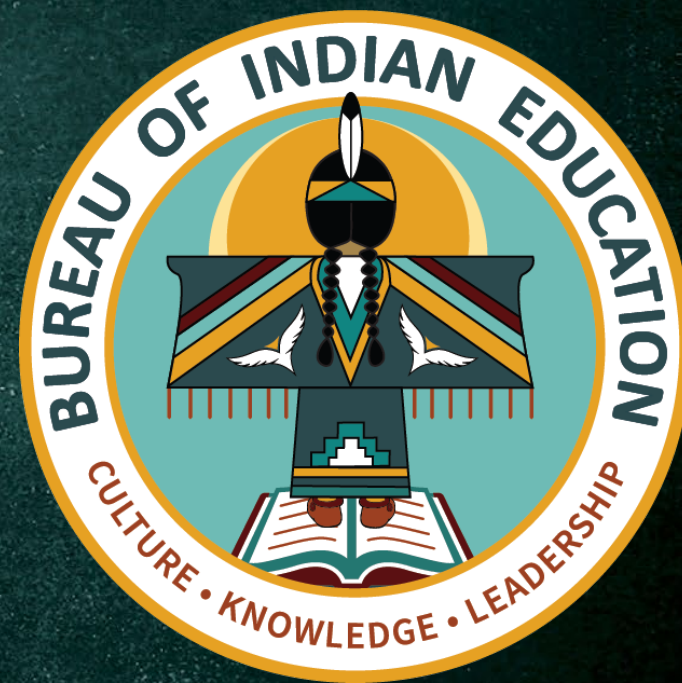




U.S. Department of the Interior  
**Bureau of Indian Education**

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# SOLID WASTE MANAGEMENT AND REPORTING







# OBJECTIVE

To increase awareness of how to properly manage solid waste in accordance with applicable regulations and tracking and reporting requirements.

# MEETING TIPS FOR ONLINE TRAINING

- ❖ 1). Place yourself on “Mute” to prevent background noise.
- ❖ 2). Use the “Chat with all” feature to ask questions.
  - ❖ Note: All participants will be able to see your comments or questions.
- ❖ 3). Every participant will receive a certificate of completion.







# INSTRUCTOR INTRODUCTION

# COURSE AGENDA

- ❖ Laws and Regulations
- ❖ DOI Sustainability Council and Lifecycle Management
- ❖ Types of Waste
- ❖ Solid Waste Management Requirements
- ❖ Effect of Solid Waste
- ❖ 3 Rs Principle
- ❖ Annual Reporting Requirements



# LAWS & REGULATIONS

- Solid Waste Disposal Act, as amended (Pub. L. 89-272)
- Resource, Conservation, and Recovery Act (RCRA)
- 40 Code of Federal Regulations (CFR) Part 243 - Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste



# SOLID WASTE

RCRA states that "solid waste" means any garbage or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, resulting from industrial, commercial, mining, and agricultural operations, and from community activities.



# SOLID WASTE (40 CFR PART 243)

Garbage, refuse, sludges, and other discarded solid materials

- Does not include hazardous wastes
- Does not include construction and demolition wastes
- Does not include infectious wastes

Stored properly and does not:

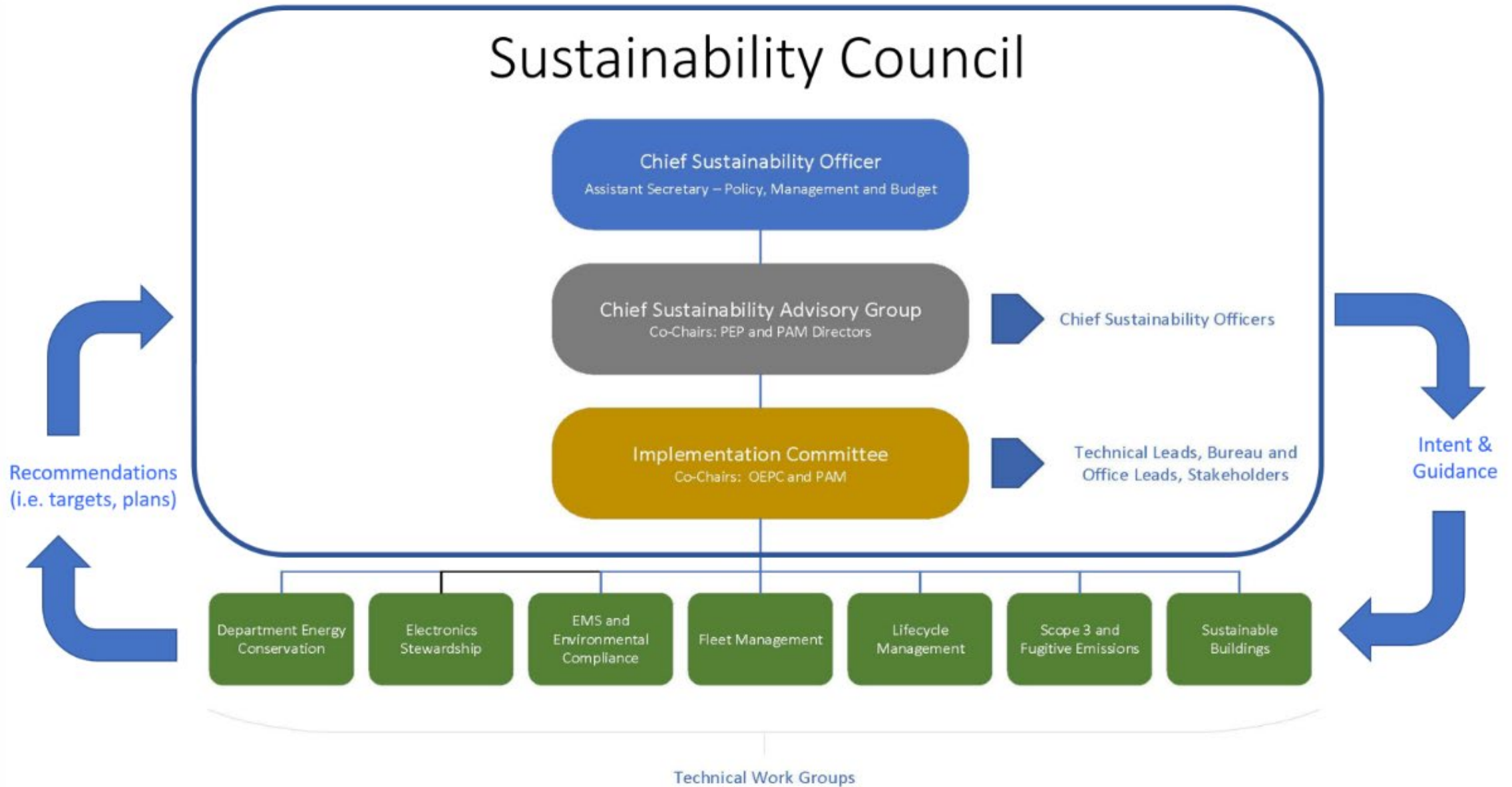
- Constitute a fire, health, safety hazard **or**
- Provide food or harborage for vectors

Contained to prevent spillage





# DOI SUSTAINABILITY COUNCIL



# LIFECYCLE MANAGEMENT



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## Lifecycle Management

- The working group that provides technical guidance on solid waste management to the DOI Sustainability Council is the Lifecycle Management Technical Working Group.
- This group develops the reporting procedures for annual solid waste management reporting that we will discuss later in this training.
- BIE Branch of Environmental Management has representatives that serve in this working group.



# TYPES OF WASTE

- Municipal Solid Waste (Household waste) - Title 40 CFR Part 258 Subtitle D of RCRA
- Construction and Demolition Waste and Debris - Title 40 CFR Part 257
- Industrial Waste (Hazardous waste) - Title 40 CFR Parts 260-279 Subtitle C of RCRA
- Biomedical waste (Hospital waste) - This type of waste is managed through OSHA. Title 29 CFR Part 1910.1030- Occupational Exposure to Bloodborne Pathogens





# MUNICIPAL SOLID WASTE

Includes trash or garbage consisting of solid phase:

- Household waste
  - Generated by quarters and dormitories
- Institutional waste
  - Generated by schools or other BIE facilities

**FUN FACT:** According to U.S. EPA, municipal solid waste landfills are the 3<sup>rd</sup> largest source of human-related methane emissions in the U.S.



# NOT MUNICIPAL SOLID WASTE

Municipal Solid Waste does not generally include

- used oil
- wood pallets
- paper
- clean wood
- plastics
- motor vehicle parts
- used tires that do not contain hazardous waste
- construction, renovation, and demolition wastes
- medical waste

These items are typically managed through some other collection and disposal method such as recycling or reuse, but they can be disposed of with municipal solid waste if that is how your local waste service provider handles these items.

Always check to ensure you are disposing of all wastes according to your local service provider's requirements.



# CONSTRUCTION AND DEMOLITION WASTE

C&D waste is not included in Municipal Solid Waste

Examples of C&D waste:

- steel
- wood products
- drywall and plaster
- brick and clay tile
- asphalt shingles
- concrete, and asphalt





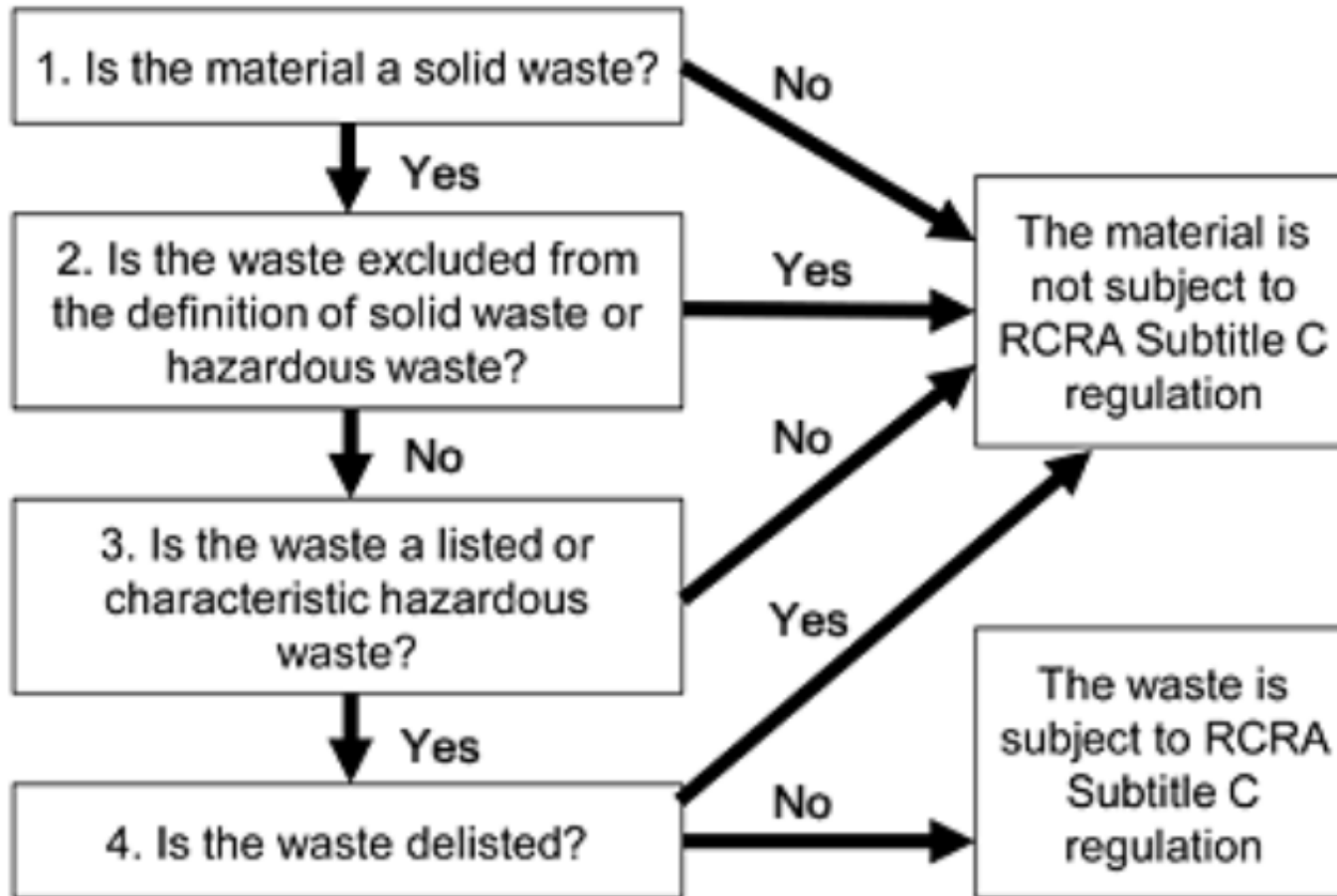
# HAZARDOUS WASTE

- Hazardous wastes have properties that make it dangerous or capable of having a harmful effect on human health or the environment, such as
  - Ignitability
  - Corrosivity
  - Reactivity
  - Toxicity
- Hazardous waste is technically a “solid waste” under the Resource Conservation and Recovery Act and the Hazardous and Solid Waste Amendments
- Hazardous wastes are identified through the waste characterization process



# HAZARDOUS WASTE

## The Hazardous Waste Identification Process



**Very specific requirements apply to the management of hazardous waste.**

**A separate training session is dedicated to hazardous and universal wastes.**

# BIOMEDICAL WASTE

- The waste generated by the school nurse, including items such as used needles, syringes, and other medical supplies, falls under the category of biomedical waste. (Title 29 CFR Part 1910.1030-Occupational Exposure to Bloodborne Pathogens (OSHA Bloodborne Pathogens Standard))
- Biomedical waste generated by the school nurse must be segregated, packaged, labeled, and disposed of according to OSHA's Bloodborne Pathogens Standard.





# SOLID WASTE MANAGEMENT REQUIREMENTS

- **Store in covered or closed containers**
  - Nonabsorbent, leakproof, durable, easily cleanable (if reusable), and designed for safe handling
  - Maintain containers and fix broken lids
    - Report container issues to your local waste service provider
  - Ensure adequate size and number of containers
    - Don't have too many or too large containers, save money on tipping fees
  - Do not overfill containers
- Remove bulky waste every 3 months
- Monitor for illegal dumping (common issue)
- Keep waste disposal records



# SOLID WASTE STORAGE



- Keep lids closed
- Do not overfill containers



# BULKY SOLID WASTE

- Bulky waste = large items that don't fit in regular trash
- Proper storage of bulky waste
  - Remove doors from large appliances
  - Cover item(s)
    - Prevent creating nuisance, pest harborage, and water collection
  - Remove every 3 months
  - Store neatly, in one area





# SOLID WASTE MANAGEMENT EXAMPLES



# SOLID WASTE MANAGEMENT EXAMPLES



# FREQUENT VIOLATIONS

Failure to:

- 1 Store food waste in covered container
- 2 Remove bulky waste every 3 months
- 3 Monitor illegal dumping
- 4 Store waste in healthy and safe manner
- 5 Frequently recycle, dispose e-waste



# EFFECTS OF SOLID WASTE

- Health Hazards
- Environmental Impacts





# HEALTH HAZARDS

- If solid wastes are not collected, stored, and disposed of properly, it may create unsanitary conditions which can lead to
  - Pest infestation (e.g., cockroaches and mice),
  - Vector-borne disease (e.g., west nile or hantavirus),
  - Hazardous substances (e.g., human waste or chemicals),
  - Air pollution (e.g., asthma triggers from excess dust and infectious waste),
  - Water pollution (e.g., leachate getting into groundwater), and
  - Potential safety concerns (e.g., needles, sharps, and trip hazards).
- Excess trash can also have indirect health effects by increasing stress and decreasing likelihood of exercise.



# ENVIRONMENTAL IMPACTS

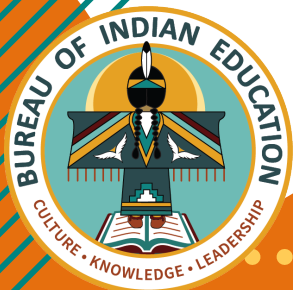
- Contamination of air, water, and soil
- Harm to wildlife, fish, and their habitats
- Plastic pollution (microplastics)
- Increased fire hazards
- Impacts on the appearance of the natural environment





How trash enters creeks and waterways. Image courtesy of The Santa Clara Valley Urban Runoff Pollution Prevention Program

Image Source: U.S. EPA



# 3 R PRINCIPLE

- One of the requirements for solid waste management is diverting waste from the landfill.
  - Executive Order 14057
- DOI has established Bureau level targets for solid waste diversion.
- BIE facilities can use the **3 Rs (Reduce, Reuse and Recycle)** to help manage their solid waste and reduce the amount of waste being sent to landfills.





# REDUCE

- Buy in bulk to reduce packaging
- Take reusable bags to carry your purchases home
- Purchase a reusable water bottle/Install water bottle filling stations
- Say "no" to a plastic straws in cafeterias and when out to eat
- Utilize a coffee mug instead of using disposable cups and avoid single-use k-cups in the workplace
- Choose to "go paperless"
  - Print double-sided and in grayscale; you'll save ink, paper, and money!
- Don't overbuy chemicals, food, consumables, materials, etc.



# REUSE

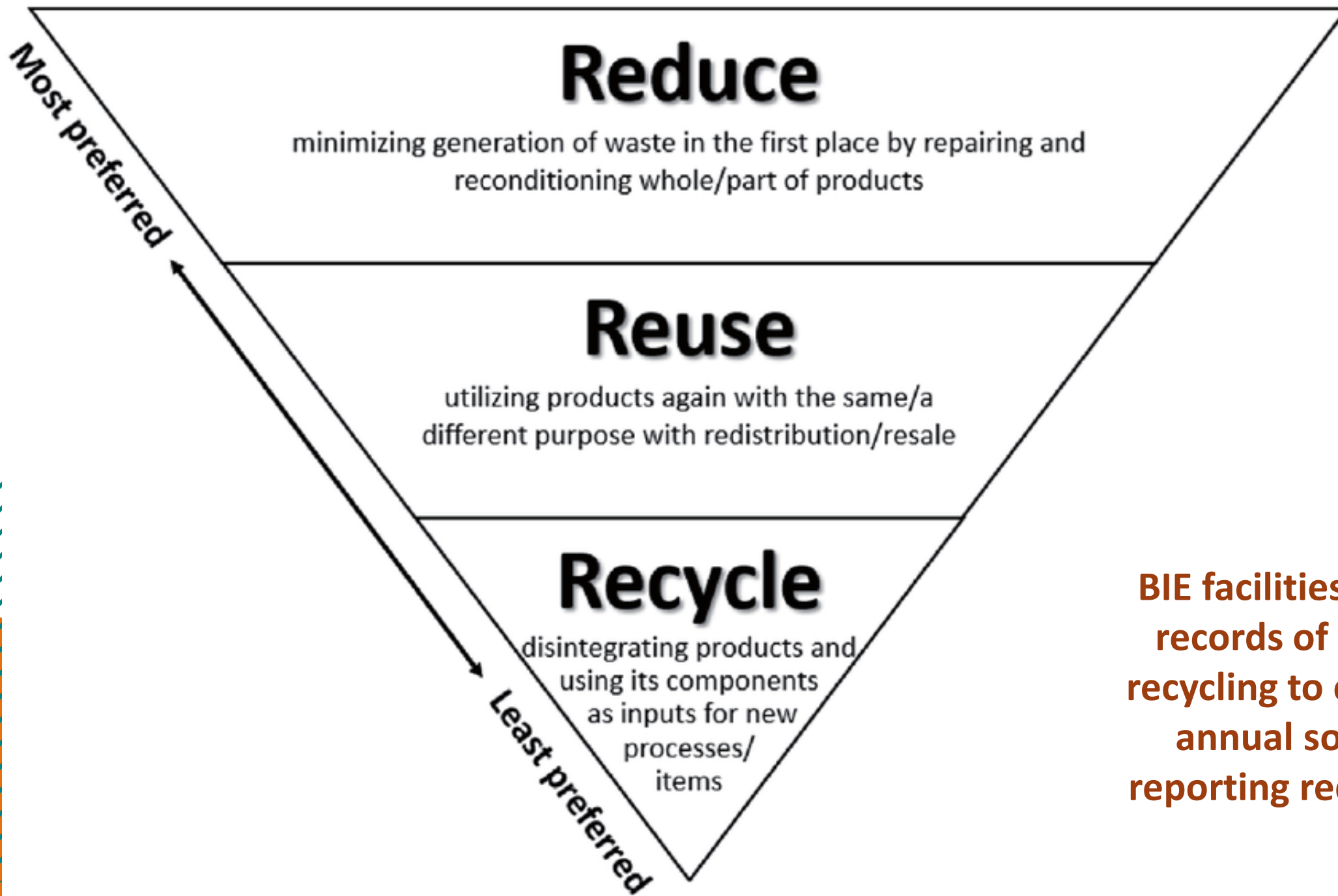
- Upcycling is the reuse of discarded objects in such a way to create a product of higher quality or something different than the value of the original.
- Redistribute/share resources within on-site departments
- Donate: Donate items you no longer need
  - Be sure to follow all Property Management policies
- Check GSAXcess® before buying new products



# RECYCLE

- Recycling is changing discarded materials into new products in order to avoid using more virgin resources
  - Give waste a second chance before disposing of it in a landfill
  - Recycling is the last — and most commonly used — of the 3 Rs.
- Ensure sites have adequate number of recycling containers
- Educate staff and students on recycling options
- Work with local municipality to understand recycling limitations





**BIE facilities must keep records of reuse and recycling to comply with annual solid waste reporting requirements.**



# ANNUAL SOLID WASTE REPORTING

- All DOI Bureaus and Offices are required to report solid waste data on an annual basis.
- BIE Branch of Environmental Management compiles information collected from the schools and submits a Bureau level report to DOI.
- This reporting process requires detailed input from BIE facilities.
  - In FY 2024, BIE BEM collected FY 2023 solid waste data from all Bureau Operated Schools using the DOI Solid Waste Management Database.
  - This is a recurring requirement every year.
  - BIE BEM will provide more detailed training in preparation for the next reporting cycle.



# ANNUAL SOLID WASTE REPORTING

- **Reported data includes**

- Actions taken to minimize solid waste
- How much trash you sent to the landfill
- How much construction and demolition waste you sent to the landfill
- Details on all the things you recycled and how much of each
- Efforts to reduce or eliminate single use plastic products
- Information on wastes generated by unusual events, like storm debris

**BIE facilities must maintain detailed records to support this reporting requirement - More details will be provided in future training events**



# RESOURCES

Facts and Figures about Materials, Waste and Recycling:

<https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling>

What You Can Do About Trash Pollution:

<https://www.epa.gov/trash-free-waters/what-you-can-do-about-trash-pollution>

Plastic Pollution:

<https://www.epa.gov/trash-free-waters/learn-about-aquatic-trash#4>





**QUESTIONS?**





# BIE BEM PROGRAM CONTACTS



## **Harold John Clymo**

Program Manager, Supervisory Environmental  
Protection Specialist

Albuquerque Office

[Harold.Clymo@bie.edu](mailto:Harold.Clymo@bie.edu)

## **Candace DeSantis**

Lead Environmental Protection  
Specialist Contracting Officer's  
Representative

Albuquerque Office

[Candace.Desantis@bie.edu](mailto:Candace.Desantis@bie.edu)

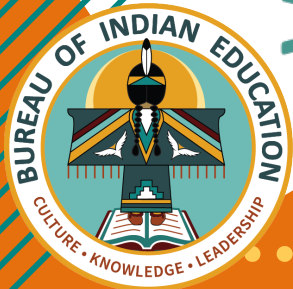
## **Henryetta Price**

Environmental Protection  
Specialist

Solid Waste Lead

Albuquerque Office

[Henryetta.Price@bie.edu](mailto:Henryetta.Price@bie.edu)



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Ahéhee HiriweTudahe  
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Thank You Tansi