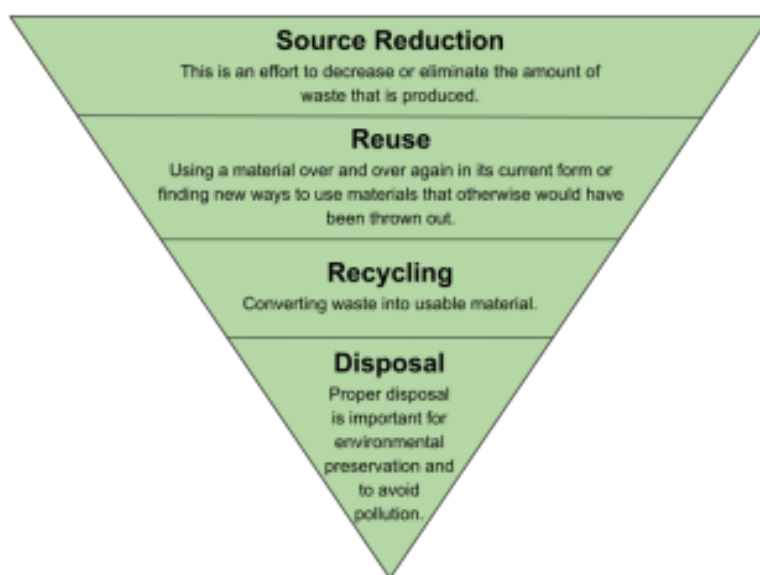


Sustainable Labs: Waste Reduction Guidelines

Laboratories purchase a significant amount of single-use plastics which must be disposed of in the waste-to-landfill. By integrating sustainable lab practices into these spaces, it is possible to decrease this waste.

NC State Waste Reduction and Recycling (WRR) utilizes the following waste management hierarchy to rank the most favorable to least favorable actions to promote waste reduction on campus. This hierarchy starts with **source reduction** techniques as the preferred action, followed by the **reuse** of lab materials, **recycling** when available, and finally, utilizing proper landfill **disposal** methods.



All campus labs should utilize the waste management hierarchy to reduce waste-to-landfill. Refer to the following actions to promote a sustainable lab:

Source Reduction

Before placing external orders:

- Check within your lab for available materials
- Maintain an active inventory of lab items
- Visit the NC State surplus inventory

When placing orders:

- Purchase products with ACT and ENERGY STAR labels
- Choose companies that offer vendor take-back programs

Reuse

- When possible, reuse lab materials before immediate disposal
- Substitute plasticware for glassware

Recycling

NC State WRR provides recycling options for many items. Please refer to the following [Recycling Guide](#) for more common, accepted items. Labs typically utilize items that cannot be placed into standard recycling bins, including:

[Plastic Film](#)

Plastic film is a category of soft plastic that is similar to plastic grocery bags. Plastic film does not decompose, instead, it photodegrades into microplastics. These tiny pieces become airborne and get blown into the soil, storm drains, and our waterways. Plastic film can not be placed in standard recycling bins. Instead, to properly recycle plastic film, labs should:

1. Request plastic film recycling containers from WRR
 - Contact: recycling@ncsu.edu, 919-515-9421
2. Understand what [plastic film](#) can and cannot be recycled
3. Before recycling any item, ensure that it is clean and dry
4. Once full, tie the large bag of film shut and place next to the yellow electronics recycling cart for collection

[Pipette Tip Box](#)

Pipette tip boxes are a large source of laboratory waste. It is possible to repurchase just the inserts and reuse the box you already have to reduce waste. However, if your lab must discard the options, labs should:

1. Request a pipette tip box roll cart from WRR
 - Contact: recycling@ncsu.edu, 919-515-9421
2. Before placing pipette tip box into the cart, ensure the box is empty, clean and dry and only a #5 PP plastic. No other type of plastic is acceptable.
3. Once full, place the cart on your building's loading dock for collection

[Styrofoam](#)

NC State has partnered with a styrofoam recycling center to promote campus waste reduction efforts. Styrofoam can not be placed in standard recycling bins. Instead, to properly recycle styrofoam, labs should:

1. Collect all styrofoam utilizing clear bags (can be provided by Housekeeping)
2. Ensure styrofoam is clean, dry, has labels or tape removed. Only white, block

- styrofoam is acceptable. No packing peanuts.
3. Once full, tie bags shut and place by the yellow electronics recycling cart at building's service area for collection

[Organics \(Compost\)](#)

Food, agriculture, and organic research plays a vital role in many lab spaces on campus. Labs that generate organic waste should contact WRR to discuss compost collection procedures.

- Contact: recycling@ncsu.edu, 919-515-9421

Disposal

Waste that cannot be reduced through planning, reuse and/or recycling should be disposed of safely and according to campus waste management guidelines in the available waste to landfill dumpsters. Exceptions include:

[Autoclave Waste](#)

For information regarding the autoclaved items process, please contact [Environmental Health and Safety](#) at 919-515-7915. Labs must follow [Environmental Health and Safety Guidelines](#) when disposing of waste into the autoclave.

Bulk Waste

Bulk waste and recycling generated on campus, but not accepted in state waste-to-landfill dumpsters, may be able to be taken to the [Dearstyne Convenience Site](#). For information on accepted items and to receive a letter of permission, please contact Waste Reduction and Recycling at recycling@ncsu.edu, 919-515-9421.