

# SUSTAINABILITY NEWS

Chemistry Department | University of Michigan



## WASTE CONTAINERS

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In two exciting pilots, we have made huge progress in reducing the environmental impact of waste containers themselves. Interested for your lab? Find out more below!

## DEPARTMENT SUSTAINABILITY

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Interested in what sustainability benchmarks and progress the Department has been able to achieve in the last semester? Find out more on 3.

## SUSTAINABILITY SHOUTOUTS

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Learn more about our Sustainability Advocates and Sustainable Lab of the Month.

## COMMITTEE INITIATIVES

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Learn more about the initiatives that the Sustainability Committee are currently working on.

# WASTE CONTAINER REUSE PILOT

While both solid and liquid waste containers are essential for the safe disposal of the chemical waste that we generate in the laboratory, both types of waste containers themselves generate a large amount of waste. In collaboration with our EHS specialist, Kacey Vaughn, the Sustainability Committee has launched two separate pilots to find efficient and effective workarounds to the large amount of waste generated by the waste containers themselves.

## SOLID WASTE CONTAINERS

Solid waste containers, while inexpensive, contribute significantly to our department's production of plastic waste. Therefore, a system or method to reduce the amount of plastic waste generated by our waste practices is needed. **For solid waste containers, the solution is relatively straightforward: reuse.**

Graciously, Kacey has agreed to let us start reusing our solid waste buckets. Here's how it works:

- Reach out to Kacey at [vkacey@umich.edu](mailto:vkacey@umich.edu) to get your lab started.
- Then, clearly label your solid waste buckets with "return to [the name of your lab]."
- Make sure that the solid waste bucket is clean and in returnable condition (i.e., no liquid waste).
- Once emptied, Kacey will return the empty bucket to your lab's waste closet for reuse.



## LIQUID WASTE CONTAINERS

Liquid waste containers represent both a large source of glass waste as well as a significant cost sink for our department. **Again, for liquid waste containers, the solution is relatively straightforward: reuse empty 4L solvent bottles. Here's how it works:**

- Ensure that the original solvent is evaporated or compatible with the liquid waste you will add.
- Deface the original label and place a hazardous waste sticker on top (which are available in your local waste closet).

## WASTE REDUCTION PILOT

### Solvent Bottle Reuse for Liquid Hazardous Waste

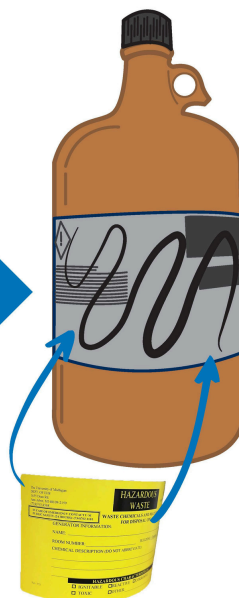
☒ Want to reduce waste?

☒ Does your lab use 4L solvent bottles?

IF SO, GRAB A WASTE STICKER AND  
MAKE YOUR OWN WASTE BOTTLE!

☒ Evaporate the old solvent.

☒ Deface the old label and place a hazardous waste sticker on top.



THIS IS A PILOT PROJECT.

Help us assess it by sending feedback or questions to [sustainable-labs@umich.edu](mailto:sustainable-labs@umich.edu)

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# DEPARTMENT SUSTAINABILITY

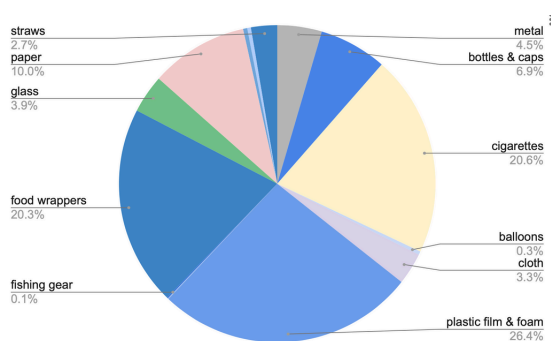
The Chemistry Department has been up to a lot in terms of sustainability while the newsletter has been on hiatus. Find a brief recap, along with a short description of our impacts, below:

## HURON RIVER CLEANUP (FALL 2025)

On September 6<sup>th</sup>, in efforts to make positive impacts on our local ecosystem, we held our tenth annual Huron River Cleanup. We had **15 teams of volunteers** head to various parks and schools in Ann Arbor and neighboring Ypsilanti. Some quick stats and fun facts for you:

- Over **6800 pieces of trash and recycling** were collected.
- Of all trash and recycling, **plastic items** were the most commonly collected, representing **77%** of all collected items. A good reminder to reduce your plastic use and recycle responsibly!

A more detailed breakdown of the collected trash can be found in the pie chart below! A big shoutout to Bobby Wolesensky and Emily Nolan for spearheading the organization for this event, and a big thanks to the Chemistry Department for sponsoring the supplies and shirts for this year. Watch out for an email about the next cleanup, scheduled for next April!



## DEPARTMENT PICNIC

On August 15, the department also hosted its annual Chemistry Department Picnic at Burns Park! This year's picnic built on the progress established at last year's picnic. Bost composting and recycling bins were again made available, and all food was served on compostable dinnerware with compostable napkins.

Thanks to all who helped support these initiatives and helped make this rendition of the event greener than ever before.



## FREEZER CHALLENGE CELEBRATION

We held an ice cream celebration for the labs who participated in this year's rendition of the Freezer Challenge and contributed to this year's total of 38.7 kWh/day saved in total energy expenditure.



# DEPARTMENT SUSTAINABILITY

## CHEMISTRY DEPARTMENT LAB SWAP SHOP STATISTICS

To reduce our environmental footprint and help labs save on equipment that is otherwise ready-to-use, the Office of Campus Sustainability runs the Lab Reuse Program, which picks up surplus lab equipment and redistributes it. As a part of the program, the Office of Campus Sustainability started the Lab Swap Shop in 1100 North University Building, right next door to Chemistry. I wrote in a previous newsletter that you can reduce the amount of money your lab spends on equipment, but are you interested in knowing exactly how much? Find some Chemistry-specific statistics below:

### SWAP SHOP REPORT CHEMISTRY DEPARTMENT | FY25

3,276

\$158,000

141

POUNDS SAVED FROM LANDFILL

ESTIMATED VALUE OF SAVED LAB RESOURCES

SWAP SHOP ORDERS

#### IMPACT PER LAB

PRINCIPAL INVESTIGATOR	SAVINGS	WEIGHT (lbs)
AULT	\$887	14.6
BAILEY	\$17	6.8
BARTLETT	\$22,200	642
BITEEN	\$368	5.5
CHEN	\$1,130	23.8
KEANE	\$6,360	64.7
KOUTMOS	\$7,670	104.5
LENHERT	\$5,770	83.1

PRINCIPAL INVESTIGATOR	SAVINGS	WEIGHT (lbs)
MALDONADO	\$2,940	78.4
MARSH	\$6,630	59.8
MCCRORY	\$9,120	28
NAGORNY	\$1,180	10.2
PRATT	\$11,000	117
SANFORD	\$492	1.4
SOELLNER	\$45,900	849
WALTER	\$748	20

#### POPULAR ITEMS



Pipet Tips  
Beakers  
Syringe Filters  
Vials  
Funnels  
Disposable Serological  
Pipettes  
Freezer Boxes  
Wide Mouth Glass  
Media Bottles  
Syringes  
96 Well Plates

#### CHEMISTRY LAB SWAP



A little bit of thrifting can go a long way! Just ask the Bartlett and Soellner Labs, who were able to save **\$22,200** and **\$45,900**, respectively, just this year alone through the Swap Shop.

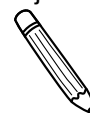
You can find the Swap Shop in Room 5004 of 1100 North University Building (NUB).

### DID YOU KNOW?

The Office of Campus Sustainability also has a recycling program for writing utensils! Send any extraneous writing supplies (with a few limitations) to **Recycle Write on 109 E. Madison St., 2993**. To find out more, visit the flyer at the following link:

[https://www.dropbox.com/scl/fo/1euz6qeiyt14iqkq2vcsq/AOIsgqWeYAUNQcepztI ZZ0E?](https://www.dropbox.com/scl/fo/1euz6qeiyt14iqkq2vcsq/AOIsgqWeYAUNQcepztI ZZ0E?dl=0&e=1&preview=Recycle-Write-Sign-2023.pdf&rlkey=zxrz5mcy18fjbkr4f1fh4x7ox)

[dl=0&e=1&preview=Recycle-Write-Sign-2023.pdf&rlkey=zxrz5mcy18fjbkr4f1fh4x7ox](https://www.dropbox.com/scl/fo/1euz6qeiyt14iqkq2vcsq/AOIsgqWeYAUNQcepztI ZZ0E?dl=0&e=1&preview=Recycle-Write-Sign-2023.pdf&rlkey=zxrz5mcy18fjbkr4f1fh4x7ox)



GET INVOLVED: [ocs.umich.edu](https://ocs.umich.edu)

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# SUSTAINABILITY SHOUTOUTS

## LAB OF THE MONTH

Keane Lab  
*Freezer Challenge Winner*

## STUDENTS OF THE MONTH

Cade Harkner & Antigone Wilson



As a department, the ten labs that participated in this year's iteration of the Freezer Challenge were able to achieve a whopping **38.7 kWh/day** in savings. However, one lab in particular made a significant impact on this figure: **the Keane Lab!** How did they do it?

Fortunately, the key change was straightforward: **changing the temperature of their -80 °C freezers to -70 °C instead.** While these chilly temperatures are required to preserve their valuable biological samples, it turns out that -70 °C is cold enough to keep their samples preserved (which are particularly sensitive as they are RNA-based). Many labs that store biological samples tend to store their samples at -80 °C, but **storing your biological samples at -80 °C only buys an extra 5 minutes of storage time if your freezer were to stop working.** As a result, if your lab is one that keeps their biological samples at -80 °C, consider switching to -70 °C instead! The risk is low, but the payoff can be huge.

# ONGOING CAMPAIGNS

## >>> COMPOSTING

Some fun new composting initiatives are coming to life in our department!

- I mentioned in the last newsletter that the Sanford and McNeil Labs were piloting compost bins for paper towels that have only been used to dry your hands.
- We are excited to announce that we have expanded this pilot to 8 more labs now (Bartlett, Montgomery, Szymczak, Ault, Ruotolo, Schultz, Lehnert and McCrory) and are **looking for more labs to expand to! Wondering how to get your lab involved?**
- First, **your lab must be certified as a Sustainable Lab by OCS.** To get your lab certified, follow the directions in the following link: <https://ocs.umich.edu/programs/workplace-initiatives/sustainable-labs/>
- Once your lab is certified, **reach out to Anne directly at [ajmcneil@umich.edu](mailto:ajmcneil@umich.edu)** to get some bins for your lab.
- Once full, the small bins can be emptied into the large compost bins found in the hallways. The compost bins can be found **next to the faculty offices in the '88 building, in the '48 building in the third-floor Grad Lounge sitting area, the Grad Lounge fridge room, outside the Ault/Ruotolo laboratory spaces, and in the Biophysics Grad Lounge.**

