



# **BOTTLED WATER PHASE OUT PLAN**

**UNIVERSITY OF LOUISVILLE**

**DECEMBER 2024**

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SUBJECT: Bottled Water Phase Out Plan

DATE: December 13, 2024

Just before the winter break in 2023, the Sustainability Council was tasked with evaluating the feasibility of phasing out single use bottled water and providing recommendations. To address this request, the Council convened an ad hoc committee composed of over 20 faculty, staff, and students. Over the past year, this committee has worked diligently to assess the impacts of bottled water on plastic pollution and carbon emissions, while also exploring similar efforts across the country.

Universities nationwide have successfully phased out bottled water, setting a clear precedent for reducing costs, plastic waste, and carbon footprints. The University of Vermont, Seattle U., and the University of California System have implemented such initiatives due to their environmental benefits and alignment with institutional sustainability goals. UofL has a unique opportunity to lead within the Commonwealth of Kentucky and the region, showcasing its commitment to the environmental, economic and social pillars of sustainability.

A few reasons for UofL to pursue this path:

1. Single-use plastic bottles contribute to pollution and strain recycling systems. Nationally, only 29% of plastic bottles are recycled.
2. The production and transportation of bottled water are energy-intensive, generating unnecessary greenhouse gas emissions.
3. This initiative aligns with UofL's existing sustainability goals and commitments, including participation in the Association for the Advancement of Sustainability in Higher Education's (AASHE's) Sustainability Tracking, Assessment, & Rating System (STARS) program where UofL is pursuing a Platinum rating as well as its role as a signatory of the Carbon Commitment.
4. Phasing out single use bottled water could lead to a significant reduction in campus waste and greenhouse gas emissions.
5. The initiative offers potential cost savings from reduced waste management and bottled water purchases.
6. By taking action now and under your leadership, UofL can enhance its reputation as a sustainability leader.

Phasing out single use bottled water aligns with UofL's culture, values, and sustainability objectives. We recommend formalizing this committee as a task force to collaborate with you on implementation, oversee the transition, and ensure the initiative's success. We are available to discuss this proposal further or provide additional details as needed.

# BOTTLED WATER PHASE OUT PLAN

UNIVERSITY OF LOUISVILLE

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# BOTTLED WATER PHASE OUT PROPOSAL SECTION 1

## THE INITIATIVE

## 1.1

The University of Louisville (UofL) President Dr. Kim Schatzel requested during a November 2023 meeting that the Sustainability Council develop a plan for phasing out the consumption of bottled water at the university. A diverse workgroup of students, faculty, and staff from across the university was assembled to meet regularly and discuss challenges, opportunities, and strategies with respect to the culture of bottled water usage across our campuses. Representatives from the Louisville Water Company and the Post-Landfill Action Network (PLAN) were brought in to consult on this work, examples from other schools were researched, and a university-wide audit of filling stations was conducted. This plan is the result of that year-long collaborative process.

This plan is designed to minimize the following negative [environmental](#), [social](#), and fiscal impacts of widespread bottled water usage:

1. **Expense:**
  - Recurring costs to the institution and to the individual associated with purchasing packaged water;
  - Recurring costs to the institution of disposing of discarded single-use bottles.
2. **Solid Waste:**
  - Burdens on the institution and the environment of having to properly manage and attempt to recycle high volumes of single-use disposable packaging.
3. **Pollution:**
  - Carbon emissions associated with the extraction, bottling, and shipping of packaged water;
  - Carbon emissions and other pollution associated with the extraction of raw materials for, and manufacture of, single-use disposable packaging;
  - Carbon emissions and other pollution associated with the hauling, sorting, and recycling (or landfilling) of empty container waste;
  - Litter and unintentional release of packaging wastes into the environment.
4. **Health Risks:**
  - Bottled water quality is less regulated and tested than municipal tap water, which is held to a higher health standard;
  - Microplastic concentrations are considerably higher in bottled water, and the potential risks to living organisms remain unknown. [Bottled water contains harmful contaminants, experts warn.](#)

We recognize that full implementation of this plan will involve some up-front costs and may result in lost revenue from bottled water sales, but since most of the costs above are currently externalized, the overall social good and benefits to the university will be worth the investment.

While this plan responds to widespread concerns about plastic pollution and its relatively low recyclability, the multiple goals outlined above would not be achieved simply by switching the material

that single-use “packaged water” comes in, nor by switching the type of beverage consumed in single-use packaging.

What this plan seeks to do is to shift the default behavior (i.e. culture) on campus from consuming single-use disposable bottled water to consuming our local tap water. The campus community will be encouraged to drink Louisville Tap from fountains, filling stations, jugs, coolers, and pitchers, and to use refillable containers of all kinds (even if some of those containers may end up becoming single-use in certain settings – e.g. a paper cup used at an event).

**The real problem this plan seeks to address is packaged water, not plastic bottles.** We will use the term “bottled water” throughout this document to refer to any kind of packaged water in single-use disposable containers.

## THE VISION

1.2

Our vision is to create a campus culture and environment where the default behavior is no longer consuming bottled water, but refilling containers with award-winning Louisville Tap. We seek a university where bottled water is no longer widely available, but instead everyone has easy access to local tap water.



## BENCHMARKING

1.3

Quantifying the number of colleges and universities that have banned single use plastic bottles on their campuses is difficult because there is no one resource that lists them. Plus, the number of schools implementing these bans seems to grow every academic year. We did, however, consult information available from the Association for the Advancement of Sustainability in Higher Education (AASHE) and the Post-Landfill Action Network (PLAN), to benchmark what other schools have done.

The following schools have either implemented or are in the process of implementing campus-wide bans of single-use plastic bottles:

- University of Virginia
- McGill University
- Bemidji State University
- University of Vermont
- Pacific Lutheran University
- University of Michigan
- [University of Ottawa \(2010\)](#)
- College of the Atlantic

- Williams College
- Cerritos College
- Emory University
- College of Environmental Science & Forestry
- Eckerd College

Additionally, the following universities are implementing bans on all single-use plastic (SUP), not just bottles:

- Washington University in St. Louis
- all California state universities

The University of Vermont was perhaps the first college in the U.S. to ban bottled water, and they claimed that it drove up sales of other bottled drinks. But most other colleges that have implemented such bans have not found that to be the case. Washington University claims that bottled beverage sales on campus have gone dramatically down since their ban was implemented. They credit their ban’s success to: a **strong campus culture of sustainability**, the **installation of many bottle filling stations**, and implementing several **initiatives that promote good nutrition**.

## TAP WATER SOURCES INVENTORY 1.4

The committee determined that increased access to tap water bottle fillers across the university will be critical to a successful phase-out of bottled water. A walk-through of campus buildings and outdoor areas identifying the number of traditional water fountains, bottle fillers, and other sources (e.g. water coolers, water dispenser, etc.) was conducted by members of the committee. **Chart 1.4.1** identifies quantity and type of water fountains available on each campus, and **Tables 1.4.1** through **1.4.3** break these totals out by campus, building, and building type. Belknap Campus outdoor fountain totals are included in **Table 1.4.4**. **Chart 1.4.1** indicates that most water fountains inside buildings on each campus are the traditional type: 68.7% on Belknap, 80.3% on HSC, and 71.4% on ShelbyHurst.

**Chart 1.4.1 Water Fountain Inventory: All Campuses**

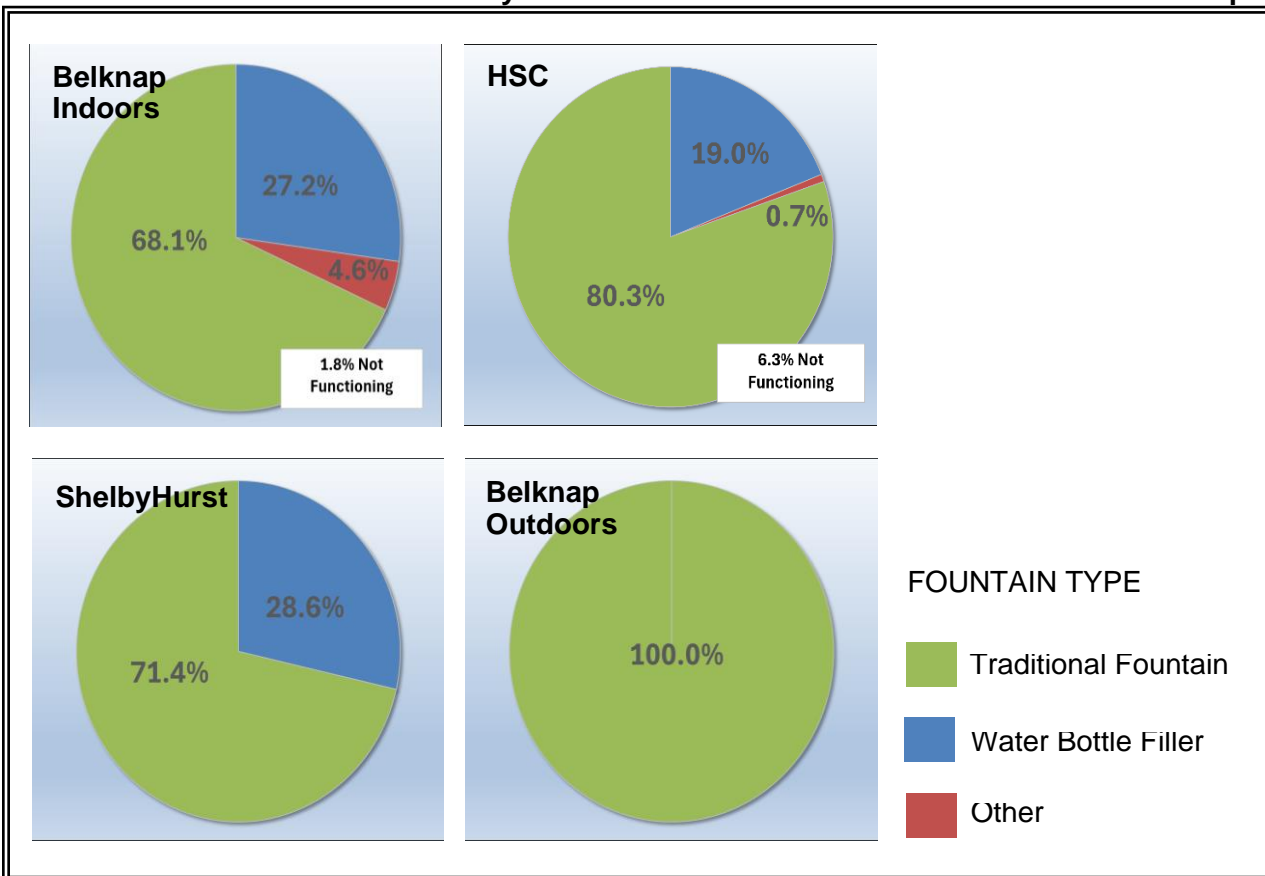


Table 1.4.1 Belknap Campus Indoor Water Fountain Inventory:

#	Building	# Traditional Fountains	# Bottle Fillers	# Other	# Not Functioning
	Name				
<b>Academic</b>					
0002	Brigman Hall	2	0	1	0
0003	Patterson Hall	2	0	0	0
0005	Oppenheimer Hall	2	0	0	0
0006	Jouett Hall	1	0	1	0
0007	Ford Hall	0	1	0	0
0008	Gardiner Hall	2	0	2	0
0009	Ekstrom Library	15	1	0	0
0010	Gottschalk Hall	3	0	0	0
0011	The Belknap Playhouse	3	0	1	2
0013	McCandless Hall	2	0	0	0
0017	Bingham Humanities Building	11	3	0	2
0018	Life Sciences Building	8	1	0	0
0019	Brandeis School of Law	2	6	0	0
0020	Schneider Hall	2	1	0	0
0023	Lutz Hall	6	4	0	0
0028	Duthie Center	4	0	1	0
0029	Dougherty Hall	2	1	0	0
0030	James B. Speed Building	3	2	0	0
0031	Sackett Hall	3	1	0	0
0032	William S. Speed Building	2	1	0	0
0033	Ernst Hall	5	1	0	0
0034	Natural Sciences Building	7	1	0	0
0036	Chemistry Building	8	0	1	0
0043	Urban & Public Affairs	2	0	0	0
0071	Studio Arts/HSC Advising Center	2	2	0	0
0083	School of Music	10	1	0	0
0084	College of Education & Human Development	9	0	0	0
0087	Davidson Hall	6	2	0	0
0088	Strickler Hall	7	5	0	0
0090	Frazier Hall College of Business	8	7	0	0
0099	Henry Vogt Building	1	2	0	0
0125	Belknap Academic Building	28	14	0	0
0132	New Speed School Building	19	8	0	0
106D	Speed Engineering Garage	2	0	0	0
<b>Administrative</b>					
0001	Grawemeyer Hall	3	0	0	0
0015	Administrative Annex	2	0	0	0
0021	Miller Information Technology Center	3	2	0	0
0079	Development and University Relations Building	0	0	1	0
0089	University Planning Design & Construction	0	0	1	0
0098	Inventory Control/Stockroom/Central Receiving	0	0	1	0
0100	Archaeological Survey/Transportation Building	1	0	0	0
0101	Grounds Services	1	0	0	0
0102	Northeast Services Building	0	0	1	0
0103	Paint Shop	0	0	0	0
0104	Mechanical/Electrical Services	1	0	0	0
0107	Environmental Health & Safety Building	1	0	0	0
080A	Service Complex	3	1	0	0
104A	Mech/Elec Office Trailer	0	0	0	0
104B	Mech/Elec Relief Trailer	0	0	0	0
104C	Mech/Elec Elec Trailer	0	0	0	0
107A	Environmental Protection Service Center	0	0	1	0
<b>Athletics</b>					
0012	Ralph Wright Natatorium	2	1	1	0
0014	Planet Fitness Kueber Center	6	0	4	0
0076	Cardinal Park Ulmer Stadium	0	0	1	0
0108	Cardinal Stadium	6	2	0	0

Table 1.4.1 Belknap Campus Indoor Water Fountain Inventory (continued):

#	Building Name	# Traditional Fountains	# Bottle Fillers	# Other	# Not Functioning
<b>Athletics (continued)</b>					
0109	Howard Schnellenberger Football Complex	5	3	0	0
0111	Bass Rudd Tennis Center	1	1	0	0
0124	Soccer Stadium Facility Building	1	1	0	0
076A	Cardinal Sportplex	2	0	1	0
076C	Cardinal Park Field Hockey Press Box	0	0	0	0
076D	Koetter Softball Batting Cages	0	0	0	0
076E	Cardinal Park Marshall Center	3	0	0	0
108A	Thornton's Academic Center for Excellence	2	2	0	0
109A	Trager Center	3	0	0	2
113A	Shad Mason Hack Shack	0	0	0	0
305A	Lacrosse Press Box	0	0	0	0
<b>Other</b>					
001A	North Information Center	0	0	1	0
001B	West Information Center	0	0	0	0
0022	University Club & Alumni Center	1	0	1	0
0040	Rauch Planetarium	2	0	0	0
0070	Steam and Chilled Water Plant	1	0	0	0
0075	Floyd Street Parking Garage	1	2	0	0
0120	Early Learning Campus	6	0	0	2
025A	Honors House	0	0	0	0
034A	Solvent Storage Bldg	0	0	0	0
<b>Research</b>					
0004	Shumaker Research Building	6	0	0	0
033A	Phoenix House	0	0	0	0
033B	Energy Conservation Test Building	0	0	0	0
106C	LARRI	2	0	0	0
<b>Residential</b>					
0045	Louisville Hall	1	1	0	0
0046	Billy Minardi Hall	4	0	0	0
0047	Johnny Unitas Tower	0	11	0	0
0048	University Tower Apartments	0	1	0	0
0128	Belknap Village North	1	5	0	0
0129	Belknap Village South	1	5	0	0
039N	Chi Omega Sorority	0	0	0	0
039O	Triangle Fraternity	0	0	0	0
039R	Sigma Phi Epsilon Fraternity	0	0	0	0
039S	Beta Theta Pi Fraternity	0	0	0	0
039T	Delta Zeta Sorority	0	0	0	0
039V	Sigma Kappa Sorority	0	0	0	0
039W	Lambda Chi Alpha Fraternity	0	0	0	0
039X	Phi Kappa Tau Fraternity	0	0	0	0
<b>Student Services/Support</b>					
0016	Student Activities Center	26	12	0	0
0027	Stevenson Hall	4	2	0	0
0041	Brodski Hall	2	1	0	0
0081	Houchens Building	1	2	0	0
0085	Baptist Center	0	0	0	0
0086	Interfaith Center	1	0	0	0
0123	Student Recreation Center	9	1	0	0
123A	SRC Storage Building	0	0	0	0
039I	George J. Howe Red Barn	1	0	0	0
048A	The Ville Grill	2	1	0	0
128A	Cultural and Equity Center	0	0	0	0
129A	Center for Engaged Learning	1	1	0	0
<b>Total</b>		<b>308</b>	<b>123</b>	<b>21</b>	<b>8</b>



**Table 1.4.2 Health Sciences Center Water Fountain Inventory:**

Building		# Traditional Fountains	# Bottle Fillers	# Other	# Not Functioning
#	Name				
<b>Academic</b>					
055B	Health Sciences Building	0	4	0	0
055C	School of Dentistry	11	7	0	0
055D	Health Sciences Library and Commons	0	2	0	0
059B	K Building - Nursing	7	3	0	0
059P	School of Public Health and Information Sciences	2	1	0	0
<b>Administrative</b>					
058B	Arthur Keeney House	0	0	0	0
059C	Abell Administration Center	2	2	0	0
059R	Kidney Disease Building	1	0	0	0
059D	Kosair for Kids Pediatric Center	8	0	0	0
<b>Other</b>					
050I	ULH Institutional Services & Parking	0	0	0	0
052B	522 East Gray Street Building	0	0	0	0
054E	Chestnut Street Parking Garage	0	0	0	0
055H	620 Garage	0	0	0	0
057E	University of Louisville Dialysis Center	2	0	0	0
<b>Research</b>					
055A	School of Medicine Tower	12	3	0	5
0051	Medical Dental Research Building	5	2	1	4
0053	Developmental Biology Research Program	2	0	0	0
0056	KY Lions Eye Research Center	11	0	0	0
0057	Research Resources Center	0	0	0	0
055E	Donald E. Baxter Biomedical Research Building	6	1	0	0
055F	Delia B. Baxter Biomedical Research Building	6	0	0	0
055G	Kosair for Kids Clinical and Translational Research	20	2	0	0
057C	Cardiovascular Innovation Institute	15	0	0	0
<b>Student Services/Support</b>					
054G	University Fitness Center HSC	4	0	0	0
<b>Total</b>		<b>114</b>	<b>27</b>	<b>1</b>	<b>9</b>

**Table 1.4.3 ShelbyHurst Campus Water Fountain Inventory:**

Building		# Traditional Fountains	# Bottle Fillers	# Other	# Not Functioning
#	Name				
<b>Administrative</b>					
0060	Rollins S. Burhans Hall	6	3	0	0
0063	Founders Union	2	1	0	0
<b>Research</b>					
0065	Center for Predictive Medicine	2	0	0	0
<b>Total</b>		<b>10</b>	<b>4</b>	<b>0</b>	<b>0</b>

**Table 1.4.4 Belknap Campus Outdoor Water Fountain Inventory:**

Building		# Traditional Fountains	# Bottle Fillers	# Other	# Not Functioning
#	Name				
<b>Athletics</b>					
0076	Cardinal Park Ulmer Stadium	2	0	0	0
0108	Cardinal Stadium	45	0	0	0
0111	Bass Rudd Tennis Center				
0113	Jim Patterson Baseball Stadium	10	0	0	0
0124	Soccer Stadium Facility Building	10	0	0	0
0301	Cardinal Park - Don Fightmaster Playground	0	0	0	0
0302	Cardinal Park Practice Field - Trager Family Field	0	0	0	0
0304	McDonald Soccer Field	0	0	0	0
0305	LaCrosse Stadium	0	0	0	0
0306	Cardinal Stadium Practice Field	0	0	0	0
0309	Patrick Hughes Field (BAND FIELD)	3	0	0	0
0310	Dr. Mark & Cindy Lynn Stadium	8	0	0	0
076B	Cardinal Park Soccer/Track Stadium	5	0	0	0

Table 1.4.4 Water Fountain Inventory (continued):

## Belknap Campus-Outdoors

Building		# Traditional Fountains	# Bottle Fillers	# Other	# Not Functioning
#	Name				
<b>Other</b>					
0075	Floyd Street Parking Garage	0	0	0	0
0131	2020 Pavilion	0	0	0	0
0303	Pavilion - Joe Kitchen Memorial Pavilion	0	0	0	0
075A	Bus Station Floyd St Garage	0	0	0	0
<b>Total</b>		<b>83</b>	<b>0</b>	<b>0</b>	<b>0</b>

## PROCUREMENT

### 1.5

The university maintains contracts with various vendors (Pepsi, Aramark, Sodexo, CenterPlate) on campus with established pricing mechanisms and product selections, as described below. Together with UofL's Stockroom, we've been able to document a total distribution of nearly **1 million bottled waters on campus each year**. In 2023-24, we estimate 126,944 gallons of bottled water was distributed on campus, leaving the university to manage 955,817 waste bottles.

## EXISTING CONTRACTS & VENDORS

### 1.5.1

#### Aramark

Most of Aramark's dining locations that sell bottled water would be greatly impacted by the switch. This would include Starbucks, all PODs, and Chick-fil-A. Catering uses bottled water for boxed lunches, stand-alone orders, and for campus events like Orientation and Welcome Week. Pepsi has researched and has been unable to find a suitable alternative such as canned or boxed water. Aramark has indicated there would be a tremendous cost involved with transitioning to water dispensers, and they would be left with no option to provide water for boxed lunches, which are a grab-and-go items that typically include boxed lunches, water bottles, and canned sodas. Switching to water dispensers that use compostable cups upon request could be used as a water bottle alternative and will come with additional expense to the customer. A big concern with this is that Catering has many events each day across campus and would require a large investment in equipment that they currently do not have to make that switch.

It is important to acknowledge that Aramark is currently trying to reduce (not eliminate) the amount of bottled water sold on campus. Taking small steps in the right direction can have great effects on our planet globally. Changing from bottled water to removing it from campus does not come without drawbacks. In the previous academic year, our dining locations sold the following in terms of bottled water:

- PODs - 158 cases of 24 = 3,792 (\$9,442)
- Catering - used approximately 13,000 (\$25,870)
- Starbucks - 1,620 (\$4,779)
- Subway - 405 (\$1,024.65)
- Chick-Fil-A SAC Location - 34,000 (\$81,260)

This equates to approximately \$122,375 in revenue that will be lost to Aramark and to the university in commissions (approximately \$10,000). This loss of revenue will make it difficult to meet the needs of our guests without charging more. While we understand the social and environmental impacts of bottled water are significant and that change must be made, it is important to also be transparent about the economic impact that this change will make. With the amount of bottled water currently sold at UofL, as well as the acceptability factor for guests who prefer bottled water, we will need to be mindful of the manner and method used to phase out bottled water as an option.

### **Vending and Concessions**

Bottled water is currently offered throughout campus vending and athletics concessions as part of our current Pouring Rights contract with Pepsi. This contract will be up for renewal and put out to bid in 2026, which makes the timing of this proposal perfect, if we can begin implementation in 2025.

Adam Langmeyer of Sodexo Live estimates that during one year of game days at UofL athletics facilities, “we brought in over \$400,000 in revenue from bottled water at points of sale within Athletic facilities and an additional \$35,000 from bottled water sales within suites and catering [roughly 90,000 bottles total]. These sales generate over \$100,000 in commission payments from Sodexo Live to UofL Athletics.”

The following volumes of Aquafina bottled water were distributed at UofL through vending in the last three fiscal years (July-June). These volumes are in cases, the large majority of which were of 16.9oz bottles:

Year	# Cases Donated	# Cases Sold	Total # Cases
2023-24	762	21,083	21,845
2022-23	916	17,921	18,837
2021-22	615	21,011	21,626

### **Retail Outlets**

Aramark manages most campus retail outlets apart from the Campus Store, where a small quantity of bottled water is currently available for purchase.



## EXISTING CAMPUS OPERATIONS

## 1.5.2

### Stockroom

The stockroom distributes bottled water across UofL campuses. The rebate received from sales of bottled water is deposited into the stockroom's account and used to pay salaries of stockroom employees. **Table 1.5.1** identifies the number of cases sold and the rebates obtained from Fiscal Years 2022-2024. Without the rebate from bottled water sales, the university would have to commit to approximately \$42,000 per year to support stockroom employees' salaries. In addition, senior administration receives 12% from all sales of the stockroom. Eliminating bottled water sales will impact the amount of money the administration receives from stockroom sales.

**Table 1.5.1 Bottled Water Sales from UofL Stockroom:**

Fiscal Year	Cases Sold	Rebate
2022	14,394	\$47,968.00
2023	13,499	\$40,038.40
2024	13,015	\$43,468.80

### Athletics

Athletics is willing to work over time to adjust practices to become less reliant on bottled water.

#### **Things to Consider:**

- Fan Safety
- Daily Team Needs
- Expected Price Increase of 3.5x per unit if switching to aluminum packaged water
  - USC went from \$7.74/case to \$28.20/case in that instance
- Lost Revenue in Concessions / Catering (~\$135k/yr)
- Impact to Pouring Rights
- Current Recycling Levels

#### **How Would We Implement:**

- Athletics can switch to refillable containers internally easily, but addressing the needs of fans is more of a challenge.
- Install water dispensers / spigots for fans to refill at stadiums.
  - Would need plumbing in and around stadium.
  - May require elimination of some concession areas to allocate space.
- Would have to allow refillable containers into events.
  - Safety concern as some types of containers create throwing hazards at games.
- Could switch to aluminum cans of water at concessions / catering much more easily, but this would not achieve the goal of eliminating packaged water.
- Would need to install water filling stations in addition to existing water fountains.
  - Fillers need to be freezeproof at all outdoor fan areas, which is costly.

## INFRASTRUCTURE COSTS

### 1.5.3

Water Bottle Filling Stations: Providing easy access to water bottle filling stations university-wide is key to reducing the use of bottled water. To upgrade existing water fountains with bottle filling stations, an assessment would need to be done on each fountain. Older units or built-in units in the wall may require extensive work including new plumbing, electrical and structural components of the building. On average, the cost to replace a MODERN type of water fountain with a bottle filler unit would be roughly \$7,000 each (\$3,000-\$3,500 for the unit and up to \$3,200 for installation). Costs may be higher in certain circumstance, for example, an ADA water bottle filling station was installed in June 2024 at Duthie Center at a cost of \$8,658 (\$5,158 for the unit and \$3,500 for time and materials). In other cases, for instance, if the fountain is under 5 years old, a filler unit may be able to be added to the existing fountain for about \$1,000.



## UNINTENDED CONSEQUENCES

### 1.6

Eliminating bottled water and encouraging people to drink more tap water is not without risks or drawbacks. Despite the reduced costs to individuals and departments of purchasing bottled water, there will be significant upfront infrastructure costs and lost revenue involved in a phase out. As indicated above, university staff will need to add water bottle filling stations throughout our campuses, and they must maintain these stations. This is especially true in the dormitories as undergraduate students are more likely to consume bottled water than graduate students, staff, and faculty (Choate, Davis, & Verrecchia, 2018). Contracts with vendors will need to be renegotiated. Widespread distribution of reusable water bottles, pitchers, and cups will be necessary. These changes require financial investment but, eventually, the reduced environmental and social costs and the increased alignment of behaviors to sustainable goals will be worth it.

Beyond costs, though, there are other risks to consider. Drinking water is an essential part of healthy living. Chilled bottled water is more convenient and perceived by some to be safer and better tasting than tap water. Removing this healthier convenient option may result in some people selecting less healthy sugar-sweetened beverages instead, or they may simply reduce their hydration. When the University of Vermont (Berman & Johnson, 2015) eliminated bottled water from its campus venues in 2013, sales of sugar-sweetened beverages increased. Researchers at UV concluded that their goal

of reducing plastic waste was not achieved. Other researchers (e.g., Mikhailovich & Fitzgerald, 2014) found people avoided drinking tap water for fear of contaminants (Debbeler et al., 2018); and some study respondents felt removing bottled water limited their right to choose. Lastly, removing bottled water may disproportionately impact some groups more than others, as women, Hispanics, and Black people tend to drink more bottled water (O'Donnell & Rice, 2012).

## RECOMMENDATIONS

## 1.7

### Phased Implementation

We recommend a phased approach to gradually ween the campus community off bottled water usage over the course of three years. **Given that UofL's current Pouring Rights contract with Pepsi will expire in 2026, it is pivotal that we not miss this opportunity for renegotiation and begin implementation of this plan in 2025.**

#### Year 1 - 2025-2026 – Recommended budget: At least \$500,000

- Release draft policy on bottled water phase out from the President and Provost's Offices and seek community input through listening sessions and consultation with shared governance bodies. Share stats about the volume of bottles UofL throws out each year, the amount of money individuals and departments spend unnecessarily on bottled water, and the associated carbon emissions from shipping all that bottled water to campus.
- Survey the campus community about current bottled water usage, perceptions of Louisville Tap water, and willingness and barriers to changing consumption patterns from bottled to tap water.
- Invest in installing tap water fillers across the university, prioritizing those facilities (especially residential) which currently have no fillers and high-use buildings with insufficient fillers.
  - Minimize plumbing costs and maximize convenience by locating fillers near restrooms and kitchens.
  - Minimize future maintenance costs by installing fillers without optional filters (given that all on campus testing shows no additional filtration is necessary). Remove or disable filter status indicators on existing units as red and yellow warning lights unnecessarily raise concerns among the public.
- Add bottle filler installation to UPDC's standard design guidelines for all new building construction and renovation.
- Add water fountain/filler sanitizing to regular custodial duties in all facilities.
- Build on existing partnership with the Louisville Water Company to expand signage at fillers and fountains to educate about the safety and quality of our local tap water and encourage its use as a cost-saving way to help UofL achieve its zero waste goals.
- Secure free Louisville Pure Tap branded refillable water jugs, carafes, and dispensers to be made available to university departments for events and meetings.



- Develop language for the 2026 Pouring Rights RFP that makes clear the university's intention to phase out bottled water and our desire to seek a corporate partner willing to help fund some aspects of this change, such as sponsored refillable water bottles distributed to all new students and employees and available for discounted purchase at campus retail outlets.
- Add a variety of refillable water jugs, carafes, and dispensers to the Stockroom inventory.



### **Year 2 - 2026-2027 – Recommended budget: At least \$250,000**

- Release final policy on bottled water phase out from the President and Provost's Offices.
- Continue installing additional fillers where needed and maintaining and sanitizing those we have.
- Continue expanding educational signage at tap water fillers and fountains.
- Begin distributing refillable water bottles with educational and motivational messaging to all new students and employees and expand availability of discounted refillable bottles at all campus retail outlets.
- Launch a university-wide messaging and educational campaign sharing information about the safety and quality of Louisville Tap and extolling the virtues of ditching the disposable lifestyle.
- Begin removing bottled water from certain dining and retail locations, concessions, vending machines, and catered events where refilling is a convenient alternative. Track total beverage sales to observe the impact.
- Remove bottled water from the Stockroom inventory (compensating them for lost revenue) and ban the purchase of bottled water with university funds (e.g. ProCard restrictions and Amazon restricted items), establishing a process for applying for a policy exemption in certain situations where no practical alternative exists.

### **Year 3 - 2027-2028 – Recommended budget: At least \$150,000**

- Continue installing additional fillers where needed and maintaining and sanitizing those we have.
- Continue expanding educational signage at tap water fillers and fountains.
- Continue distributing refillable water bottles with educational and motivational messaging to all new students and employees and ensure universal availability of discounted refillable bottles at all campus retail outlets.

- Remove bottled water from all university dining and retail locations, concessions, vending machines, and catered events.

### Next Steps

If the implementation of this plan is successful, the UofL Sustainability Council recommends that we build on the momentum to shift campus culture away from **all single-use disposable products**, especially those made of plastic. Future steps:

- As outlined in UofL's [2021 Strategic Vision for Institutional Zero Waste](#), which is now integrated into the 2022 [UofL Sustainability Plan: Pathway to Platinum](#), we recommend that President Schatzel sign PLAN's [Break Free From Plastics Campus Pledge](#) - A presidential commitment to many of the long-term goals outlined in the Strategic Vision.
- Explore pursuing the National Wildlife Foundation's [Plastics Reduction Partner certification program](#), through which UofL can certify its campus and earn recognition for reducing the purchase and use of single-use plastics on campus. The program offers a comprehensive framework organized in four action areas: building awareness, supporting behavior change, assessing and implementing operational change, and demonstrating institutional leadership. The certification has three levels available: Bronze, Silver and Green; and is eligible for credit in AASHE's Sustainability Tracking, Assessment & Rating System (STARS).
- Invest in expanding UofL Dining's reusable to-go container program from The Ville Grill to all campus dining locations so that people can enjoy a meal on campus without producing a pile of trash for the university to manage.

## OUTREACH AND MARKETING

### 1.7.1

UofL Today: Brief announcements about key dates/milestones to faculty and staff. These are not long-form articles. So, it is best that announcements include a website and/or point of contact where more information can be found. ULT announcements can be submitted through an online form or work directly with OCM committee member on announcement submissions.

Student News: OCM can submit information to the weekly student newsletter if information provided by 12 p.m. the Thursday before the Monday issue.

Digital signage: OCM can put together signage to promote initiatives – whether that be upcoming dates or reminders about “putting the lid on the plastic.”

UofL News: Prepare article for UofL News (possibly UofL Magazine as well) emphasizing partnership with Louisville Water Company.

Aramark: To promote the use of moving away from serving bottled water single, dining incentives would need to include giving away reusable water bottles to students at orientation as well as during events provided dining can get water bottles donated. Outreach and education are going to be critical during this process. There will need to be social media posts, communication included in orientation materials as well as increased signage on campus informing the students about the decrease in water bottles and reminding them to bring their reusables to campus. Education on the appropriate types of water bottles will be critical to promote food safety.



Reusable bottles that are smaller and have a large detachable top are preferable because the drinking surface won't touch the soda machine nozzles. See the adjacent image from Bowdoin University for an example of these water bottle expectations. This education will be extremely important for health and safety reasons. Research of how other universities navigated this process shows that abundant refill stations were a main factor when reducing bottled water usage on large campuses. Posting encouraging signage at each filling station would be impactful and could encourage support and long-term behavior change.



## EDUCATION

### 1.7.2

Preliminary insights about UofL students' bottled water consumption, and perceptions about Louisville Tap water and overall sustainability initiatives were gathered as a [Campus As A Living Lab](#) project during the Fall 2024 semester in conjunction with the MKT 460 Integrative Marketing Strategies class. The sample consisted of 231 undergraduate students enrolled in either MKT 301 or MKT 441. Overall, the responses from students were positive with respect to various attributes related to Louisville Pure Tap Water, including tangible attributes (i.e., taste, quality) as well as intangible brand attributes (i.e., trustworthiness, reliability), but also revealed room to further positively impact perceptions. Further, students indicated significant support for reducing single-use bottles on campus (less than 17% were not in favor of the initiative), as well as for supporting sustainability initiatives overall (less than 10% indicated that sustainability initiatives were unimportant/somewhat unimportant), but there remain significant opportunities to increase support through educational and awareness strategies.

We recommend working closely with the Louisville Water Company to develop an educational campaign about the safety and quality of Louisville Tap and the environmental and social costs of bottled water. Targeted curricula and messaging should be developed for each audience at the university: students, faculty, staff, event planners, and visitors/guests. For example, students were asked if they would be willing to attend a workshop/seminar/event to learn about negative impact of water bottles – 59% not receptive to the idea which suggests that identifying other methods of educating students/creating awareness that seamlessly integrates into their campus experience would have more impact. Utilizing high attendance events, such as Welcome Week, as well as email marketing and social media marketing offer the greatest potential for reach among students given that 64% of the students surveyed said they find out about campus news through their email while 22% said they find out through social media.

## PARTNERSHIPS

### 1.7.3

Letters of Support: Letters of support for this bottled water phase out proposal are included in Appendix A from UofL Deans, Chairs, and community partners (Louisville Water Company and Beyond Plastics Louisville).

Post-Landfill Action Network (PLAN): UofL's membership of PLAN offers benefits for the whole UofL community to tap into the power of the student led, zero-waste movement. All UofL students, faculty, and staff are encouraged to take advantage of:

- One-on-one advising calls with PLAN staff to help create a zero-waste strategy for your event, club, department, etc.;
- Access to a wide variety of zero-waste manuals and digital resources from the Zero Waste Events Guide to Campus Composting;
- A variety of online workshops and trainings to learn more about going zero-waste;
- The opportunity to achieve PLAN Leadership Certification by attending the full training series;
- Discounts on sustainable products and services, such as 40% off Klean Kanteen reusable bottles.



Access is available by registering at [postlandfill.org](http://postlandfill.org) with any @louisville.edu address to access the Member Hub and tap into all these great benefits.

Fill It Forward: We reached out to Fill It Forward, and they put together [this proposal](#) for us. Through the platform, we could track usage of refillable bottles across the campus community. They also offer contests and prizes to motivate users, if you sign up for the Enhanced Plan. Scannable stickers are also available at a significantly lower cost than Fill It Forward's own bottles to track the use of any bottle and other reusable items like canvas shopping bags. There's a free plan, a \$1,500 (plus \$1,000/yr) Enhanced Plan and \$2,000 Premium Plan (plus \$1,500/yr).



FILL IT FORWARD APP



## RECRUITMENT & RETENTION

### 1.7.4

An investment in phasing out bottled water on campus is not just a strategy for reducing UofL's negative environmental and social impacts and better aligning our practices with our sustainability values and goals. It also represents an opportunity for us to invest in recruitment and retention.

UofL has long been a leader in campus sustainability. Since we first started reporting sustainability data in 2011, UofL has always maintained the [highest AASHE STARS score in Kentucky](#) and among the top 100 in the world. We have been recognized by PLAN as one of the [Top 10 Zero Waste Campuses](#), and have long [scored highly in The Princeton Review's Guide to Green Colleges](#).

But the vast majority of our sustainability initiatives remain invisible to the public and are not widely perceived to be a part of campus culture by most students, faculty, and staff. Despite our great progress over the years, there remain highly visible aspects of campus life that undermine our stated commitment to sustainability. The widespread use of bottled water on campus is one of the most visible expressions of this cognitive dissonance.

**Recruiting and retaining the next generation of Cardinals will require us to take bold, new, visible steps to address the greatest concerns of young people.** According to the [Princeton Review's 2024 College Hopes & Worries Survey](#) of high school students and parents, 59% of respondents say that information about a college's commitment to the environment contributes to their decision to apply to or attend the school. 20% said it contributes "Strongly" or "Very much." More students (61%) than parents (52%) chose these answers.

**We must no longer welcome people to campus with messages about our commitment to creating a better future, while handing them a bottled water. Let us, instead, welcome them with sincerity, a refillable bottle, and information about one of the greatest things about living in Louisville: our award-winning, safe, and delicious tap water.**

# **BOTTLED WATER PHASE OUT PLAN**

**University of Louisville**

**Letters of Support.....Appendix A**

- A.1 Letter of Support: Louisville Water Company .....Page A-1
- A.2 Letter of Support: Louisville Water Company .....Page A-2
- A.3 Letter of Support: UofL Biology Department.....Page A-3
- A.4 Letter of Support: UofL Biology Department.....Page A-4

## **APPENDIX A**

August 5, 2024

To: University of Louisville President Kim Schatzel

From: Kelley Dearing Smith  
Vice President Communications and Marketing

Re: Letter of Support

President Schatzel,

Louisville Water is pleased to offer its support of UofL's work to phase out single-use plastic water bottles on its campuses. When I heard of your vision and the establishment of a committee to explore the idea, I immediately offered Louisville Water's support.

As the drinking water provider for nearly one million people in the Louisville region, we pride ourselves on outstanding water quality and reliable service. In addition to the quality, there's an incredible sense of pride with our drinking water. Louisville Water is the only water utility to trademark its tap water. Louisville Pure Tap® is an anchor for public health and economic vibrancy and we celebrate the quality with a robust education and marketing effort.

For more than 10 years, I have worked with many at the University to build the water brand and highlight the value of water. Louisville Water has partnered to bring bottle filling stations to campus with branded messaging; each year we attend campus events with education and serve Louisville Pure Tap®; and, we frequently provide guest lectures for topics including sustainability, water policy, marketing and global issues. Recently, I have met with the committee that is exploring the feasibility of phasing out single-use plastic water bottles. The diversity of voices is impressive and it's clear there is a genuine interest in achieving your vision.

Louisville Water supports this effort. There will always be a place for commercially produced water, perhaps an emergency or a health concern. But for most people, tap water is a reliable, environmentally friendly and economical choice. As UofL explores this option, Louisville Water can support with education, water quality expertise and potential funding.

I look forward to learning more about this effort and offering the support of Louisville Water.

Regards,



Kelley Dearing Smith  
Vice President, Communications and Marketing



November 14, 2024

Eli Mudd  
UofL Sustainability Council

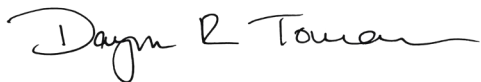
Dear Eli,

I am writing in support of the UofL Sustainability Council's proposal for phasing out usage of bottled water across campus. I sought feedback from senior staff in the College of Arts & Sciences dean's office, and all were in favor of this commendable initiative. We appreciate your careful consideration of the context and challenges involved in making impactful change for our community. We support your objective as stated:

*Our vision is to create a campus culture and environment where the default behavior is no longer consuming bottled water, but refilling containers with award-winning Louisville Tap. We seek a university where bottled water is no longer widely available, but instead everyone has easy access to local tap water.*

Thank you very much for your work on this project, and I look forward to seeing it implemented for the benefit of our academic community.

Sincerely,



Dayna R. Touron, Ph.D.  
Dean



Linda Fuselier  
Professor and Chair  
Department of Biology

Oct 15, 2024

Dear Dr. Schatzel:

We are representing the Biology Department in this declaration of support for the discontinuation of single-use bottled water on campus. As a sustainability-minded campus, it makes sense to promote the use of personal water bottles over single-use plastic for many reasons. First, the carbon produced in the process of making plastic is substantial and any reduction on demand for plastic water bottles is a move to reduce overall carbon emissions. Also, there are some health concerns associated with drinking from plastic water bottles, including exposure to microplastics and “forever chemicals”. Exposure and consumption of microplastics occurs after plastic bottles are returned to the environment where they never completely break down. Microplastics in a human body are associated with chronic inflammation and metabolic alterations among other detrimental changes. A university campaign to eliminate single-use plastic water bottles also provides an opportunity to educate our campus community about the environmental and health risks associated with these bottles and showcase an example of creative solutions to larger ecological threats. More students than ever come to campus with “eco-anxiety”, mental anxiety associated with negative news about the global and local impacts of climate instability. Eliminating bottled water is a step toward a better future that includes promoting self-care, care for one another in our own community and in communities beyond UofL.

Thank you for your support of our campus community.

Sincerely,

Dr. Linda Fuselier

Professor, Chair of Biology

Ally Black

Undergraduate Biology Major



December 3, 2024

RE: Bottled Water Phase Out Plan

Dear President Schatzel:

I am writing this letter as a representative of Beyond Plastics Louisville to express our support for the proposed Bottled Water Phase Out Plan developed by the UofL Sustainability Council.

Beyond Plastics Louisville is part of a nation-wide, grassroots movement to raise awareness about plastic pollution and promote alternatives to single-use plastics. Since its founding in 2019 by Judith Enck at Bennington College in Bennington, VT, the national Beyond Plastics network has provided policy and advocacy expertise supporting local action to stem the tide of plastic pollution.

Beyond Plastics Louisville supports the plan to phase out bottled water on the University Campuses because it aligns with our mission to stop plastic pollution, especially from single-use, disposable packaging. According to data from the [Container Recycling Institute](#) and the [EPA](#), plastic bottles for water and other beverages generate a significant portion of the plastic waste in landfills and the environment. While technically recyclable, only a minority (<30%) of PET plastic bottles find their way into the recycling stream, and those that do are often downcycled into materials that cannot be recycled again.

As the plan points out, there are better alternatives to bottled water. [The high quality of Louisville tap water is monitored and publicly reported](#). After the initial costs of installing additional water filling stations, the costs of tap water are also lower, especially when factoring in the cost of waste disposal for single use bottles.

We applaud the thorough research by the Sustainability Council in preparing their plan. While recognizing the potential costs, they highlight the multiple benefits of phasing out bottled water on campus. The cultural shift away from single-use “packaged water” that they call for will be a multi-stage process. Beyond Plastics Louisville urges the University to commit now to beginning that process.

If you have questions about this letter of support, you can contact me at [beyondplasticslouky@gmail.com](mailto:beyondplasticslouky@gmail.com)

Sincerely,

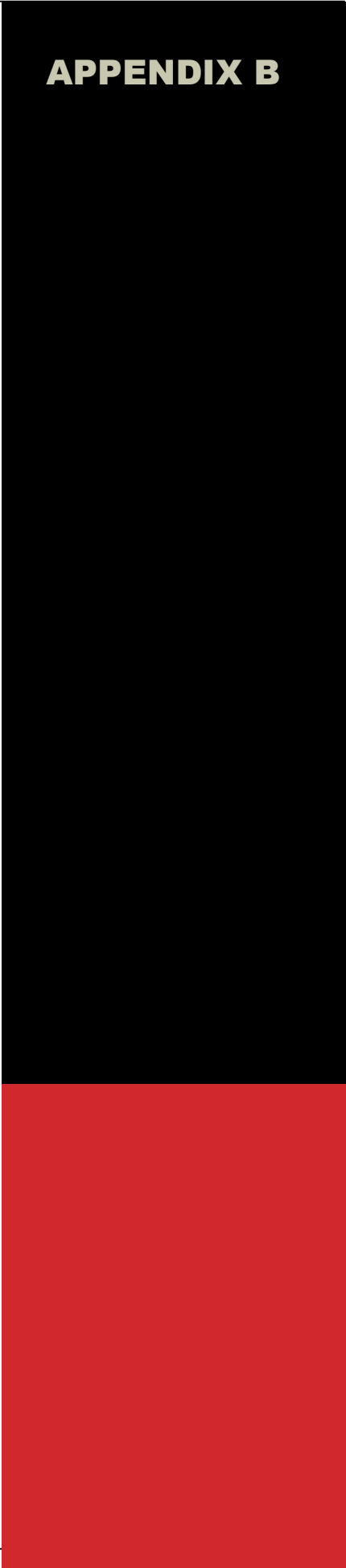
Pam Raidt  
Beyond Plastics Louisville



# **BOTTLED WATER PHASE OUT PLAN**

**University of Louisville**

**The References .....Appendix B**  
B.1 The References .....Page B-1



## **APPENDIX B**

## THE REFERENCES

## B.1

The following references were used in preparation of this report:

- Berman, E., & Johnson, R. (2015). The Unintended Consequences of Changes in Beverage Options and the Removal of Bottled Water on a University Campus. *American journal of public health*, 105 7, 1404-8. <https://doi.org/10.2105/AJPH.2015.302593>.
- Choate, B., Davis, B., & Verrecchia, J. (2018). Campus bottled water bans, not always the solution. *International Journal of Sustainability in Higher Education*. <https://doi.org/10.1108/IJSHE-06-2017-0089>.
- Debbeler, L., Gamp, M., Blumenschein, M., Keim, D., & Renner, B. (2018). Polarized but illusory beliefs about tap and bottled water: A product- and consumer-oriented survey and blind tasting experiment. *The Science of the total environment*, 643, 1400-1410. <https://doi.org/10.1016/j.scitotenv.2018.06.190>.
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