

#### **Clean Memphis** Building a More Sustainable Memphis for All

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## **About Clean Memphis**



### Our Mission

Educating youth, engaging leadership, and empowering communities to sustain a cleaner Memphis.



### **Our Vision**

Engaged Communities. Sustainable City. A Better Memphis.



### **Our History**

Clean Memphis was founded in 2008 to foster a cleaner and greener Memphis. We work to inspire Memphians to be environmental stewards grounded in civic responsibility. In 2020, Clean Memphis developed a strategic plan, using research from other peer cities, to build the beginning stages of a zero waste, circular economy in Memphis and Shelby County.

We engage leadership with data to drive policy change that supports sustainability in Memphis, empower community leaders with resources and tools to beautify their neighborhoods, and implement comprehensive environmental education programs in schools and businesses.

Our goal is to build a more sustainable Memphis for all.



#### Clean Memphis 2023 Annual Report: A Word From Our Executive Director

# A word from our executive director:

In 2023, the synergy between our dedicated team, board members, and community partners in Memphis has been nothing short of inspiring. Our collective mission to cultivate a cleaner, healthier city unites us, propelling us forward with purpose. Below, I've outlined key highlights showcasing how our initiatives are reshaping Memphis into a resilient, waste-free city through youth education, leadership involvement, and community empowerment.

Our environmental education initiative is shaping the next generation of environmental champions. Throughout 2023, we engaged over 10,000 students through diverse programs, including in-class sessions, enriching field trips, and interactive environmental book clubs. With meticulously crafted activities, our education team brings environmental science to life, igniting curiosity and instilling stewardship in Memphis's youth. Studies show that such education not only enhances academic outcomes but also boosts self-esteem – a vital asset for our future leaders. I invite you to explore our impactful work further in the following pages.

Project Green Fork achieved remarkable strides in 2023 toward establishing a sustainable food ecosystem. Guided by data-driven strategies, we devised a system to rescue surplus prepared food safely, redirecting it to organizations aiding those facing food insecurity. Collaborating with partners spanning event spaces, the hospitality sector, and local eateries, we targeted the estimated 5,000 tons of rescuable food in Memphis and Shelby County annually. Delve into our innovative restaurant challenge and learn about our meticulous tracking of food donations via Careit.

Our community engagement endeavors harnessed data-backed strategies to drive impact. Utilizing education and infrastructure as pillars, we tackled litter reduction head-on. Through a spectrum of dynamic events, we promoted the ethos of zero waste, championed reusability over single-use items, and underscored the importance of communal stewardship. Securing a \$500,000 grant from the Environmental Protection Agency enabled us to install water refill stations across Memphis's parks—an investment proven to curb littering significantly. As we gear up for our Choose to Reuse campaign in Spring 2024, advocating for reusable products, our resolve remains unwavering.

The momentum we've garnered fuels my optimism for the transformative journey ahead. Together, we possess the power to forge a cleaner, greener Memphis—one where sustainability thrives, and our collective impact reverberates for generations to come.

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Janet Boscarino Executive Director

## **Thank You to Our Funders**

Our work is made possible through generous contributions from our donors and funders.

#### Corporate

Auto Zone BlueCross BlueShield of Tennessee Community Trust FedEx Georgia-Pacific Memphis Cellulose Green Bee Real Estate International Paper Memphis Tourism Nike, Inc. Sylvamo

#### Foundation and Nonprofit Organizations

Binghampton Development Corporation Deupree Family Foundation Hyde Foundation Kemmons Wilson Family Foundation Natural Resources Defense Council Tennessee State Parks Conservancy The Assisi Foundation of Memphis, Inc The Turley Foundation Wolf River Conservancy

#### Government

City of Memphis, City Council City of Memphis, Storm Water Department Environmental Protection Agency Shelby County Commission Tennessee Department of Transportation Tennessee Valley Authority

#### Individual

Alvis Otero Amazon Smile **Caroline Weems Charles Brashear Chervl Stemmer Community Foundation of Greater Memphis** Donald Gilbert Frica Strand **Glenn Fiscus** Grandview Garden Club Janet Boscarino Johanna Thompson Jonathan Hottinger Kevin McEniry Kim Bearden **Kimberly McCollum** Kroger Linda Standifer Lowell Smoger Matthew Paul Meta Nicholas Lingerfelt PayPal Giving Fund Regena Bearden Rvan Hall Whitehaven Elementary Wight F. Boggs



# **Our Programs**

#### BUILDING THE NEXT GENERATION OF ENVIRONMENTAL STEWARDS

We believe that education is the foundation for building life-long stewardship and civic engagement. Our education team provides high quality, hands-on experiences that bring environmental concepts to life, with a particular focus on how our local community is impacted.



#### Our approach:

Our grade-specific curriculum allows us to connect with the entire student body. Programming is provided biweekly with the same student groups to help build on concepts over time.

#### Environmental topics explored:

- Energy conservation and alternative energy
- Water conservation, water quality, stormwater, and the Memphis Sand Aquifer
- Pollution prevention and litter abatement
- Zero waste and circular economy
- Food waste, recycling, and composting
- Human impacts on the environment
- Healthy ecosystems

Empowering minds with nature's lessons: Backed by Stanford research, our curriculum harnesses the power of environmental education to foster higher level thinking skills.



## **Education Programming**

#### FIELD TRIPS WITH A PURPOSE

We believe that students thrive when immersed in nature, where curiosity is ignited, learning flourishes, and a deep appreciation and understanding of the world takes root. Through immersive field trip experiences in 2023, students enjoyed being in nature, learned about animals native to our region, and identified native and invasive plant species.

On a trip to Overton Park's Old Growth Forest, students worked hard to eliminate invasive species of English ivy and learned how this plant, though beautiful, is deadly to growing oak trees.







#### **BOOK CLUBS**

Our second and third grade environmental book clubs merge literacy with environmental science, providing an interactive way to engage early learners and promote environmental stewardship. Throughout the academic year, students read seven culturally relevant books, focused on environmental themes. At year's end, these books become cherished additions to their personal libraries.

Since the inception of our Book Clubs, we've distributed **more than 2,000 books**, reinforcing the notion that having books at home significantly influences academic and economic prosperity, as highlighted by linguist and education researcher Stephen Krashen.









## **Education Programming**



We engage students as data scientists through our Food Waste curriculum. Food waste is a regular unit of study for our fourth graders. This year, we extended that curriculum by engaging students in hands-on data collection as they conducted food waste audits in their school cafeterias to examine what is being wasted, what is being eaten, and why these patterns occur. Students conducted quantitative and qualitative analyses on the data they collected. This data was shared with school nutrition services, informing their decision-making processes, and facilitating the adoption of policies aimed at reducing food waste.



#### LEARNING GARDEN

As third graders spend time in nature, they learn about the role of pollinators in producing fruits and vegetables. In addition to their in-class lessons about pollinators, they get their hands dirty by planting their own flowers in the Learning Garden. Throughout the growing season, students will tend to the gardens and look for pollinators as they go about feeding themselves and exploring nature.

## **Education Programming**

#### PROFESSIONAL DEVELOPMENT

Clean Memphis's Director of Education was invited by the University of Memphis to introduce environmental science education to **45 pre-service teachers**.

"Environmental science can be integrated into any subject. You do not have to carve out time just for environmental science instruction, but you can incorporate it into nearly any lesson you teach."

"As an adult, I found myself thoroughly engaged, and I can only imagine how much my students would enjoy these lessons. It reaffirmed my belief in the power of hands-on, experiential learning."

Following this successful engagement, the education team arranged two one-day bootcamp experiences for **18 educators** from various educational backgrounds such as schools, museums, and city parks. These professional development experiences have the potential to annually impact tens of thousands of students.







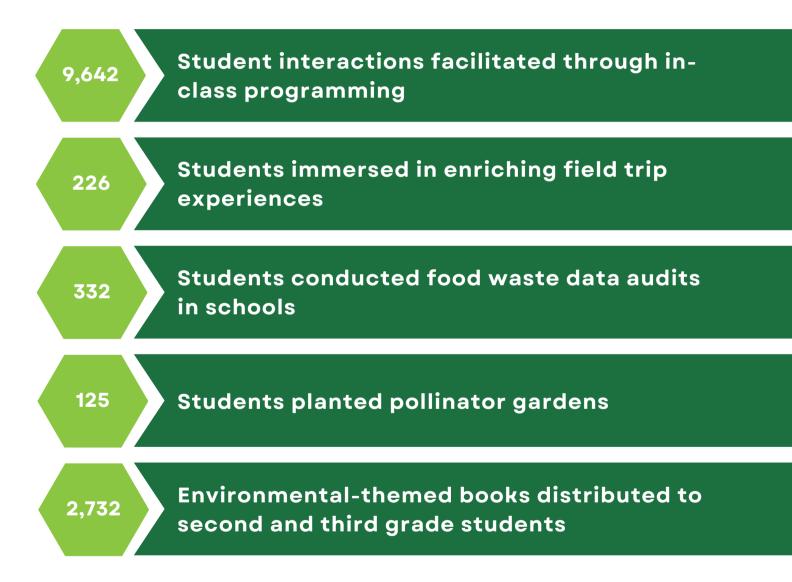
**Clean Memphis 2023 Annual Report: Education Programming** 



## **Our Programs**

#### BUILDING THE NEXT GENERATION OF ENVIRONMENTAL STEWARDS

#### Impact



## **Project Green Fork**

#### BUILDING A MORE SUSTAINABLE FOOD SYSTEM THROUGH COLLABORATION



Project Green Fork (PGF) develops a sustainable food system for all Memphians by reducing food waste, connecting local partners, and socializing green dining practices. Up to 40% of food in the U.S. goes uneaten, taking environmental, social, and economic tolls. Further, the Natural Resources Defense Council estimates that 5,000 tons of rescueappropriate food is available in Memphis annually, much of it going to local landfills and contributing to climate pollution.



PGF seeks to address these burdens through matching local food providers who have surplus food with organizations who distribute food among people experiencing food insecurity. PGF also currently supports 40 restaurants who seek to be more environmentally sustainable through waste reduction, recycling, composting, using compostable products, and other pillars of its program.

While many local resources exist to promote a more resilient local food system, PGF seeks to connect service partners like Compost Fairy and Get Green Recycleworks with key hospitality players, and local businesses such as FedEx Forum and Renasant Convention Center with area food rescue organizations.

## **Project Green Fork**

#### BUILDING A MORE SUSTAINABLE FOOD SYSTEM THROUGH COLLABORATION

#### Six Steps of PGF Certification

PGF certification signifies a commitment to sustainability and responsible food management practices, empowering businesses to reduce food waste, enhance operational efficiency, and contribute to a more sustainable future. The following guidelines exist to facilitate the PGF certification process:

#### 1. Source Reduction

• Restaurants follow an individualized waste reduction plan, informed by a snapshot waste assessment and collaboration with the establishment.

#### 2. Surplus Food and Waste Diversion

 Restaurants follow an individualized diversion plan, integrating donation, recycling, and composting into their operation as recommended by PGF. This is also informed by the snapshot waste assessment and collaboration with the establishment.

#### 3. Saying "No!" to Styrofoam

 Restaurants prioritize reusable food products and use only compostables and recyclables where possible.

#### 4. Water and Energy Reduction

- Restaurants implement steps such as:
- Regularly checking sinks, faucets, and toilets for leaks
- Training employees to turn of water when not in use
- Purchasing only Energy Star appliances
- Using thermostats set to an energy saving mode during off hours

#### 5. Use of Green, Non-Toxic Cleaners

- Where possible, restaurants should not use cleaners that contain any of the following:
  - Ammonia
  - Chlorine
  - Sodium hydroxide
  - Phthalates
  - Triclosan
  - 2-Butoxyethanl

#### 6. Maintaining Spaces

• Maintain grease traps, hood systems, and restaurant spaces.

## **Project Green Fork**

BUILDING A MORE SUSTAINABLE FOOD SYSTEM THROUGH COLLABORATION



#### **PFG Certified Restaurants:**

A.Schwab Another Roadside Attraction Catering Bar DKDC **Bedrock Eats & Sweets Biscuits and Jams** Café Eclectic Central BBQ - Downtown Central BBQ - Summer Charlie Vergos' Rendezvous Cheffie's City & State City Silo Table + Pantry Comeback Coffee Cordelia's Market Da Guilty Vegan Ecco on Overton Park Feast & Graze Fratelli's Café Fuel Food Truck Good Fortune Co.

Grind City Brewing Huev's Midtown I Love Juice Bar Inspire Community Café Libro at Laurelwood McEwen's Memphis Memphis Made Brewing Co Mempops Muddy's Bakeshop Otherlands Tamboli's The Beauty Shop Restaurant Tonica Trezevant Tsunami Dory Lulu's Café Board to Beers Shroomlicious Meals

#### Impact

- Total 34,695 pounds of food diverted
  - 7,695 pounds donated (through Careit)
  - 27,000 pounds donated (before Careit).
- Environmental impact
  - 14.73 total greenhouse gas emissions avoided
  - 797,874 total water footprint reductions (gallons)
  - 6,379,966 gallons of plastic, glass, and aluminum recycled by restaurants
  - 4,556,817 pounds of cardboard and paper recycled by restaurants
- Social impact
  - Approximately 23,130 meals served

### **Project Green Fork** FOOD WASTE AWARENESS EVENTS



Community events are key to spreading awareness. Events like Love Food Hate Waste, Loving Local, and Reharvest Memphis help us educate others about food waste and share solutions for reducing it.

#### Love Food Hate Waste

Sponsored by Blue Cross Blue Shield of Tennessee Community Trust

Project Green Fork hosted Love Food Hate Waste Memphis on April 15, 2023, at Memphis Made Brewing in the Cooper-Young neighborhood. As a celebration of Food Waste Prevention Week, over 100 attendees at this free community event learned about reducing food waste at home and had the opportunity to meet community partners focused on mitigating food waste in Memphis. Last-mile organizations (LMOs), a community composting service, an urban farmer, representatives from the healthcare industry, and the Tennessee Department of Environment and Conservation were on hand to engage with attendees.

Chef demos, food waste trivia with prizes, and a PGF-certified food truck provided entertainment and tasty bites. Drew Barton of Memphis Made Brewing crafted a specialty beer made from rescued bagels for the event.

#### Impact

 This zero-waste event diverted 90% of the materials from the landfill. This included 19 pounds of food leftover from our culinary demo that was donated to Recover Food, Feed Hope.









## **Project Green Fork** FOOD WASTE AWARENESS EVENTS



#### Loving Local

Sponsored by A&B Construction and TVA

Our annual Loving Local event was held on June 15, 2023 at the Ravine in The Pinch District. This gathering featured some of our most celebrated PGF-certified chefs, a mobile game truck from PGF-certified Board to Beers, and specialty cocktails from Highball. Chefs included Kevin Sullivan of Tsunami, Chef Monique Williams of Biscuits & Jams, Owner Craig Blondis of Central BBQ, Chef Terrence Whitley of Inspire Community Café, and Chefs Sarah Cai and Arturo Leighton from Good Fortune Co. DJ Alpha Whiskey kept the music going while 165 event-goers enjoyed food, drinks, games, and a sommelier-crafted wine pull.



#### Impact

• As always, Loving Local was a zero-waste event, **diverting 95% of materials from the landfill** and **donating surplus food to Room in the Inn**.

# **Project Green Fork**

#### FOOD WASTE AWARENESS EVENTS

#### **Reharvest Memphis**

Sponsored by Republic Services, A&B Construction, and TVA

Reharvest Memphis 2023 took place on November 16, 2023, at Beale Street Landing in Downtown Memphis. Reharvest Memphis brings new life to surplus ingredients, giving talented chefs the opportunity to turn these goods into delicious bites fit for a celebration. Participating chefs were invited to rescue surplus products from the Mid-South Food Bank and Cordelia's Market, creating their dishes from items that may have otherwise been discarded. This year's lineup included Chefs Sarah Cai and Arturo Leighton from Good Fortune Co, Chefs Don Gaines and Stephanie Blanda from Lulu's Café, Chef Daishu McGriff from Shroomlicious Meals, Chef Becky Githinji from Tamboli's, and Chef David Self from Paper Plate Pavilion. Guests enjoyed music from DJ Crystal and drinks from Highball.

#### Impact

 Reharvest was another successful zero waste event for PGF, diverting
91% of materials from the landfill, including over 43 pounds of goods
donated to Room in the Inn following the event.





**Presenting Sponsors** Republic Services, A&B Construction, TVA

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Silver Sponsors I Love Memphis Blog

**Bronze Sponsors** Downtown Memphis Commission, Shelby Electric Company

In Kind Sponsors Athens Distributing Company, Mid-South Food Bank, Cordelia's Market, Wiseacre, Get Green RecycleWorks



# Project Green Fork



#### **Careit Launch**

In August 2023, PGF launched Careit, a food donation and rescue software. Careit is a food donation matching "marketplace" that connects donors with rescue organizations, allowing for a seamless process of safe food donation. Donations are entered into Careit and can be earmarked for a specific rescue organization or made available for any organization in the Careit network. Weights and food types are tracked so that all parties can see their impact at any time.

The pounds of donated foods continues to grow exponentially month-over-month. As the first organization in Tennessee to use Careit, PGF is at the forefront of reshaping the food donation landscape.

#### Impact

Since its launch, over 7,952 pounds of food (about the weight of an elephant) from 206 donations have been logged through Carelt. This diverts 15.5 tons of carbon dioxide from the atmosphere by keeping food out of the landfill.

#### New Donors and Rescue Organizations

In 2023, PGF welcomed some impactful additions to our already active donor and LMO partnerships.

#### Donors

• FedEx Forum, Renesant Convention Center, ALSAC, FedEx Events Center at Shelby Farms Park, Germantown Performing Arts Center, Shine in the Dark Commission, Ecco on Overton Park, Café Eclectic, The Mad Grocer & Deli, and Mempho Presents. Brother Juniper's, Central BBQ, and Overton Park Shell have also joined us as of Q1 2024.

#### LMOs

• Sunshine and Daisy, The Love Hub, and Adult & Teen Challenge

### **Project Green Fork** INITATIVES

#### Safe Food Handlers Class

In partnership with the Shelby County Health Department, PGF hosted two free Safe Food Handlers Classes at Holy Communion Episcopal Church. This class supports the work of our partner organizations, giving them much-needed information on handling food in a safe and responsible manner. Quarterly classes will continue in 2024.

#### 901 Save the Food Challenge

In September 2023, PGF launched its first 901 Save the Food Challenge in the Crosstown, Evergreen, and Vollintine Evergreen neighborhoods of Midtown Memphis. Seven restaurants, a combination of PGF-certified and new recruits, spent the 30-day challenge putting food waste reduction strategies to work.

#### **Recommended strategies include:**

- Adopting new practices for food purchasing, storage, and right-sized cooking quantities to minimize waste.
- Creatively repurposing surplus ingredients.
- Utilizing foods that might otherwise go unused, such as imperfect fruits and vegetables and unusual plant parts.
- Cooking in small batches or cooking to order.
- Making side dishes, breads, chips, and bar snacks available by request.
- Engaging with staff through training on food waste reduction, and recognizing waste reduction practices in action.
- Offering flexible portion sizes on some menu items.
- Donating surplus food.
- Composting organic waste.

The PGF team conducted initial waste assessments for each participating restaurant, evaluating their opportunities for reduction and diversion. The team also offered staff training and engagement opportunities along the way. At the end of the challenge period, participating restaurants were invited to continue their work with PGF as members, working towards the goal of full certification.

Following the initial launch, a second challenge began in October with eight new restaurants in Downtown Memphis.







# Project Green Fork



#### 2023 Participating Restaurants:

#### **Midtown Memphis**

Café Eclectic (PGF-certified) Ecco (PGF-certified) Tonica (PGF-certified) Art Bar Global Café Lucy J's Bakery Mad Grocer & Deli

#### Downtown Memphis

Comeback Coffee (PGF-certified) Good Fortune Co (PGF-certified) Cordelia's Market (PGF-certified) McEwens on Monroe (PGF-certified) Feast and Graze (PGF-certified) The Blue Monkey Dos Hermanos Boycott Coffee

#### Food-Saving Strategies: Ranked by Participant Selection

- Staff training and engagement\* 13 restaurants
- Creatively repurpose surplus ingredients 10 restaurants
- Engage with customers on food waste reduction strategies 6 restaurants
- Food donation 5 restaurants
- Restaurant-led weekly snapshot waste assessments 5 restaurants
- Rethink purchasing and storage of ingredients 2 restaurants

\*We recommend this for everyone as a strategy



# **Community Engagement**

#### COLLABORATING WITH CORPORATE AND COMMUNITY PARTNERS

Fostering a robust community engagement program is paramount. We actively organize and cultivate a network of citizens and business leaders to champion advocacy efforts and support community programs. In 2023, we strengthened partnerships with various organizations and community groups, including the Wolf River Conservancy, Memphis Stormwater, Uptown Community Association, the Downtown Memphis Commission (DMC), Memphis River Parks, Memphis Parks, the Overton Park Conservancy (OPC), and the Overton Park Shell. We also welcomed new allies, including Black Seeds Urban Farms, TONE, and Friends and Nem, further expanding our network and amplifying our impact.

Our corporate partners, including FedEx, BlueCross BlueShield (BCBS), Tioga, EVOLVE Bank, First Horizon, and RKA Construction have demonstrated a strong commitment to environmental stewardship through their financial support and employee volunteers.

#### **EPA Trash Free Waters Initiative**

Each American generates **1,800 pounds of trash** annually, with a sizable portion being single-use plastics. These often end up as litter, contributing to water pollution as it makes its way through drainage systems into rivers and oceans.

The EPA's Trash Free Waters grant provided \$500,000 in funding to Clean Memphis to bring awareness to this issue and build out the necessary infrastructure to encourage the use of refillable water bottles. We collaborated with the City of Memphis Parks Division to install **15 water refill stations** in public parks and **25 water refill stations** at all Compass Community Schools campuses. The water refill stations include informational signage to encourage reuse and reduce the utilization of single-use plastic water bottles.

#### Impact

- 33 water refill stations installed
- 700 people reached through awareness events
- 2,000 reusable water bottles given away
- By eliminating purchases of **thousands of single-use water bottles**, Compass Community Schools saw a significant decrease in campus litter.









# Community Engagement

#### Analyzing Litter Data

Utilizing Litterati, a powerful tool for data collection, both our community groups and corporate partners have contributed significantly to our efforts across multiple areas of the city, spanning Binghampton, Downtown, Orange Mound, and Memphis Parks. This collective data enables us to identify patterns and prioritize areas for intervention effectively.

#### **Compass Community Schools**

At Compass Community Schools, our partnership extends to supporting tenth graders with their service-learning projects. As one of the partners supporting service learning, we aim to provide students with exposure to diverse careers while fulfilling their community service requirements. These projects occur quarterly and are integral to our Compass partnership.



In 2023, our students undertook a significant initiative, collecting pre-data for the EPA Trash Free Waters project at four local parks where water refill stations are installed. In 2024, they will continue this work by gathering post-data.

To facilitate these efforts, we provide training to both teachers and students, including how to use Litterati. Additionally, we designate data collectors who receive incentives for their contributions. Our dedicated staff oversees clean-up projects to ensure student engagement and success. By integrating litter data collection into their curriculum, students are equipped with tangible skills to effect meaningful change within their communities.



#### **Community Cleanup Days**

Community cleanups serve as a cornerstone of our data collection efforts while simultaneously enhancing the aesthetic appeal of our streets and shared spaces. Through collaborative efforts with both corporate partners and community groups, we have achieved remarkable results. In 2023 alone, our collective endeavors led to the removal of over 4,700 pounds (about twice the weight of a Clydesdale horse) of litter from Memphis streets and parks, a testament to the dedication and hard work of all involved.

# Community Engagement

#### Sip & Serve

Central to our cleanup initiatives is the Sip and Serve series, a dynamic program combining environmental stewardship with community engagement. Participants come together for cleanup events that culminate in gatherings at local bars or community spaces, where refreshments are provided by Clean Memphis. Beyond the impact of litter removal, Sip and Serve creates a platform for individuals to form meaningful relationships and strengthen community ties.









#### Tree Day

In 2023, Clean Memphis proudly served as the regional hub for Tennessee Tree Day, a flagship initiative in partnership with the Tennessee Environmental Council. This annual statewide event aims to plant over one million trees in Tennessee by 2025, contributing to vital environmental restoration efforts.

The trees planted, all native to Tennessee, play a pivotal role in mitigating flooding and erosion, improving air quality, and alleviating the adverse effects of the urban heat island phenomenon in Memphis. Our participation underscores our commitment to fostering sustainable ecosystems and enhancing the resilience of our communities.

#### Impact

- **19 cleanup events** organized and supported by Clean Memphis
- 346 citizens volunteering and serving our community
- **100 total students** who completed service-learning projects
- **30 service hours** logged (invested by volunteers and corporate partners)
- 4,500 pounds of litter collected
- 250 trees given away



#### Clean Memphis 2023 Annual Report: Meet the Team

## Meet the Team STAFF



Janet Boscarino Executive Director



Lisa Brown Consultant, Marketing



Michelle Cowan Director of Education



Leann Edwards Director, Project Green Fork



Amber Lipford Lead Educator



Ali Manning Program Consultant, Project Green Fork



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Sam Powers Research & Policy Associate



Steph Rollen Food Rescue Specialist



Kathleen Quinlen Director of Operations



Emma Simmons Environmental Science Educator

## **Meet the Team** BOARD OF DIRECTORS



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