

# PARK OVER PLASTIC TOOLKIT



**HUDSON RIVER PK<sup>®</sup>**

# WELCOME

Thank you for turning to this Toolkit for inspiration and actionable tools that address our plastic pollution problem. This document is designed to support parks, businesses, organizations and other groups that are looking to expand efforts to reduce plastic waste. We invite you to use the resources available in this Toolkit to best serve the needs of your community. As we strive to provide the most useful information and learnings from Park Over Plastic, we would appreciate your feedback through a brief survey [here](#).

## In this toolkit you will find:

- › An overview of Park Over Plastic
- › Communication and outreach strategies
- › Guides to sourcing plastic alternatives
- › Tools to measure impact
- › Park research methods on microplastics

And more!

Learn more about Park Over Plastic by visiting [HUDSONRIVERPARK.ORG](https://HUDSONRIVERPARK.ORG)

Follow us on Facebook, Twitter and Instagram [@HudsonRiverPark](#)



## TABLE OF CONTENTS

**pg. 4 – Introduction**

**pg. 6 – The Problem**

**pg. 8 – Our Approach**

### **Tools & Resources**

pg. 12 – Messaging

pg. 14 – External Partners

pg. 14 – Green Resource Guide

pg. 15 – Outreach

pg. 17 – Evaluation & Metrics

pg. 18 – Research

**pg. 20 – Digital Resources**

**pg. 21 – References**

**pg. 22 – Park Over Plastic  
Timeline**

# INTRODUCTION

Hudson River Park (the “Park”) is a 4-mile public park along Manhattan’s west side waterfront, attracting millions of visitors each year. The Park is designed, constructed and operated by the Hudson River Park Trust (the “Trust”), a public benefit corporation and unique partnership between New York City and New York State. The Park features recreational piers with multiple boathouses, lawns, sports fields, walking and running paths, playgrounds and other amenities that provide visitors with a direct experience of the Hudson River in the heart of Manhattan. Hudson River Park operates under a model of financial self-sufficiency, and includes restaurants, events spaces, tour boats and limited other uses that provide revenue for maintenance and operations.

Uniquely, Hudson River Park also includes 400 acres of Estuarine Sanctuary waters which provide an essential habitat for an abundance of aquatic wildlife, including 85 species of fish such as striped bass, lined seahorses and American eels. A core aspect of the Park’s operations includes educating the public about the Estuary’s ecological importance in addition to research and restoration activities to preserve this resource.

With numerous stakeholders reliant on a safe, clean and accessible waterfront, and in consideration of the Park’s commitment to stewardship of the Estuarine Sanctuary, the Trust has been researching the proliferation of marine debris and plastics in its waters for several years. In 2019, this research culminated in an ambitious step to advance sustainability: the Park Over Plastic (“POP”) initiative.

POP is a sustainability program that utilizes a phased approach to build community and reduce plastic pollution across all Park facilities, programs and tenant spaces. Plastics are a global problem and solving it will require collective action to develop, share and amplify best practices. As innovative solutions for plastic alternatives and circular economies continue to advance, parks, businesses and other institutions can proactively work together to reduce plastic waste



and create meaningful shared messaging to motivate positive, low-plastic behavioral change. To encourage others to join the fight against plastic pollution, Hudson River Park has developed the Park Over Plastic Toolkit which includes replicable instruments and guidelines for free, public use.

The Park Over Plastic Toolkit is intended to provide a practical set of resources, methodologies and lessons learned to interested parties who seek to conduct institutional plastic reduction efforts as well as education and research on environmental plastic contamination. Some of these resources have been in development since 2015 when the Park launched micro- and macro plastic pollution research projects. The resources contained herein are designed to be adapted for a variety of institutional and community settings in order to be useful to the widest range of audiences. Hudson River Park is committed to updating the Toolkit as new information is incorporated into the Park’s research and protocols and to include relevant, local research.

By working together, we can better understand and combat the growing issue of plastic pollution in our waterways.

We hope Hudson River Park’s POP initiative inspires you or your organization to do what you can to reduce our plastic footprint. We invite you to share your questions, success stories or ideas with us at [education@hrpt.ny.gov](mailto:education@hrpt.ny.gov).

# THE PROBLEM

Plastic pollution is a global issue rooted in a culture that has become increasingly dependent on single-use products – plastic items that are typically used once and then discarded. After World War II, the popularity of plastic products grew in the United States in support of the modern household.<sup>1</sup> Although single-use plastics are now a necessity for many industries, plastic disposal is an enormous and growing problem left to be solved.

Plastic was first detected in our oceans in the 1960's. Today, experts estimate that there will be more plastic than fish by weight in the oceans by the year 2050.<sup>2</sup> Plastics have been found all over the world's water bodies including a remote lake in Mongolia, where microplastics, or plastic particles 5 mm and smaller,

were identified.<sup>3</sup> Plastics have also been found and studied in the isolated mountaintops of the French Pyrenees.<sup>4</sup> Plastics of all sizes negatively impact our well-being by introducing toxic chemicals into the environment that harm human and environmental health.

In many urban locations including New York City, a major source of plastic pollution is the combined sewer system. Combined sewer systems are designed to collect rainwater runoff and domestic sewage in the same pipe for treatment at a local wastewater facility. However, during wet weather events, such as rainfall or snowmelt, this system becomes overwhelmed with the excess wastewater, and millions of gallons of untreated wastewater are discharged



into New York City's waterways. This occurrence is called a combined sewer overflow event or CSO. Increasingly, such wastewater includes plastics from our businesses, homes and streets. This is also one of the ways that microplastics enter our waterways. Microplastics are engineered into products such as textiles, cosmetics and hygiene consumables, but they can also result from larger plastic debris breaking down into smaller and smaller pieces over time due to UV light exposure. Since 2015, Hudson River Park's scientists have been dedicated to determining the scope of the plastic pollution in the River by monitoring marine debris along the Park's shorelines and within the Estuarine Sanctuary.

The Park has consistently documented marine debris – most significantly, single-use plastic products including beverage bottles, styrofoam and food packaging – along Park shorelines during monthly macroplastic surveys. The Park's microplastics study, underway since 2016, has consistently found high volumes of microplastic pieces, especially fragments and foam, in the Park's Estuarine Sanctuary.



# MARINE PLASTIC RESEARCH (SINCE 2015)

**30,000**  
**PIECES OF PLASTIC**  
debris counted and categorized

**3,200+ lbs**  
**OF MARINE DEBRIS**  
removed from the Park's shorelines

Between **2016** and **2019**, microplastics concentrations in the Park fluctuated around **200,000 pieces/km<sup>2</sup>**, except for **2018**, which spiked over **800,000 pieces/km<sup>2</sup>**

In 2019, with this growing knowledge of the prevalence of plastic in our local waterways, Hudson River Park launched POP. This program aims to reduce the Park's plastic footprint and to promote sustainable practices by Park staff, visitors, partners and tenants in order to improve the health of the Estuarine Sanctuary. By proactively minimizing plastic pollution in the Park, we hope to reduce contamination in the Hudson River and encourage sustainable solutions for our greater community.

# OUR APPROACH

Hudson River Park initiated POP by starting internally, supporting tenants as Green Partners and engaging the community through messaging and programs. This approach of making changes first within the Park's operations and culture helped the Park better anticipate challenges, resource needs and opportunities when POP expanded to the greater Park community.

## GETTING STARTED

POP began with an intentional focus inward on Park staff and internal practices. Through monthly interdepartmental meetings convened by the Park's President & CEO, and the creation of a more informal employee Eco Club, the Park has invested in developing a culture of sustainability. The Park's River Project team, which includes both scientists and educators, organizes and tracks internal goals and progress made toward reducing the Park's plastic footprint in a holistic way to foster accountability and action.

## SUPPORTING GREEN PARTNERS

Within Hudson River Park, there are dozens of tenant organizations ranging from small food vendors and sports groups to large catering and entertainment facilities capable of serving hundreds of people at a time. POP engages Park tenants through a Green Partnership program and annual sustainability working group that together educate and promote tenants as champions of plastic reduction. The Trust believes that individual tenants can best speak to their own staff, communities and clientele about plastics initiatives, while the Park strives to share plastic reduction strategies, messaging and alternative products from its centralized vantage point.



## ENGAGING COMMUNITY

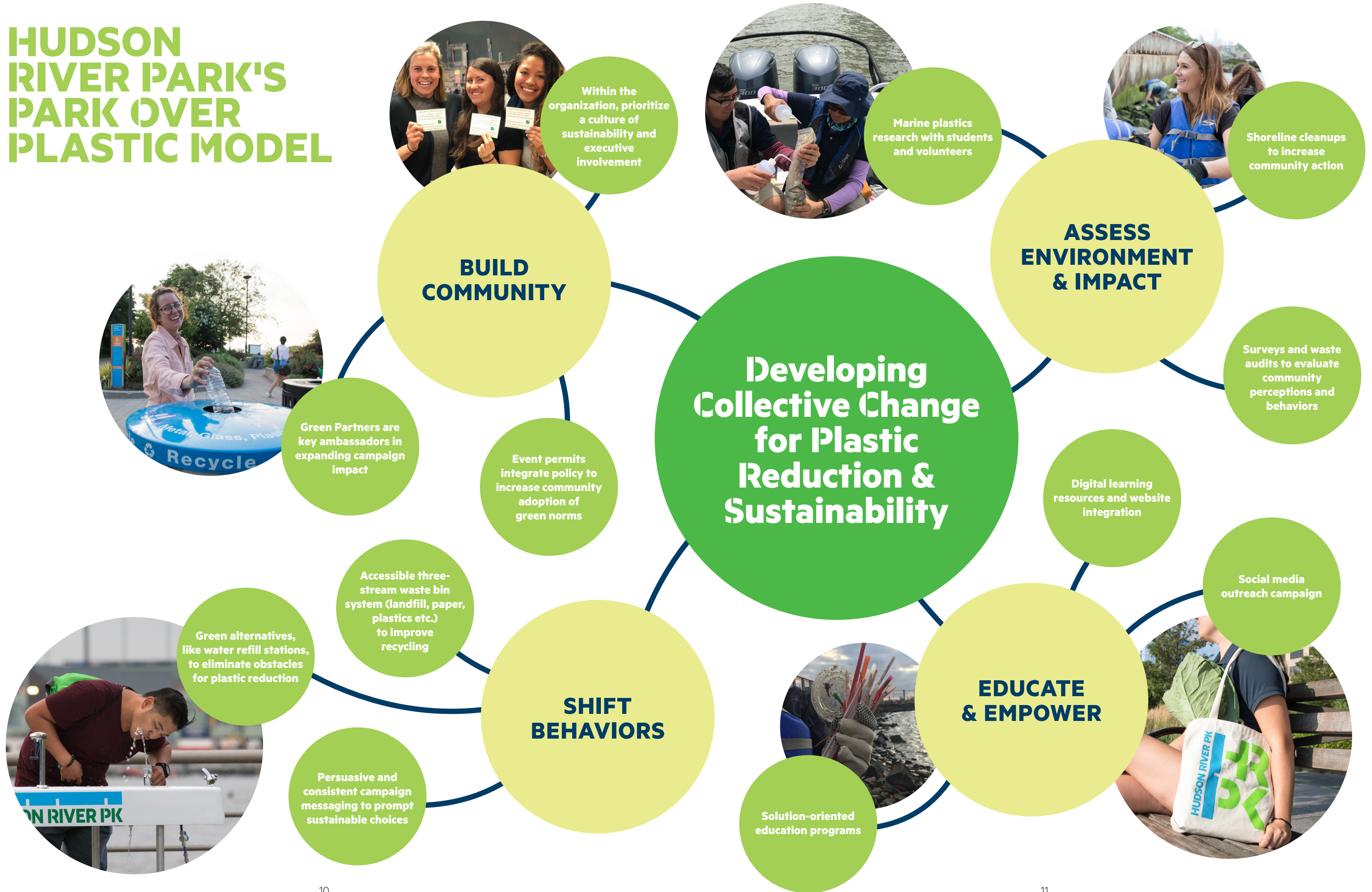
Changing behaviors on a community level is also key in helping to reduce plastic pollution in our local waterways and beyond. Education and integration of behavior change strategies targeting Park users, such as installing prompts on water fountains to encourage the use of reusable containers, are major priorities of POP. Through school field trips and public education programs, the Park increases awareness of local plastic pollution and stewardship of the Hudson River. Other organizations can find ways to learn and take action together such as recruiting volunteers for beach or street cleanups, holding workshops and presentations with local experts or hosting a film screening or art exhibition. The internet is also a space with plenty of opportunity to create community. The Park utilizes social media, blogs, newsletters, online groups and other channels as platforms for meaningful outreach.

## COLLABORATING CROSS-SECTOR

Collaboration is fundamental to POP's origin and future success. Increasing recycling capacity throughout the Park and replacing plastic products in Park vending machines were two areas where the Park sought and achieved support from other partners. For example, the NYC Department of Sanitation (DSNY) provided additional recycling bins for the Park to improve recycling by Park visitors. The recycling bins were placed next to existing landfill bins making it easier to make the right decisions about waste disposal. DSNY also provided educational resources about recycling best practices. Meanwhile, Coca-Cola, a Park sponsor and vendor, fast tracked supplying alternatives to plastic water bottles in Park vending machines.

Greater participation in proactively reducing plastic consumption is needed to achieve a more sustainable future for our communities and wildlife. As you begin on your POP journey, consider what entities are necessary to make sustained change and engage their leadership to create a positive shared goal. Hudson River Park hopes that this Toolkit can help empower others to incorporate effective plastic reduction strategies and messaging by leveraging the POP approach.

# HUDSON RIVER PARK'S PARK OVER PLASTIC MODEL



# TOOLS & RESOURCES: MESSAGING

Incorporating messaging that is both encouraging and educational helps to inspire action through a variety of channels. Key opportunities to leverage include physical signage, social media and your website. By using each of these platforms strategically, you can initiate a fluid awareness campaign and dialogue with your community.

Engaging messaging can be used to provide prompts and tips focused on specific actions people can take to minimize their plastic footprint, and share information to promote why these actions matter. Always consider who is sharing the message too, because people listen best when they are hearing something from a trusted source. Help your community embrace your organization as a trusted voice by uplifting current and fact-checked resources and consistently taking action on plastic pollution issues.



## Signage

Signs that are thoughtfully written and placed offer helpful prompts and reminders for eco-friendly behaviors in a wide range of settings. For example, placing conspicuous, color coded labels with illustrated examples of acceptable waste items on trash and recycling bins will encourage people to properly recycle plastic waste. A sign next to a bottle filling station stating the environmental or economic benefits of refusing single-use plastic water bottles can help reinforce the eco-friendly behavior of carrying a reusable water bottle. In Hudson River Park, decal stickers and posters with concise POP messaging were dispersed on all Park recycling bins, fountains and throughout indoor facilities to increase awareness and encourage participation in POP.

Signage can also be used to promote events, spread awareness and uplift the success of partners. Park tenants that engage with the initiative as Green Partners and work to reduce plastics in their businesses were provided with custom-made plaques, decals and postcards to display their POP commitment to their clientele. POP flyers with a call to action are also displayed at public programs and community outreach events with relevant POP web links and contact information. Consider how your network can show their support while prompting the desired eco-friendly behaviors through signage.

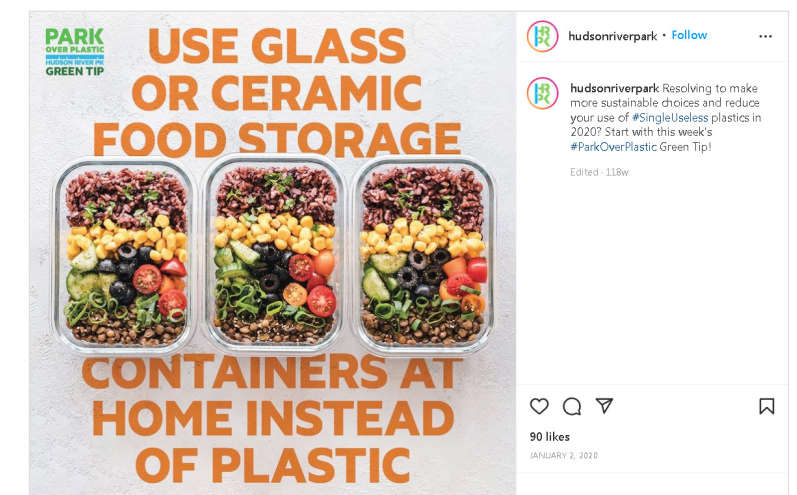
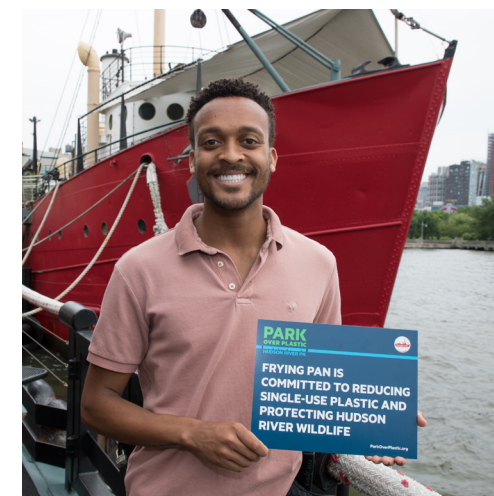
## Digital Communications

Social media creates regular touch points with the local community and general public, allowing for opportunities to share impactful images and relevant resources. For example, consistent posts with sustainability tips can draw in followers, and a simple hashtag can help relevant posts be searched more easily. Educational demonstrations or updates about the initiative using the Live function on Facebook or Instagram can also engage interested followers.

The Hudson River Park website has a section dedicated to POP and its resources. On these pages, it offers a comprehensive online catalog of plastic reduction guidelines, educational blog posts, sustainability event listings, plastic pollution lessons for kids, research reports, volunteer opportunities and more. Incorporating resources and plastic reduction messaging into your website is an effective way to streamline relevant information and resources to encourage people to learn, participate and stay involved.

## Digital Resources

See examples of Park Over Plastic messaging here



# TOOLS & RESOURCES: EXTERNAL PARTNERS

Establishing partners who are committed to the Park Over Plastic initiative is key in creating a collective impact. Hudson River Park created the Green Partnership Agreement for Park tenants to promote engagement, awareness and accountability within businesses. Memorializing plastic reduction actions in permits and licenses issued by the Park helps current and future tenants institutionalize sustainable actions and share the responsibility of reducing Park-wide plastic pollution.

Permits clearly define the Park's expectations and standards with respect to restrictions on single-use water bottles and the phasing in of methods to reduce or eliminate plastics. Such agreements not only have the direct effect of eliminating some single-use plastics in the short term, but also build an engaged, committed community. Explore ways to memorialize the initiative through agreements and positive encouragement of your partners to sustain investment in reducing plastic pollution.



## GREEN RESOURCE GUIDE

At the launch of POP, it was discovered that the Park community needed help identifying plastic alternatives and sustainability best practices. The Park took the initiative to research products and vendors that are aligned with POP commitments. Based on community feedback, the Park compiled a guide called the Green Resource Guide (GRG) to share plastic alternatives for a range of products. The GRG also helps create shared language and breaks down industry jargon, such as the differences between compostable and biodegradable products, to better communicate and collaborate.

### Digital Resources

See examples of the Green Partnership Agreement and Green Resource Guide here

Recognizing that the market has yet to offer many products that solve some of our greatest plastic pollution problems, the GRG's recommendations offer stepping stones for those beginning to reduce their plastic use within their business at the Park. All products in the guide have been researched to ensure that they meet green standards and are suitable alternatives to existing products. The GRG is updated regularly, shared with tenants and permittees and is also available on the Park website. We welcome suggestions for additional items to include in this guide. You may share your suggestions by reaching out to [education@hrpt.ny.gov](mailto:education@hrpt.ny.gov).

# TOOLS & RESOURCES: OUTREACH

Learning about our environment and how our actions can impact local ecosystems helps to inspire positive change. Educational programs for local communities and schools can provide learning spaces to build knowledge, skills and relationships that support sustainability. Partners looking to inspire action should begin by providing the “why” and the purpose for their respective communities. For example, educational workshops, lectures, guest speakers, family events and supplementary learning material can all help create positive motivation, teach how our systems work and inform strong actions for a wide range of stakeholders. Below are examples of how Hudson River Park's education programs introduce NYC students and the general public to environmental science and plastic pollution. Additionally, digital learning resources, such as free STEM lessons, are publicly accessible on the Park website.

Examples of topics at Park education programs include:

- › Single-use plastics and types of plastic
- › Local waste streams and sorting our trash
- › Environmental impacts of plastics
- › Wastewater systems and microplastics
- › Solutions on individual and community levels



## Educating Youth

Prioritize youth empowerment and involvement by forming partnerships with local non-profit organizations, schools and universities. Field trip programs allow for direct engagement with local students and families who can then share their learnings at home and within their communities. Before we can create solutions, it is imperative that we provide opportunities for youth to understand the mechanisms behind our plastic problem. Programs that investigate the effects of plastic waste in food webs, develop visual communication materials and explore local wastewater treatment processes are great introductory topics. Hudson River Park's River Project hosts a variety of education programs for schools and community centers focused on sustainability and plastic reduction. Field trip programs like “Pollution Solutions” encourage students to take inventory of their plastic use and build connections between their actions and the health of local waterways.

## Engaging the Public

The general public can also be engaged in plastic pollution education to help them participate in local solutions. When hosting public events, it is critical to set an example of how to refrain from creating plastic waste. Help participants rethink the necessity for single-use plastics by offering and encouraging the use of plastic-free products and providing reusable water bottles and water refill stations.

Public events are an opportunity to model low-waste strategies and sustainable products. Place plenty of clearly labeled recycling and trash bins that are paired next to each other. Provide water fountains or water jugs with compostable cups. A reusable water bottle, tote bag or utensil kit giveaway can also encourage and engage more attendees in sustainable behaviors. Share plastic reduction efforts taking place within



the organization and communicate how people can participate in those efforts. Ensure that participating vendors are also aware of your plastic-free policy and give examples of approved products (refer to our Green Resource Guide for ideas). The Park created an opportunity for the public to learn about plastic pollution at the SUBMERGE Marine Science Festival, one of its largest annual public programs. To ensure the event was free of single-use plastics, the Park partnered with a local organization to provide reusable serving bowls, required food vendors to distribute non-plastic containers and utensils and discouraged exhibitors from bringing plastic hand-outs and giveaways. During the event, the Park also featured its ongoing plastics research and other relevant programming as well as projects by partner organizations.

## Learning Online

In the wake of the COVID-19 pandemic, many of the Park's education programs were reworked to be virtual with web-accessible resources. Community members can freely download activities and view recorded programs with local experts related to plastics research and environmental science below. Always prioritize accessibility with online learning, including transcription, translation and ASL interpretation to help as many people as possible engage with the content.

- › [STEM Activity of the Week](#)
- › [Live from the Field](#)
- › [Ask a Scientist](#)

## Digital Resources

[See lessons and activities focused on plastics education here](#)



# TOOLS & RESOURCES: EVALUATION & METRICS

Tracking and auditing program progress is vital to POP. Evaluation informs the development of robust metrics, meaningful results and relevant resources. In the first two years of POP, Hudson River Park hired consultants from Knology, a social science organization, to evaluate the success of POP in plastic reduction behaviors and practices within the Park's community.

During the two-year audit, the Park and Knology focused on two key aspects of the POP initiative: plastic waste reduction in physical spaces throughout the Park and plastic waste behavior change through education and outreach within the Park community which includes staff, tenants and Park visitors. To evaluate plastic waste reduction, a waste audit at high-traffic sites in the Park was conducted annually. To evaluate community impact, surveys and interviews were used to learn about attitudes and behaviors within the Park. By surveying how Park users' sustainability behaviors and literacy change over time, the Park can better understand the impact of Park Over Plastic in the Park's community.

One key finding from this study was that strategic bin placement (pairing trash and recycle bins) and targeted messaging improve public recycling practices in the Park. Encouragingly, when surveying community perceptions, 80% of those surveyed responded that their reason to reduce plastic waste was to protect the environment, helping the Park direct its messaging accordingly. The methods and results from this study are available in this Toolkit.

## Digital Resources

[See waste audit methodology, reports and more here](#)

## Park Waste Metrics

Hudson River Park's Operations Department tracks waste quantities on a daily basis in all areas of the Park. Waste metrics allow organizations to determine how much waste is being generated and shines light on waste stream contamination. Collecting waste metrics can help inform waste receptacle design and placement, messaging and education. Though methods are continually being optimized, the provided tools are examples of ways to quantify landfill and recycling waste to determine receptacle usage and waste management needs.

## Park Over Plastic Progress Report

The Park Over Plastic Year One Highlights Report is a summary of the POP initiative in its first year of operation. Significant operational updates and changes were made to accommodate the goals and priorities of POP. The successes and next steps from the first year of POP are highlighted in this document.



# TOOLS & RESOURCES: RESEARCH

Studying plastic pollution in your community is an important way to measure the amount and types of pollution present. Plastics research also creates a local data set that can help motivate your team and stakeholders to make a change.

One approach is to host a shoreline or street cleanup and track the plastic debris using a datasheet like the one provided in this Toolkit. Count and categorize the types of plastics found, and note details like date, time, location and unusual or recurring items to learn about the debris that are collecting in your area and inform next steps for pollution prevention. For further research, seek partnerships with a local scientist or institution to conduct in-depth surveys on plastic concentrations in your community.

Hudson River Park's River Project has conducted a long-standing project to research marine microplastics and macroplastics. With the help of community volunteers, Park researchers collect, count, categorize and remove marine debris from two shoreline locations in the Park on a regular basis. In 2019, over 4,000 pieces of marine debris, which added up to over 500 pounds, were removed from Park shorelines. Between 2016 and 2019, the Park also collected microplastics with a surface trawling net from June to October, and hundreds of thousands of pieces are collected, counted and categorized. This data is used to report on the most common plastic contaminants in the Park and help determine the concentration of microplastics in the Park's Estuarine Sanctuary.

Once the data is collected, your next step should be to share the information to help others understand the issue more acutely and identify how communities can support plastic reduction both locally and regionally. Sharing data at cross-sector conferences, local governance meetings and within reports or scientific journals is also an effective way to make research findings a helpful resource for environmental practitioners, students and scientists.

The Park's research on microplastic pollution is available in the Marine Pollution Bulletin, a peer-reviewed international scientific journal.



## Digital Resources

See Park reports and methodology [here](#)

# JOIN PARK OVER PLASTIC

Taking the first steps to a cleaner, healthier environment may seem daunting. The Park hopes that the POP Model and Toolkit empowers more organizations, businesses and communities to reach collective sustainability goals. Join us in mobilizing action against plastic pollution.

Single-use plastics are a common staple in our everyday lives, but by taking steps together, we can reduce our reliance on unnecessary plastics and build a more sustainable community. Here are a few tips to help you get started:

- › Carry a reusable water bottle and refill it rather than purchasing plastic water bottles
- › Bring your own reusable bags when shopping and say "no thank you" to plastic bags
- › Keep a set of utensils at your workplace to avoid plastic cutlery at lunch time
- › Learn about local recycling requirements and discard your waste appropriately
- › Participate in a local trash removal or shoreline cleanup events



## Your Feedback

As the POP initiative continues to grow over time, this Toolkit will also evolve to fit the needs of its users. The Park strives to consistently improve its resources to better support our community's needs.

Click [here](#) to complete a brief survey. Thank you for your feedback!

# DIGITAL RESOURCES

Below you will find a detailed list of linked resources shared throughout the Park Over Plastic Toolkit. These materials may also be found on our website [here](#).

## Messaging

- › Physical Signage
- › Website
- › Social Media Engagement

## External Partners

- › Green Partnership Agreement

## Green Resource Guide

- › Green Resource Guide

## Outreach

- › Youth Education Programs
- › Public Education Programs
- › Virtual Learning Activities
- › Community Involvement

## Evaluation & Metrics

- › Knology POP White Paper
- › Park Over Plastic Year One Highlights
- › Community Survey
- › Waste Audit Methods & Datasheet
- › Waste Removal Tracking Sheet

## Research

- › Marine Debris Research Methods & Datasheet (Shoreline Cleanup)
- › Marine Debris Research Reports & Data
- › Volunteer Shoreline Cleanup Description
- › Microplastic Research Lab Data Sheet
- › Microplastic Research Methodology
- › Microplastics ID Guide
- › Microplastics Research Reports & Data
- › Marine Pollution Bulletin Research Note



# REFERENCES

1. Science History Institute. (2020). History and Future of Plastics. <https://www.sciencehistory.org/the-history-and-future-of-plastics>
2. MacArthur, D. E., Waughray, D., & Stuchtey, M. R. (2016). The new plastics economy, rethinking the future of plastics. World Economic Forum and Ellen MacArthur Foundation. <https://www.ellenmacarthurfoundation.org/publications/the-new-plastics-economy-rethinking-the-future-of-plastics>
3. Free, C. M., Jensen, O. P., Mason, S. A., Eriksen, M., Williamson, N. J., & Boldgiv, B. (2014). High-levels of microplastic pollution in a large, remote, mountain lake. Marine Pollution Bulletin, 85(1), 156-163.
4. Allen, S., Allen, D., Phoenix, V. R., Le Roux, G., Jiménez, P. D., Simonneau, A., ... & Galop, D. (2019). Atmospheric transport and deposition of microplastics in a remote mountain catchment. Nature Geoscience, 12(5), 339-344.



# PARK OVER PLASTIC TIMELINE

## Pre-2019

### 2010

- › Began community volunteer shoreline cleanups

### 2015

- › Initiated annual macroplastic research

### 2016

- › Initiated annual microplastic research

### 2017

- › Incorporated plastics education in school programs

### 2018

- › Organized Staff Eco Club & presented microplastics research at NY/NJ Harbor Estuary Program Science and Action Conference

## 2019

- › Presented microplastics research at the Hudson River Symposium and Rutgers Urban Environment Conference
- › Launched POP with website takeover, press release and kick-off event
- › Contracted with Knology to evaluate POP and assess needs
- › Deployed 25 additional recycling bins throughout Park with POP messaging
- › Installed over 40 indoor and outdoor water refill fountains with POP messaging
- › Provided hydration stations and plastic alternatives at volunteer and Park events
- › Educated about plastic pollution at public programs
- › Updated all event permits, new leases and RFP's with POP agreement
- › Hosted the Park's first plastic-free event: Hudson River Dance Festival
- › Recruited 14 Park tenants as Green Partners
- › Developed the first edition of the Green Resource Guide
- › Completed Year 1 surveys and waste audit with Knology

## 2020

- › Presented microplastics research at MICRO2020 International Conference and New England Estuarine Research Society Meeting
- › Began NYU Capstone Seminar course for POP outreach
- › Hosted annual tenant POP working group meeting
- › Updated the Green Resource Guide
- › Integrated microfiber research into the Park's high school research internship
- › Deployed 20+ new recycling bins to pair with trash bins in the Park
- › Published Park microplastic research in scientific journal; Marine Pollution Bulletin
- › Began volunteer language translation project for plastics education student activities
- › Hosted SUBMERGE Marine Science Festival with local experts discussing plastics
- › Completed Year 2 surveys and waste audit with Knology
- › Published Knology Year 2 Report
- › Updated Park vending machines with aluminum cans

## 2021

- › Presented POP and Knology report findings at The Nature of Cities Festival
- › Presented microplastics research at the National Monitoring Conference
- › Presented POP and Park research to Columbia University's Build it Green
- › Hosted annual tenant POP working group meeting
- › Distributed POP commitment signage for Green Partners
- › Completed Park-led waste audit
- › Continued microfiber research with high school research internship
- › Presented POP work at the NY/NJ Harbor & Estuary Program Conference



# PARK OVER PLASTIC TOOLKIT



**HUDSON RIVER PK®**