HUDSON RIVER PK
RIVER PROJECT

Waste Report 2021

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Purpose

Since 2019, Hudson River Park has been committed to its Park Over Plastic initiative, which is designed to reduce single-use plastics and educate the community about plastic pollution. The Park has taken many steps to improve and encourage proper recycling throughout the Park, including increasing waste bins and strategically pairing trash and recycle bins with signage. In order to determine the effectiveness of these waste management methods, a yearly waste audit is conducted within the Park. In addition to plastic waste, the Park composts food scraps and horticulture waste to further its sustainability goals. Hudson River Park's Community Compost Program welcomes food scraps from local residents at 10 drop-off locations throughout the Park which is then processed into compost and distributed to plant beds. The purpose of this report is to share findings from the Park's waste metrics and provide data to inform day-to-day operational strategies and sustainability measures within the Park.

Project Goals

- Operate and maintain 10 community compost drop-off sites
- Process food scraps and horticulture waste into compost to support plant health and Park sustainability
- Manage over 100 landfill and recycling bins within the Park
- Streamline waste metrics, increase recycling, and improve waste management capacity
- Engage and educate the community through programs, resources, and volunteer opportunities

Waste Audit Methods

- On Day 1, collect one recycling and one landfill bag from half of the 13 pre-determined sample sites in the Park
- Weigh and record each full bag.
- Remove all non-organic material from each bag and record the number of items in each category listed on the data sheet (Plastic utensils, straws, beverage bottles, etc.).
- Record the weight of the items in each category, and each item's resin identification code (RIC)
- Record the number of contaminants from each bag and any unique plastic alternatives or common brands. Recyclables are contaminants in landfill bags and non-recyclables are contaminants in recycling bags.
- Set aside any liquid in a bucket to be weighed and recorded at the completion of each bag
- Repeat on Day 2 with the second half of sample sites.

Fig. 1 | River Project staff categorize, count, weigh and record contents of Park waste bins in an annual waste audit.

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Composting Methods

- Horticulture staff collects all organic waste produced when maintaining the Park's landscape, primarily carbon-rich material
- Members of the community bring food scraps to a drop-off location, primarily nitrogen-rich material
- All organic waste is dropped off at the Park's Compost Center on 33rd street where it is weighed and processed in the Park's Green Mountain Technologies In-Vessel Earth Flow industrial composter
- Compost is made in approximately one to two months and returned to plant beds in the Park
- Volunteer groups support maintenance in the Compost Center

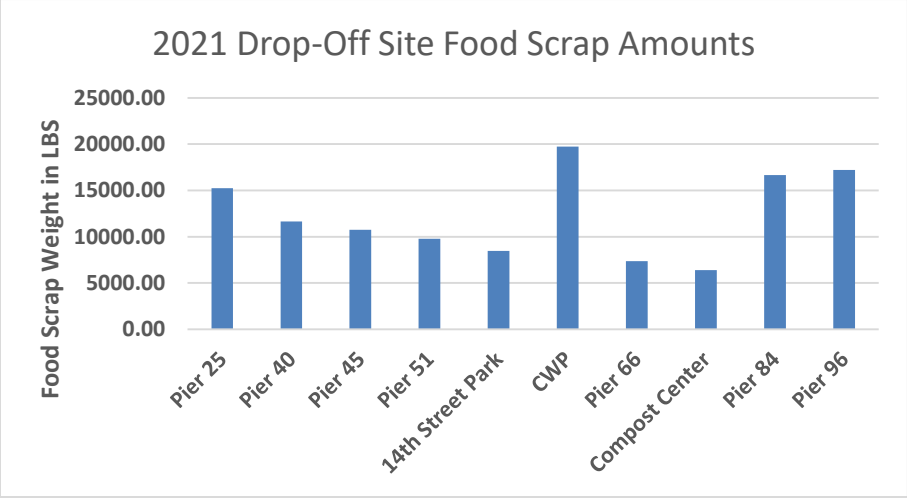

Fig. 2 | Of the 10 Park Community Compost drop-off sites, Chelsea Waterside Park (CWP) was the highest contributor of food scraps in 2021.

Fig. 3 | The Park's fourth annual Pumpkin Smash composted 1,115 pounds of old pumpkins brought to the event and smashed by local residents.

Major Findings

On Day 1 of the waste audit, the Pier 40 tunnel landfill bin had the highest contamination by weight and accounted for 31% of the total weight of that day's contaminants. On Day 2, Pier 84's recycling bin had the highest contamination by weight; it accounted for 41% of the total weight of that day's contaminants. In 2020, an average of 20.31% of the weight of all landfill bins was contaminants. We saw this average decrease in 2021 to only 4.98%. Overall, with the exception of Pier 84, there were fewer contaminants in recycling bags this year than in 2020.

As of December 2nd, 2021, the Park composted 125,736 lbs. of food scraps. This is a combination of collections from all 10 public drop-off locations, Pier 40 offices, boathouses, and Pumpkin Smash. Combined with approximately 350,000 lbs. of horticulture waste, the Park diverted a total of 475,736 lbs. of organic waste from landfills and processed it into nutrient-rich compost for Park grounds. Of the 10 drop-off sites, the Compost Center, Pier 40, and Chelsea Waterside Park were the top three contributors, with a combined total of 53,604 lbs. of food scraps. (Fig. 2)

Take Aways

The results of the waste audit suggest that Park users' recycling habits are generally improving. One theory for this change is that people are more likely to make a choice to recycle with the increase of paired trash and recycling bins throughout the Park. It is also possible that the general public is growing more aware of plastic waste and recycling best practices. Pier 25 demonstrates an example of a possible increase in recycling behavior. This area serves a largely residential neighborhood that has seen an increase in repeated visitation due to the COVID-19 pandemic. Recycling trends in this area of the Park may also be related to visitors' familiarity with the increased recycling receptacles. This shows a contrast to parts of the Park, such as Pier 84, which are more popular for tourists who tend to be less knowledgeable of local recycling methods. Compost totals continue to rise over the years because locals are increasingly utilizing the Park's drop-off bins to dispose of food scraps. The annual Pumpkin Smash showed that community members were interested in supporting and participating in Park composting events (even as the COVID-19 pandemic continues) with 272 attendees at this year's Pier 84 event.

Future Directions

The evolution of Park Over Plastic and the Community Compost Program has shown tremendous progress towards the goal of a low-waste Park. The waste audits and ongoing tracking show that recycling and composting in the Park have become more effective in 2021 than ever before. These results provide a positive outlook for the further evolution of both programs. Future improvements in waste education and management could take place in the form of more signage in the Park, community education events centered on waste and waste reduction, incorporating food scraps in future waste audits, continuing to pair landfill bins with recycling bins throughout the Park and, in the long term, considering a switch to smart waste bins such as Bin-E. These actions, though only a starting point, can and will continue to promote the mission of waste sustainability in Hudson River Park.

Fig. 4 | Chopping organic scraps, like pumpkins, helps expedite the decomposition process.