Green Initiatives at the Penn Relays
Brigitte Baella and Hannah Sanders
Eco-Reps 2018-2019
In partnership with Keith Maurer (Penn Athletics)
With mentoring from Julian Goresko (Sustainability Manager)

Abstract

We built off of last year’s initiative to increase efficiency, maximize the volunteer experience, and continue the impact of our efforts.

Project Background

Information about Penn Relays

The Penn Relays is an annual, three day track and field event which attracts about 100,000 attendees each year. Large sporting events of this nature tend to promote a culture of consumption, disposables, and waste. However, with this many people coming to Penn’s campus over three days, there is also enormous opportunity for outreach and education.

2018 Relays

Last year, Student Eco-Reps initiated an extensive sustainability project working with DRIA and Penn Relays to reduce bottled water usage and divert waste from landfill. Our primary goals of this project last year were to minimize (with the intention to eventually eliminate) the use of disposable plastic water bottles as well as to effectively divert recyclables and organics from going to landfills in the municipal solid waste (MSW) stream.

We established an efficient water-filling system to allow for the use of small recyclable cups rather than water bottles. We also ran a 3-bin waste disposal setup (separate bins for landfill trash, recyclables, and compostable food items) in key areas to make sure waste streams were properly separated. We monitored both of these components with a team of over 80 volunteers over three days.

Information about water bottles and waste

See last year’s report for information about historic water bottle use and the environmental impact of the Penn Relays.

Project Overview

Water Station

Last year and this year, we used the Water Bar water filler from US Pure Water to fill 10-gallon water coolers which were located at the finish line and in the field. These fillers were very useful, as
they were set up right behind the finish line and could easily be filled and brought to the various water stations.

In addition, we had Coca-Cola donate 12 oz water bottles instead of 16 oz ones, which would create less plastic waste and less water waste, since athletes typically do not drink the entire contents of the 16 oz water bottles. Using 12 oz bottles minimized the amount of waste generated for events at the Relays where bottles were used.

_Waste Diversion_

Last year, we diverted 520 pounds of organics from landfill using Organic Diversion. We were not able to get information on recycling weights from Penn’s waste hauler.

This year, we collected organics for transportation to our on-campus BiobiN. This allowed us to collect compostable paper products including plates and napkins, in addition to all food waste.

We had triple bin diversion stations (co-located bins for landfill trash, recyclables, and compostable food items) in the Rockwell Gym where Relays officials dine for breakfast, lunch, and dinner throughout the event, with all meals catered by Aramark. We did not collect compost or have volunteers stationed in the outdoor Vendor Village area. We did, however, place paired bins (landfill and recyclables) with lids in the vendor area in order to encourage recycling and reduce contamination.

_This year, we diverted ## pounds of organic waste and ## pounds of recycling and sent ## pounds of waste to incinerators._

_Volunteer Recruitment_

Last year, volunteers were recruited through extensive circulation of a Google Form describing the expectations of the volunteer role. Ninety-nine volunteers signed up through the Google Form. Fifteen Group Leaders signed up to help oversee the initiative and ensure the event ran smoothly. The Group Leader role entailed a short training session the week before the event.

Schedules for all roles were made manually using availability collected through the form, and volunteers were assigned a median of two 2-hour shifts over the course of the 3-day event. Building the schedule took many hours and was complicated and labor intensive. Tracking attendance in the midst of the 3-day event was difficult, but the majority of people did show up for their shifts.

This year, volunteers were recruited via circulation of an Eventbrite page for the event. Each shift was inputted as a free ticket, with 8 tickets available for each shift. Volunteers were encouraged to sign up for two shifts if they were able. This format allowed us to build the schedule automatically as volunteers signed up, eliminating multiple hours of labor spent scheduling. We had ninety-three volunteers sign up through the Eventbrite form.
Incentives for volunteers were the same as last year (a branded cap, food vouchers, and free access to attend the Relays throughout the weekend).

**Challenges**

*Planning and metrics*

Using the Eventbrite system allowed us to streamline scheduling, but it made it difficult for us to keep track of retention and attendance. Once volunteers signed up, they were able to “return” their tickets through Eventbrite if they no longer wished to volunteer. This made it a challenge to track how many sign ups and cancellations we had, as well as to get in touch with people who cancelled in order to understand their reasons for cancelling.

*On-site challenges*

Either or both Brigitte and Hannah were on site for the majority of Thursday and Friday of the Relays, but they both had off-campus commitments preventing them from being at the Relays on Saturday. This created challenges in leadership for the Saturday events. Other Student Eco-Reps were trained on the various parts of the initiative and given the information necessary to run the sustainability initiatives in Brigitte’s and Hannah’s absences. However, there were still complications without them present, including getting in contact with Penn Athletics staff on site for getting credentials for entry and food vouchers for volunteers. The staff were not familiar with the other Eco-Reps and were less responsive to them than they may have been with Brigitte and Hannah. In the future, we recommend that all Eco-Reps involved with the initiative have a meeting with necessary staff prior to the event.

On both Friday and Saturday, there were torrential downpours and thunderstorms, and the stadium had to be evacuated a total of three times. This made the event last longer than originally planned, since no races could take place until 30 minutes after the last thunderstrike. Therefore, when volunteers for the final shift left at 7PM, there were no volunteers present to help fill water cups. Volunteers left the entire table filled with empty water cups and filled coolers so that the athletes could fill the cups themselves.

On Friday night, the coaches’ dinner was more of a formal gala with drinks and hors d’oeuvres, and the event occurred 2 hours later than originally planned. Because of this, sustainability volunteers were not allowed in to monitor and collect food waste, but bins were left outside the door, and the sustainability volunteer team hoped that the coaches had learned from using the triple bin diversion stations during the past two days and would be able to properly dispose of their waste.

**Recommendations for future projects**

*Future Penn Relays*

1. Plan volunteer capacity according to need based on meal schedules.
We had 8 volunteers per shift (with variance depending on if all tickets were reserved or if everyone attended), and this number of volunteers proved to be too many during times when meals were not being served. We only needed about 3 people to run the water station, so in future years, the number of people for each shift can be adjusted to 8-10 people during meals and 3-5 during other times (The goal is to have 8 during meals and 3 during other times, with some cushion to account for people who do not attend).

2. Have a water filling station available to attendees.*

The station was easy to operate, but perhaps too high-pressure for use with individual water bottles. Penn Sustainability purchased a water bottle filling bar for use at large events of this type, but it has not yet been deployed for use. We were unable to use the bar at the Penn Relays this year due to contract violations with Aramark, a company that sells bottled water at the event. More advanced planning and conversations (staring in Fall 2019) around this topic are recommended for future years.

3. Develop a way to measure recycling collection from the Relays so that we can get a more comprehensive summary of our diversion.

4. Measure water used.

We should investigate water systems which might measure how much water has flowed. This would allow us to more accurately track the volume of water used and eliminate inefficiencies of counting/estimating how full each cooler was.

5. Conduct a waste audit.

After the event, we recommending selecting a few bins (some in Rockwell Gym, some monitored in the Vendor Village area, some unmonitored in the Vendor Village area) and measure contamination rates in the various streams.


Asking volunteers if they “would volunteer again” another year or for a similar waste reduction initiative would be a good indicator of volunteer satisfaction. This year, we did not conduct a feedback survey due to time constraints with end-of-year logistics. See last year’s report for more information.

*These measures could be applied to other large events held on campus.

Key stakeholders (incl. partners)

a. Keith Maurer, Assistant Director, Penn Athletics
b. Ross Leiman, Supervisor, Penn Housekeeping
c. Craig Roncace, Manager, Penn Urban Parks

d. Ken Neborak, Supervisor, Urban Parks

e. Julian Goresko, Sustainability Manager, Penn Sustainability Office