SEA ISLE CITY BEACH CLEAN-UP REPORT APRIL 17, 2021



Sea Isle City Environmental Commission members along with Trish Jackson and Christie Ostrander from the Department of Community Services during the Beach Clean-Up on April 17

Prepared by Maria Andrews Sea Isle City Environmental Commission

Acknowledgments

The Sea Isle City Environmental Commission is immensely grateful to the many volunteers who participated in the Sea Isle City Beach Clean-Up on April 17, 2021.

We extend a warm thank you to the following groups and city departments who also participated in the Beach Clean-Up:

Sea Isle City Public Works Department Department of Community Services: Public Relations/Recreation/Tourism First Bank of Sea Isle

We would like to acknowledge Katherine Custer, Director of the Department of Community Services of Sea Isle City who provided all the photos and captions attached to this report.

We thank Clean Ocean Action for including the data collected from Sea Isle City in their state wide report.

Lastly, I would like to thank all my fellow Sea Isle City Environmental Commission members led by our President Annette Lombardo for their participation and organization of this successful Beach Clean-Up event.

Maria Andrews
SIC Environmental Commission

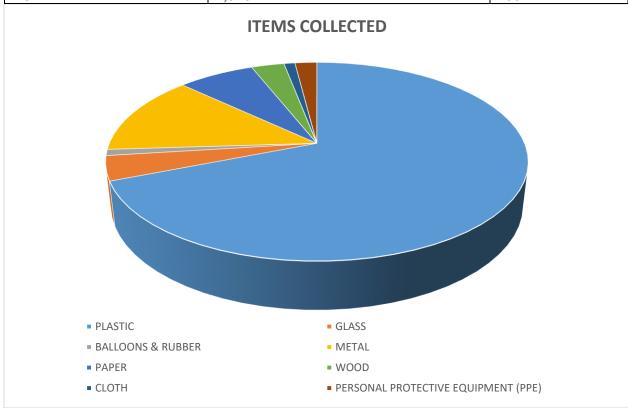
BEACH CLEAN-UP SUMMARY – April 17, 2021

The Sea Isle City Spring 2021 Beach Clean-Up took place on April 17. Here are some of the highlights:

More than 150 volunteers showed up to clean our beaches. The weather was sunny with a temperature range of 53°F early in the morning to 56 °F by noon and a breeze with wind speed of 10 miles per hour. The crowd was composed of a variety of ages and from different locations. All volunteers were enthusiastic, and eager to participate in the Beach Clean-up effort. They managed to collect 4,826 pieces of trash and debris. They turned in 61 data cards, the compilation of which was sent to Clean Ocean Action for inclusion in their statewide totals.

Number of items collected based on categories displayed below:

CATEGORY	NUMBER OF ITEMS COLLECTED	PERCENTAGE %
PLASTIC	3,347	69
GLASS	179	4
BALLOONS & RUBBER	30	1
METAL	643	13
PAPER	325	7
WOOD	162	3
CLOTH	34	1
PERSONAL PROTECTIVE	106	2
EQUIPMENT (PPE)		
TOTAL	4,826	100



The most heavily reported categories:

-	Plastic Cigarette Filters:	716
-	Plastic Food/Candy Wrappers:	494
-	Plastic Bottles Caps/Lids:	298
-	Foam Plastic (all forms):	471
-	Plastic Bottles:	337
-	Plastic Pieces:	146
-	Plastic Bags:	203
-	Metal Bottle Caps:	115
-	Metal Cans:	418

These ten categories account for 66% of the total items reported.

According to the data shown above, plastic collected items were the most abundant among all of the categories collected. Within the plastic category, cigarette filters represented 21% of the total collected plastic items.

Some of the more unusual items collected:

Screwdriver	Sand dollar	Pesticide signs and sticks
Chair	Aluminum siding	Styrofoam block
Smashed dinner plates	Recycling bin top	Rusty metal plate
Sunglasses	Large warning sign	Vaping devices
Prescription glasses	Medical marijuana case	Large crap trap
Piece of burlap	Wicker light fixture	Metal worm clamp
Piece of lumber	Golf club and ball	Stop sign post
Roofing paper	Barbie doll clothing	Shamrock coin
Shower head	"Please keep off the dunes"	'sign

E-cigarettes Boot

Written volunteer comments:

The pavilion area draws a lot of trash!"

[&]quot;Beach was surprising very clean"

[&]quot;Too many cigarette butts/filters to count"

[&]quot;Found a whole bag of recycling in the grasses at the bay"

[&]quot;Lots of liquor & beer bottles/cans thrown into brush"

[&]quot;There is a lot of trash on the dunes that is hard to get"

[&]quot;This form is a little too detailed. The bags (white) for recycling were thin and small but our family really enjoyed cleaning our beach!"

[&]quot;Only one cigarette! Thank you smoking ban!"

[&]quot;51st street was pretty clean"

[&]quot;Can't get to everything by the bay"

[&]quot;Lots of plastic bags/wraps from building materials"

[&]quot;The path had the most trash; the beach was relatively clean"

[&]quot;Most stuff was in dunes"

[&]quot;The beaches were in good shape"

- "Homeowners appreciative and helpful"
- "A lot of construction debris"
- "Much less trash, least I've seen since 1999!"
- "Poison ivy by 40th St. bathrooms and along boardwalk"
- "Need cleanup along street side of dunes"
- "Not as bad as I thought it would be since it wasn't done in spring or fall of 2020"
- "A lot of cigarette butts and water bottle caps"
- "There is so many cigarettes (recommend a cigarette trash can)"
- "Beach itself was fairly clean, found most of the items in the dunes"
- "Dunes need to be searched with a long stabbing or grabber tool-can't reach through the tangle of bushes"
- "Most of the trash was food products"
- "Pretty clean, not a lot of trash on the actual beach, more trash in the dunes, beach looked beautiful"
- "Clean beach! Most found road side"

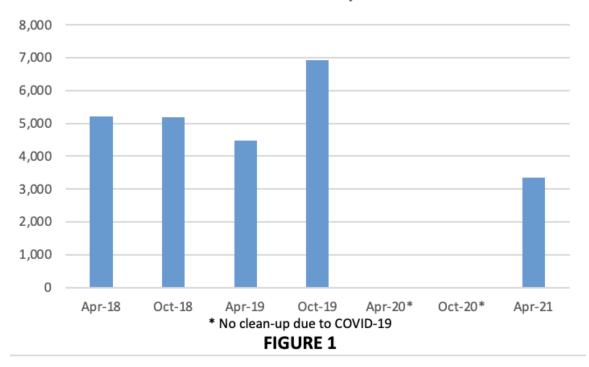
Recommendations/Conclusion:

Based upon the data collected and the observations recorded by the volunteers, the overall number of plastic items collected during the April 2021 beach cleanup shows a decrease when compared to the data collected from previous beach clean-up years (see Table 1). The largest decreasing trend can be observed between the data collected during the October 2019 beach clean-up event and the April 2021 beach cleanup event (see Fig.1). Beach clean-ups didn't take place during April 2020 and October 2020 due to COVID-19 restrictions.

Table 1

CLEAN-UP DATE	#PLASTICS COLLECTED DURING BEACH CLEAN-UPS, 2018-2021	•
Apr-18	5,202	
Oct-18	5,197	
Apr-19	4,474	
Oct-19	6,928	
Apr-20*	0	
Oct-20*	0	
Apr-21	3.347	

PLASTICS COLLECTED, 2018-2021



Even though this is a promising trend, an item of concern are plastic store bags, foam and plastic straws that are repeatedly found on our beaches. They pose an environmental damage to the beach and specially to marine life. New Jersey is moving forward with a ban on plastic grocery store bags, Styrofoam food containers and plastic straws. To prevent and minimize any harmful effects to the beach environment and marine life, Sea Isle City vendors could consider eco-friendly alternatives to replace the use of plastic store bags, Styrofoam food containers and straws. Currently some vendors in Sea Isle City have already adopted the use of paper straws. Some vendors are going a step further by not providing a straw with beverages served unless it is requested by the customer. This is a great initiative as it puts the consumer in the driver seat to make a choice in pursuing a more sustainable option to opt out of the use of a straw.

Data collection from the April 17, 2021 beach clean-up event, shows a decrease on the number of collected cigarette filters compared to previous years beach cleanups (see Table 1). However, cigarette filters or butts are the most common form of litter found in our Sea Isle beaches. Cigarette butts are non-biodegradable toxic plastics. Numerous scientific studies have found toxic heavy metals, such as arsenic, and toxic organic compounds, such as nicotine and polycyclic aromatic hydrocarbons released to the environment by cigarette butts litter. These chemicals can also leach out of the cigarette butt and pose acute toxic effects to aquatic organisms.

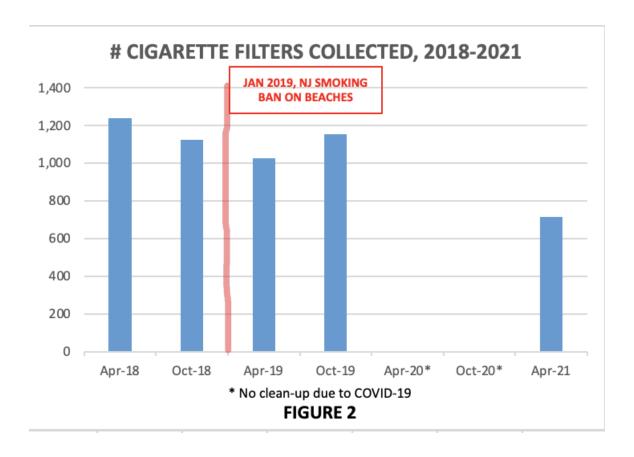
New Jersey's governor signed into law a revision of the New Jersey Smoke-Free Air Act in July, 2018 banning smoking and vaping at public beaches and parks. The ban went into effect in January 1, 2019. Sea Isle City, following New Jersey state law, banned smoking on all of its beaches and parks. Sea Isle City will not be designating any part of

our beaches for smoking. The Sea Isle City Police Department is responsible for the enforcement and education for the public of the smoking ban.

This smoking ban should facilitate a decrease in the number of cigarette filters littered on the beach, dunes and their proximity and it should also provide a decrease in the toxic effects triggered by cigarette butts. Sea Isle City Environmental Commission has been evaluating the effectiveness of this ban by comparing the number of plastic cigarette filters collected from previous beach clean-up events that took place before the smoking ban went into effect to data collected after the smoking ban was imposed (see Table 2 and Fig. 2) In that regard, the number of plastic cigarette filters collected on October 2018 beach clean-up event (pre-ban) was 1,124 and on the April, 2019 beach clean-up event was 1,026 (post-ban) showing a decrease of 9%.(see Table 2 and Fig. 2).

Table 2

CLEAN-UP DATE	#CIGARETTE FILTERS COLLECTED DURING BEACH CLEAN-UPS, 2018-2021
Apr-18	1,240
Oct-18	1,124
Apr-19	1,026
Oct-19	1,154
Apr-20*	0
Oct-20*	0
Apr-21	716



The number of plastic cigarette filters collected on October 2019 was 1,154 and the number of plastic cigarette filters collected on the April 2021 beach cleanup event was 716 (see

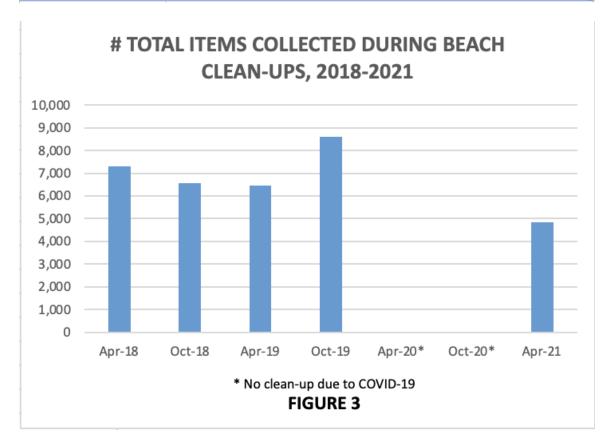
Table 2 and Fig.2), showing a decrease of 23 %. This decrease of 23% shows a positive trend however, it is challenging to determine whether the decrease is driven primarily by the smoking ban or driven by the COVID-19 restrictions or is a product of the combination of the two factors: smoking ban and COVID-19 restrictions. There is no data available for April 2020 and October 2020 due to COVID-19 restrictions. There is need to gather further beach clean-up collection data in order to assess the decrease of plastic cigarette filters over time.

Lastly, it can also be observed from the data and volunteers' observations that the total items collected during the beach clean-up event that took place on April 2021 decreased when compared to other previous years (see Table 3 and Figure 3).

As a new summer begins, we invite everyone in the community of Sea Isle City to protect our beaches and our environment.

Table 3

CLEAN-UP DATE	#TOTAL ITEMS COLLECTED DURING BEACH CLEAN-UPS, 2018-2021	~
Apr-18	7,318	
Oct-18	6,580	
Apr-19	6,458	
Oct-19	8,615	
Apr-20*	0	
Oct-20*	0	
Apr-21	4,826	



Photos of the Beach Clean-Up



A beach cleanup volunteer holding one of the many items they found on the beach (a miniature toy soldier) ©



Two volunteers at registration



At the registration table



Volunteers at registration



First Bank of Sea Isle City volunteers



Christie Ostrander and her son, Seth, cleaning the Municipal Marina



Volunteer Richard Parkes cleaning Excursion Park



A couple cleaning the beach



A volunteer cleaning the beach



Volunteers at registration

Photos by Katherine Custer, Sea Isle City Public Relations