

Reaching Beach Visitors: A Unique Cigarette Litter Prevention Program Lessons Learned and Recommendations for Resort Areas

Katie Register, Clean Virginia Waterways of Longwood University
Christina Trapani, Christina Trapani Consulting



THANKS!
FOR NOT LITTERING
Nobody wants to feel a
butt between their toes.

**KEEP IT
BEACHY
CLEAN**



Final Report to Keep America Beautiful from
Clean Virginia Waterways of Longwood University
May 2017

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Clean Virginia Waterways is affiliated with Longwood University and the Ocean Conservancy. The mission of Clean Virginia Waterways is to enhance the health of Virginia's water resources through pollution prevention, education, and stewardship activities involving Virginians from the classroom to the boardroom. Clean Virginia Waterways did pioneering research and education on cigarette butt litter in the late 1990s, and assisted Keep America Beautiful with the creation of its Cigarette Litter Prevention Program.

All images by Christina Trapani unless otherwise noted.

Acknowledgements

Clean Virginia Waterways would like to first acknowledge Keep America Beautiful, especially former Litter Programs Director Bronwen Evans, for approaching us and then funding this unique pilot program for two years.

This project was made successful with the help of the following:

- Virginia Beach Hotel Association (VBHA), especially Executive Director Diana Burke who went above and beyond to connect us with many hotel owners and managers. Her enthusiasm for this program helped to create a partnership that became invaluable to this CLPP. Also, VBHA Administrative Assistant Deb Buringa and the VBHA Community Relations Committee
- The Virginia Beach hotel and restaurant managers and staff who were passionate about keeping our beaches clean and safe including:
 - Schooner Inn
 - Oceanfront Inn
 - The Breakers
 - Boardwalk Resort
 - The Capes Hotel
 - Comfort Inn & Suites Oceanfront
 - Holiday Inn Oceanside
 - Holiday Inn Express
 - EconoLodge Oceanfront
 - Ocean Sands Resort
 - Comfort Suites Beachfront
 - Virginia Beach Resort Hotel
 - Days Inn at the Beach
 - Hampton Inn North
 - Belvedere Hotel
 - Best Western Plus Oceanfront
 - Oceanfront Inn
 - Wyndham Virginia Beach
 - Jumpin' Shrimp
 - Travelodge Suites
 - Springhill Suites
 - Ocean Key Resort
 - Super 8
 - Travelodge
 - The Atrium
 - Ocean House Restaurant
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- Chuck Applebach and Tiffany Russell of the Virginia Beach Convention and Visitors Bureau
- Laura Habr and the Virginia Beach Resort Advisory Commission G.R.E.E.N. (Green Resort Eco-Friendly Efficient Neighbors) Committee
- City of Virginia Beach Resort Advisory Commission (R.A.C.)
- Tom Griffin and Virginia Green Travel
- J.D. Villegas and Glasdon, Inc.
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Executive Summary

Cigarette butt litter is the most common type of litter in Virginia, in the USA and in the world according to data collected by volunteers during the International Coastal Cleanup.¹ In 2015 and 2016, Clean Virginia Waterways of Longwood University received grants from Keep America Beautiful's (KAB) Cigarette Litter Prevention Program to reduce cigarette litter pollution in the resort area of Virginia Beach. During this two year period, Clean Virginia Waterways (CVW) targeted a "temporary population:" beach visitors. CVW's goal was to educate them about the significance of cigarette litter, reach them with litter-prevention messages, and provide ash receptacles in key locations. Pocket ashtrays were also offered to smokers as they checked into hotels.

In addition to the two Cigarette Litter Prevention Program (CLPP) grants from Keep America Beautiful, this project was supported by Clean Virginia Waterways, volunteers from Surfrider Foundation, Virginia Beach Chapter, the U.S. Navy, Longwood University and many partners including: Virginia Beach Hotel Association (VBHA); Surfrider Foundation, Virginia Beach Chapter; and the City of Virginia Beach. CVW found the city, the VBHA, and the managers of individual hotels and restaurants to be very enthusiastic about reducing the amount of cigarette litter around their properties. Partners in the hospitality industry contributed by displaying educational signage, engaging their staff, distributing pocket ashtrays to customers and maintaining the cigarette receptacles provided to them. The City of Virginia Beach assisted by permitting us to place cigarette butt receptacles on the Virginia Beach boardwalk. The City also provided graphics from a "Clean Beaches" campaign that was under development.

Through this innovative two-year pilot project, 24 hotels and two restaurants participated in educating beach visitors about cigarette litter and providing receptacles and pocket ashtrays. Our conservative estimate is that no fewer than 270,000 cigarette butts were disposed of in the ash receptacles at the participating hotels during the summer of 2016.

The collaboration and enthusiasm from the hospitality industry indicates that this program has the potential not only to help keep Virginia Beach clean, but could be replicated in other coastal communities in Virginia, in mid-Atlantic states, and in other states on the U.S. east coast. This report summarizes how CVW and its partners planned and executed the KAB Cigarette Litter Prevention Program in the Virginia Beach resort area, and the results. We also offer advice for other beach communities that are interested in reaching visitors with cigarette litter prevention messages and infrastructure (including ash receptacles).

¹ Ocean Conservancy. 2016. <http://www.oceanconservancy.org/our-work/international-coastal-cleanup/2016-ocean-trash-index.html>

BACKGROUND & GOALS OF THIS UNIQUE CLPP

Keep America Beautiful's Cigarette Litter Prevention Program

Recognizing that cigarette butts are the most commonly found type of litter in the United States based on data from the International Coastal Cleanup², Keep America Beautiful (KAB) undertook extensive research as it developed its Cigarette Litter Prevention Program.

According to the American Legacy Foundation, in the past decade, cigarette smoking in America has decreased 28%, yet cigarette butts remain the most littered item in the U.S. and across the globe. KAB found that "...the overall littering rate for cigarette butts is 65%, and tobacco products comprise 38% of all U.S. roadway litter."

KAB research states, "...for every additional ash receptacle, the littering rate for cigarette butts decreases by 9%. Cigarette butt littering is also attributable to individual motivations; for example, 77% of individuals in a survey stated they did not consider cigarette butts as litter."²

Funding for KAB's research and annual grants to nonprofit partners comes from Altria with additional support from RAI Services Company and Santa Fe Natural Tobacco Company. The CLPP is now entering its 15th year and has been implemented in more than 1,700 U.S. communities.

According to KAB, an effective local Cigarette Litter Prevention Program includes four proven, field-tested solutions or strategies for reducing cigarette butt litter:

- Encourage enforcement of litter laws, including cigarette litter;
- Raise awareness about the issue using public service messages;
- Place ash receptacles at transition points (the area where most cigarette butt littering happens) such as entrances to public buildings;
- Distribute pocket or portable ashtrays to adult smokers.³

Transition points are areas where a smoker must extinguish a cigarette before proceeding, such as outside retail stores, restaurants, bars, hotels, office buildings, before entering beaches, parks or other recreation areas, and at roadside rest areas, parking lots, bus shelters and train platforms. Most cigarette butt littering happens at these areas.

Virginia Litter Law can be found in Appendix I.

² Ocean Conservancy. 2016. <http://www.oceanconservancy.org/our-work/international-coastal-cleanup/2016-ocean-trash-index.html>

³ Keep America Beautiful. <https://www.kab.org/cigarette-litter-prevention>

The Virginia Beach Resort CLPP

Prior to submitting a proposal to KAB's Cigarette Litter Prevention Program (CLPP) grant, Clean Virginia Waterways' (CVW) staff held discussions with KAB staff about our mutual interests in reaching a unique population of people: beach visitors.

This project had additional goals:

- To create a program that has the potential to grow and become an effective and permanent program to reduce cigarette litter in Virginia Beach;
- To build and strengthen the partnerships between Clean Virginia Waterways and the hotel and restaurant managers of Virginia Beach;
- To create a transferable program that can be implemented in other coastal communities.

Clean Virginia Waterways of Longwood University

Clean Virginia Waterways (CVW) is a statewide nonprofit organization which has as its mission "To enhance the health of Virginia's water resources through pollution prevention, education, and stewardship activities involving Virginians from the classroom to the boardroom."

CVW is affiliated with Longwood University in Farmville, Virginia, and the Ocean Conservancy. Since 1995, CVW has conducted research on several marine debris topics, and has coordinated the International Coastal Cleanup (ICC) in Virginia. Since 1995, more than 98,000 volunteers have removed 4.2 million pounds of litter and debris from Virginia's waterways and beaches during the ICC in Virginia.

CVW pioneered research about the #1 type of litter on Earth: cigarette butts. In the August 2000 issue of the American Littoral Society journal, *The Underwater Naturalist*, CVW's Executive Director, Kathleen M. Register, shared the results of her Master's thesis that examined the impact of cigarette butt litter on the environment. The article, entitled "*Cigarette Butts as Litter: Toxic as Well as Ugly*" includes background data, such as the fact that more than 2 billion pounds of cigarette filters are discarded worldwide annually, along with results of her research showing that leached chemicals from cigarette filters are deadly to the water flea *Daphnia magna*, a small crustacean important to the aquatic food chain⁴. This pioneering research led to Kathleen serving as a consultant to KAB as it created its Cigarette Litter Prevention Program. Kathleen has presented extensively on this topic, including at KAB's annual conference. Kathleen served on the Keep Virginia Beautiful Revitalization Team in 2008-2010, and was the lead author of the Virginia Marine Debris Reduction Plan⁵.

Christina Trapani served as the primary "on-the-ground" director of this CLPP project. She is a marine debris researcher, a commissioner for the Virginia Beach Clean Community Commission and was involved in the development of the new KAB affiliate, Keep Virginia Beach Beautiful. She also assisted in a cigarette litter prevention project with the Virginia Aquarium & Marine Science Center that was partially funded by Keep Virginia Beautiful.

About the Virginia Beach Resort Area

Virginia Beach prides itself as being known as one of the cleanest beaches on the East Coast and spends considerable resources to ensure that reputation continues⁶. According to the Virginia Beach Convention and Visitor's Bureau, Virginia Beach attracted nearly 6.4 million overnight visitors and 7.5 million day visitors in 2015. It is also the most populous city in Virginia with more than 445,000 year-round residents⁷.

4 American Littoral Society, 2000. *Cigarette Butts as Litter: Toxic as Well as Ugly*. <http://www.longwood.edu/cleanva/ciglitterarticle.htm>

5 Clean Virginia Waterways, Virginia Marine Debris Reduction Plan. <http://www.longwood.edu/cleanva/MarineDebrisPlan.html>

6 Beck, J. Report: Va. Beach waters among nation's cleanest. (http://pilotonline.com/news/local/environment/report-va-beach-waters-among-nation-s-cleanest/article_4f74b157-5045-515f-8a01-5bcd2861b572.html)

7 VA Beach Convention and Visitors Bureau. <http://www.visitvirginiabeach.com/about-us/connect/research/>

Because Virginia Beach borders both the Atlantic Ocean and Chesapeake Bay, it offers approximately 35 miles of coastline—including the Bayfront community, military bases, the residential North End, Croatan and Sandbridge Beaches, two State parks, a National Wildlife Refuge and the three-mile resort strip at the Oceanfront. Recommended activities for visitors include outdoor recreation, enjoying natural park areas and beach activities. Virginia Beach is also home to several military bases including Dam Neck Fleet Training Center and Joint Expeditionary Base--Ft. Story (see Figure 1).



Figure 1. An overview of the Virginia Beach bay and beach shorelines.

The Virginia Beach Oceanfront with its boardwalk was selected as the target area that CVW would focus on for this pilot program. The Virginia Beach boardwalk extends three miles from Rudee Inlet north to 42nd Street. Along the boardwalk there are approximately 50 hotels, several restaurants, two museums, four concert stages, a fishing pier, a bike path and a beach access at almost every block.

The Virginia Beach Oceanfront’s Atlantic Avenue runs parallel to the boardwalk. Almost every block has an access from Atlantic Avenue to the boardwalk. The boardwalk consists of a wide walking area and a bike path. Each block of the boardwalk in the summer has at least two trash cans in the area between the boardwalk and bike path. Each block of boardwalk has a beach access with steps and a ramp leading to the beach. Four trash cans and two recycle bins are located at the bottom of the steps. At least 16 trash cans (two groups of eight) are located in the middle of the beach between the steps and water on each block.

The Need for Preventing Cigarette Litter

In 2009, Virginia Governor Tim Kaine signed into law a workplace smoking ban that included all bars and restaurants. As found in other states with indoor workplace smoking bans, the unintended consequence of this legislation was removing the ashtrays from smokers and sending smokers outside where limited receptacles exist.

Clean Virginia Waterways of Longwood University organizes an annual statewide cleanup event of streams, rivers, bays, and coastal waters throughout Virginia that is called the Virginia Waterways Cleanup (part of the Ocean Conservancy’s International Coastal Cleanup). Cigarette butts are the most common type of litter picked up during this annual event. As a result of these events, more than 4.2 million pounds of litter and debris have been removed from Virginia’s waterways from 1995 through 2016. In 2015, more than 30,000 cigarette butts were reported by ICC volunteers (see Table 1).

While there are trash cans on each block of Atlantic Avenue (the street that parallels the beach), the boardwalk, and on the beach, cigarette butt litter is a very prominent form of litter at the Virginia Beach Oceanfront. In October 2014, Surfrider Foundation, Virginia Beach Chapter, conducted a cigarette butt cleanup of approximately eight blocks of the Virginia Beach boardwalk and Atlantic Avenue; 3,791

Rank	Item	Number found	Percentage of total litter found
1	Cigarette Butts	30,195	22.71%
2	Food Wrappers (candy, chips, etc.)	14,151	10.65%
3	Beverage Bottles (Glass)	13,977	10.51%
4	Beverage Bottles (Plastic)	13,330	10.03%
5	Beverage Cans	7,954	5.98%
6	Grocery Bags (Plastic)	7,836	5.89%
7	Other Plastic Bags	7,548	5.68%
8	Bottle caps (Plastic)	5,641	4.24%
9	Straws, Stirrers	3,840	2.89%
10	Plastic/Foam Packaging	3,412	2.57%

Table 1. In the state of Virginia, cigarette butts top the list of items recorded by volunteers during the International Coastal Cleanup in 2015. (Source: <http://archive.coastalcleanupdata.org>)

Rank	Item	Number found	Percentage of total litter found
1	Cigarette Butts	14,309	58.51%
2	Food Wrappers (candy, chips, etc.)	1,386	5.67%
3	Beverage Bottles (Plastic)	1,257	5.14%
4	Bottle Caps (Plastic)	1,004	4.11%
5	Beverage Cans	692	2.83%
6	Straws, Stirrers	603	2.47%
7	Beverage Bottles (Glass)	536	2.19%
8	Grocery Bags (Plastic)	404	1.65%
9	Other Plastic Bags	386	1.58%
10	Balloons	336	1.37%

Table 2. Cigarette butts top the list of items recorded by volunteers during the International Coastal Cleanup in Virginia Beach, 2015 (source: <http://archive.coastalcleanupdata.org>).

discount for KAB projects, Glasdon Inc. donated an Ashguard, Ashmount SG and a steel plate in 2015, valued at \$462 and paid for shipping of all items for both years. In 2016, VSA Resorts purchased 2,000 custom pocket ashtrays for their guests. Surfrider Foundation, Virginia Beach Chapter, also purchased 800 pocket ashtrays to distribute during their public outreach events. In 2016, Surfrider Foundation, Virginia Beach Chapter, also contributed \$560 for the purchase of advertising in the beach trolleys and purchased four Ashguard SGs that will be used at special events. The CVB paid \$980 for large stickers that were placed on beach trash cans.

cigarette butts were documented in that brief distance. Data collected during the ICC confirmed that cigarette butt litter is the most prominent form of litter on the beaches, boardwalk and sidewalks of Virginia Beach (see Table 2).

What Was Unique About This CLPP

This unique program targeted beach visitors in an area where the population is inconsistent and temporary, creating the challenge of reaching these visitors quickly and effectively, yet in a positive manner so as not to discourage interest. CVW partnered with the hotel industry to reach beach visitors in the most efficient way possible.

Financial and In-kind Support

Over the two year project, Clean Virginia Waterways received two \$10,000 CLPP grants. Fifty percent of the grant money (\$10,000) was spent on ash receptacles. The balance of \$10,000 was spent on developing and printing educational materials, custom pocket ashtrays, and funding a Project Coordinator for 180 hours of work. As the scope of our project expanded, KAB awarded an additional \$2,500 to CVW in order to continue work into the spring of 2017, and to write a more extensive report about this unique pilot program in the hopes our “lessons learned” can assist other coastal communities implement similar programs.

In-kind support of this program included 10,600 pocket ashtrays from KAB, poster/coaster graphics (donated by CVB to the VBHA who in turn donated them to CVW for this project), 152 volunteer hours (scans and placing educational materials), and approximately 170 hours of time by CVW staff. In addition to their normal

METHODS AND MATERIALS

Getting Started

CVW hired a Project Coordinator, Virginia Beach resident Christina Trapani, to build this program through networking and partnerships. We discussed many possible ways to reach beach visitors, but given our limited resources of time and funding, we decided to partner with existing groups as much as possible to more effectively reach day and night visitors.

Our strategy for this CLPP was to educate beach visitors about cigarette butts as litter and provide them with the means to properly dispose of cigarette litter. CVW staff employed the following tactics as we undertook this CLPP:

- Form partnerships with pre-existing groups and associations;
- Recruit hotel participants and identify transition areas on their properties;
- Create a clear, consistent and positive message to be used by the City and the CLPP partners for cleaner beaches and water;
- Distribute educational materials, pocket ashtrays and receptacles.

Forming Partnerships

Since our project was focused on reaching beach visitors, forming a partnership with the Virginia Beach Hotel Association (VBHA) to reach an existing network was our first priority. Because we began this relationship while writing our first grant proposal, the VBHA was able to contribute a letter of support for this project and also invited us to attend their Community Relations Committee meetings as well as their general meetings to solicit for participants and ideas. They passed on information regarding the project through emails and newsletters. The Executive Director even made several phone calls to members to help recruit them into the project.

Additional valuable partnerships within the tourism and hospitality community were formed with the Virginia Beach Resort Management Office, Virginia Green Travel and the Virginia Beach Convention and Visitor's Bureau (CVB). Each partner played a crucial role in assuring the success of the program (Figure 2).

We worked with various departments within the City of Virginia Beach to implement the program. The Resort Management office assisted with permitting and placement of boardwalk receptacles. Because these receptacles were to be placed on City property, City Council approval was required. In 2015, five receptacles were placed between 20th and 24th Streets, the busiest blocks of the boardwalk, from June 1st to September 7th. In 2016, an additional five receptacles were placed and the time frame for them being on the boardwalk was extended to April 1st to October 31st.



Figure 2. Receptacles are placed on the Virginia Beach boardwalk with the help of Resort Manager, Mike Eason. (Photo credit: Kathy O'Hara)

In 2015, the Virginia Beach Resort Advisory Commission's G.R.E.E.N. (Green Resort Eco-Friendly Efficient Neighbors) Committee was beginning work on a "Clean Beaches" program. To maintain a clear and consistent message among all litter prevention projects at the beach, CVW partnered with the VBHA, G.R.E.E.N. Committee and the CVB to create that message. The CVB's marketing firm used suggestions by this team to create a simple and positive message,

along with graphics, that could be used for both the CLPP and the “Clean Beaches” program.

Our second priority was to identify a group of volunteers who could assist with the litter scans and receptacle maintenance. We partnered with the Virginia Beach chapter of Surfrider Foundation and a group from a local Navy base. (In 2017, Surfrider Foundation is taking the lead on sustaining the program). Following rules from KAB, no volunteers under the age of 18 were allowed to participate.

Working with Hotels Through the VBHA

The VBHA became our greatest asset for this project, providing both an existing network of potential participants and guidance for reaching out to and working with beach hotels. It was important to make participation simple for managers and staff. An information sheet was created and distributed at VBHA meetings as well as via their email list (Appendix II). This sheet included information on the program itself, the requirements requested by CVW (place receptacles at transition areas, educate staff, etc.), receptacle information and contact information. Hotel managers were invited to sign up until we ran out of available receptacles. In addition, CVW requested that hotels provide ash receptacles (at their own expense) for their staff who smoke. Usually these staff smoking areas were in an out-of-view area, but generated quite a lot of cigarette litter. We recommended that a bucket with sand would suffice for those properties that did not want to invest in a receptacle, as long as it was maintained. We often received complaints from hotels about their neighboring hotels not allowing staff to smoke on property, so staff moved to neighboring hotels to smoke, often littering their butts.

Our focus for recruiting hotels in 2015 was the boardwalk area between 20th and 24th Streets, and that was where the boardwalk receptacles were placed. Several hotels outside of this area also asked to participate, including a hotel on the Chesapeake Bayfront and a hotel on the north end of the beach at 57th Street (Fig. 3). Even though these hotels were outside of our project target area, we were delighted by their enthusiastic participation. In 2016, we expanded the project area to 15th to 24th Streets (Figure 4).

Each hotel was given a receptacle, 200-400 pocket ashtrays to start and educational signage including 11” x 17” posters, 8.5” x 11” flyers and 5” x 7” framed signs for the front desk. The hotel was responsible for placing the receptacle and educational signage by June 1st. Many hotels displayed educational signs in areas around their properties such as at the front desk, in the elevators, in the guest welcome binders, on doors and in the lobby and/or restaurant area. Most receptacles were placed at the entrances on the beach side of their properties.

In 2015, we distributed 10,000 coasters with educational messaging to the hotels that had bar/restaurants in them.

Over the course of the two-year project, we worked with 24 hotels, many of which



Figure 3. Locations of participating hotels and boardwalk receptacles in 2015.



Figure 4. Receptacles and participating hotels in 2016. Two hotels north of the boardwalk are not shown here.

were “Virginia Green” certified.⁸ These hotels have already committed to meeting certain sustainability requirements such as recycling, water and energy conservation and optional linen service.

We worked with the hotels to identify the transition areas on their properties that were in need of ash receptacles and to provide them with the materials that were best suited for their property.

Hotels participated with different levels of enthusiasm and implementation. Some hotels placed their receptacle but were not very active in distributing pocket ashtrays or displaying signs. To the other extreme, some hotels placed their receptacles, distributed several cases of pocket ashtrays and are eager to continue their participation.

Measuring Impacts

In order to measure the impacts of this pilot program, cigarette litter scans were performed before, during and after the public education materials were put in place (Appendix III).

In 2015, we decided to scan multiple areas, multiple times to try to compare litter density in various locations. We did an initial scan to clear the areas of all cigarette litter and, at two week intervals, did two pre-implementation scans and two post-implementation scans. We then did two more post-installation scans at monthly intervals.

- 1st Street: This area did not include any receptacles or participating hotels and was considered a control scan.
- 22nd Street: This area had several surrounding participating hotels and a boardwalk receptacle.
- 36th Street: This area was out of the focus area with one participating hotel and no boardwalk receptacles. The participating hotel had three mini-ashmounts on the property.
- 57th Street: This area was separate from the boardwalk project and about a mile north of boardwalk. They had an Ashguard SG on their beach access and a mini-ashmount near a bench that was frequently used by smokers and heavily littered.

In 2016, we chose to scan one area that had been scanned in 2015 for comparison (22nd Street) and one new area with a new hotel participant and a boardwalk receptacle (16th Street). In 2016, one pre-implementation scan was done in May and a follow up scan was done in August.

These litter scans are a required and important part of the KAB CLPP.

⁸ Virginia Green Lodging. <http://www.deq.virginia.gov/Programs/PollutionPrevention/VirginiaGreen/GreenLodging.aspx>

MATERIALS USED

Cigarette Ash Receptacles

Keep America Beautiful has partnered with several cigarette receptacle manufacturers who offer a discount to those implementing a CLPP. We chose Glasdon, Inc. as they are located in Virginia, make a great product and have been supportive of some of our other initiatives and projects⁹.

We used three different receptacles in this project: Ashguard SG (3,500 butts) with and without the steel plate; Ashmount SG (1,000 butts) wall mount and the Mini-Ashmount. We gave the hotels the option to choose their receptacle, and most chose the Ashguard SG. The Ashguard SGs were used and fitted with a steel plate for placement on the boardwalk as the City did not want permanent placement. Five Ashguard SGs were installed on the boardwalk in 2015 and an additional five in 2016. A total of 17 ash receptacles were installed at 12 hotels during 2015 and 16 receptacles were installed at 12 hotels and two restaurants in 2016 (Figure 5). A total of 42 receptacles were placed during the two-year project (one hotel that participated in 2015 became a non-smoking property in 2016. Their receptacle was placed with another property in 2016).

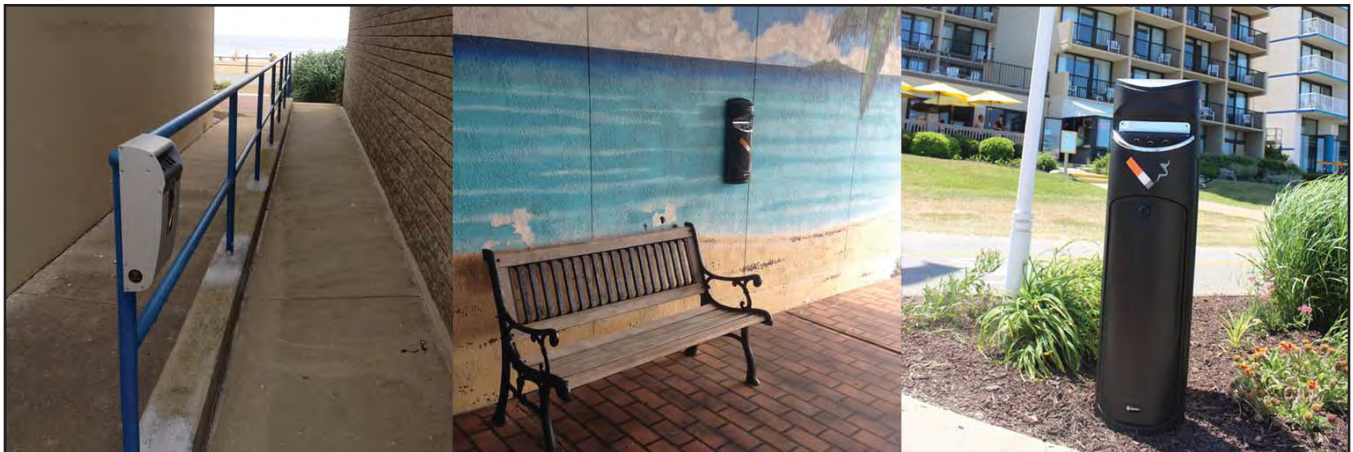


Figure 5. (From left to right) Glasdon receptacles: mini-Ashmount, Ashmount SG, Ashguard SG

Receptacle Placement – Hotels

Hotels were given one or two cigarette butt receptacles to be placed on their property at transition areas, usually the hotel's entrance from the beach. We did not provide the steel plates, so hotel maintenance staff were tasked with permanent placement. Hotels were also tasked with receptacle maintenance which mainly meant emptying them. Most hotels placed their receptacles at the beach-side entrance and permanently affixed them to the concrete or the ground (Figure 6).

A few hotels chose to place their receptacle on the Atlantic Avenue side of their hotel stating that was where most of the cigarette litter was being found. Two hotels placed their receptacle by their pool claiming this was their biggest problem area.

Three hotels placed the receptacles within their restaurant patio areas. In one case, the entrance to the restaurant was the same as the beach-side entrance to the hotel. In another

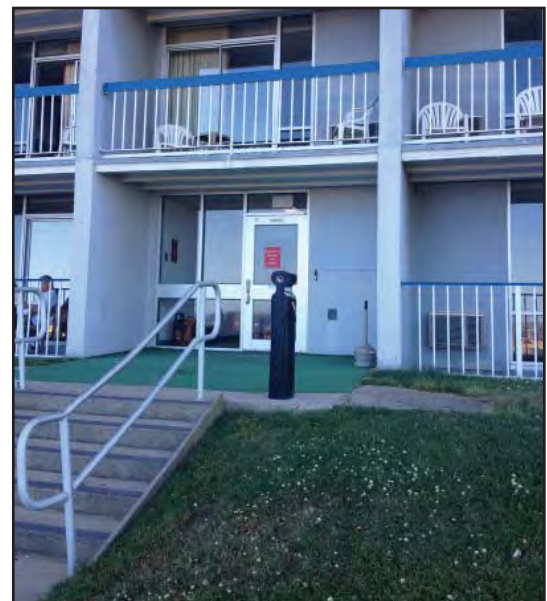


Figure 6. An Ashguard SG at the beach-side entrance of a participating hotel.

⁹ Glasdon, Inc. <https://us.glasdon.com/>

case, the restaurant was the participant and the receptacle had to stay within the restaurant (and not on hotel property). One hotel was given three mini-ashmounts rather than the large receptacle. They placed one by their pool (Figure 7), one near their restaurant entrance and one at the staff smoking area. They were a non-smoking hotel and believed most of their cigarette litter was left by restaurant patrons. The area around this hotel was a scan site in 2015.

Posters

We printed posters in two sizes, 8.5" x 11" and 11" x 17" for distribution to participating hotels. Posters were placed in elevators, by entranceway doors, framed and hung in hallways, or framed and randomly placed throughout hotels. One hotel copied the 8.5" x 11" size for placement in their room guides. Smaller 5" x 7" framed signs were also distributed to hotels for the front desks. The messaging was kept simple and focused on cigarette litter but also mentioned all litter (Figure 8, Appendix IV).

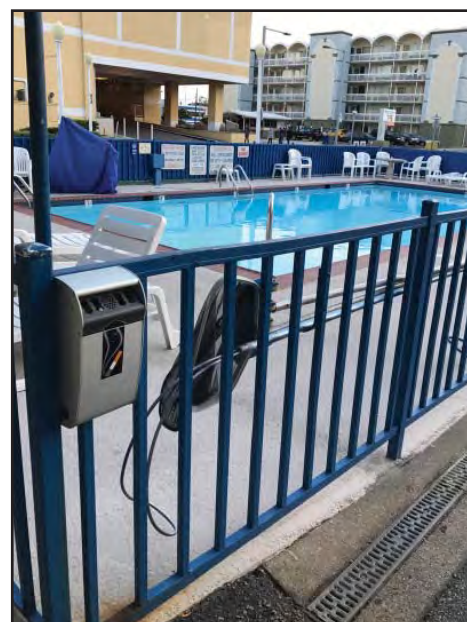


Figure 7. A mini-Ashmount outside of a hotel pool.



Figure 8. A framed informational flyer and rack cards at the front desk.

Coasters

In 2015, we printed 10,000 3" x 3" recycled paper coasters with the "Thanks for Not Littering" designs and distributed 1,000 to 1,500 each to hotels with restaurants. One bar manager asked if he could get 10,000 more (Appendix IV).

Trolley Signs

In 2016, we placed litter prevention messaging in all of the trolleys that run May through October, and are an inexpensive way for beach visitors to get around the Boardwalk, Virginia Aquarium, campgrounds, a waterpark, and shopping locations. Each trolley bus had two different graphics, one was about litter in general and the other one focused on cigarette litter. The posters were placed on the trolleys in July and stayed on the busses through the end of September. We partnered with Surfrider Foundation,

Virginia Beach Chapter, to assist with paying for these advertisements (Figure 9).

Rack Cards

In 2016, we printed 5,000 rack cards with litter prevention tips on one side and a request for survey participation along with partner logos on the other side (Appendix IV). About 3,000 rack cards were distributed to participating hotels and to the VBHA office. While no surveys were completed, we did get feedback from some hotels that they ran out of rack cards or that they put the rack cards in each room. One hotel placed a pocket ashtray and rack card in their smoking rooms for arriving guests. We did put a deadline date on the rack card for the survey as we were offering a random drawing for prizes to those who participated. This is problematic for the leftover rack cards as they are now dated and unusable (Appendix IV).



Figure 9. An educational poster inside of a beach trolley.

Pocket Ashtrays

KAB provided 5,600 pocket ashtrays in 2015, and another 5,000 in 2016. Each hotel was given 200 to 400 pocket ashtrays to distribute to their guests to use while on the beach. Hotel participants were asked not to place the pocket ashtrays in places that guests could have free access to them, but instead only to distribute them upon request. We provided signs to be displayed on hotel registration desks to make visitors aware of these free pocket ashtrays. Several hotel staff also mentioned that they would distribute them to guests who were smokers (i.e., they smelled of smoke or were seen smoking outside).



Figure 10. Custom printed pocket ashtrays.

An additional 4,000 pocket ashtrays were ordered with a Virginia Beach-specific message printed on them (Figure 10). One property management group, VSA Resorts, who has three resort properties participating in the CLPP, purchased 2,000 of these ashtrays for their properties. CVW purchased and distributed 1,200 for the CLPP and Surfriider Foundation purchased an additional 800 that they will be using to hand out at events in 2017.

Stickers for Receptacles

Approximately 4,000 cigarette butts were collected in the five boardwalk receptacles during the first two months of the Virginia Beach CLPP (June and July 2015). At the end of July 2015, 11" x 11" stickers with the "Keep It Beachy Clean" theme were placed on beach trash cans as well as the boardwalk

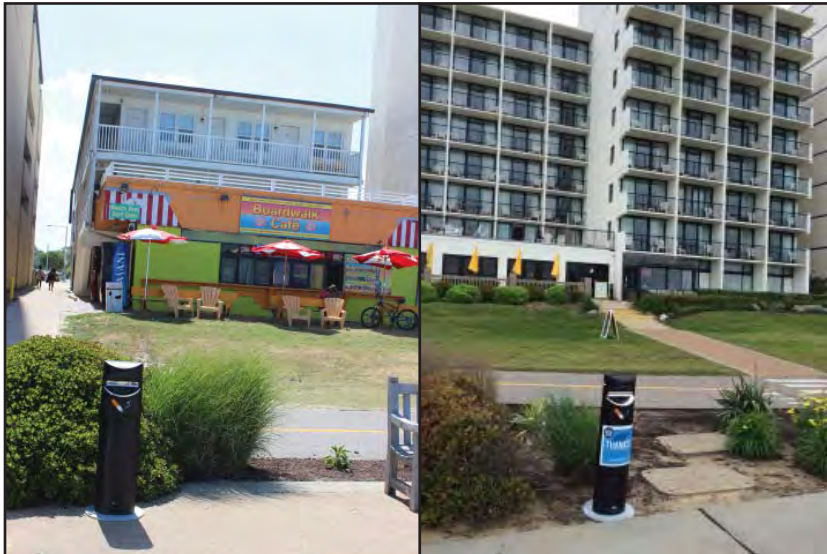


Figure 11. Boardwalk receptacles before and after stickers were added.

receptacles. Approximately 4,000 cigarette butts were then collected in the receptacles for the month of August (Figure 11).

In 2016, all of the boardwalk receptacles were outfitted with the stickers and most of the participating hotels were given a sticker for their receptacle to place at their discretion. Some of the hotels are not allowed to display the graphics due to branding restrictions.

Receptacle Maintenance

Participating hotels were tasked with receptacle maintenance on their property. They were also tasked with keeping track of times receptacles were emptied and about how

many cigarette butts were in the receptacles each time (based on how full the receptacle was). Our agreement with the City stated that CVW staff and volunteers would maintain all receptacles placed on the boardwalk.

Cigarette Butt Log

Participating hotels were provided with a cigarette butt log to try to capture the number of butts being placed in their receptacles. We were unable to determine to what degree these butt logs were used (Appendix IV).

Social Media

CVW created a CLPP-Virginia Beach Facebook page (<https://www.facebook.com/CigaretteLitterPreventionVB/>) and web page on the CVW website (<http://www.longwood.edu/cleanva/beachyclean.html>) to keep volunteers informed. Surfrider Foundation, Virginia Beach Chapter, also created a page on their website (<https://vb.surfrider.org/>) about participating in the program. Partners including CVW, Surfrider Foundation, and the VBHA used their Facebook accounts to draw attention to the program.

Media and Outreach

KAB was credited as the main funding source in all media activities. Aspects of this program were presented at the EPA Region III Volunteer Water Monitoring Conference, a NOAA Marine Debris Reduction Workshop for Mid-Atlantic states, the 2nd Virginia Marine Debris Summit and the Hampton Roads Alliance for Environmental Education.

T-shirts for Volunteers

Volunteers were given a “Butt Busters” t-shirt for litter scans. The t-shirts were designed after volunteers received many questions about our beach cleanup activities.

Recycling Cigarette Butts

In 2015, most cigarette butts collected during scans and from the boardwalk receptacles were saved and stored for recycling with Terracycle. In November 2015, an estimated 15,350 cigarette butts, weighing approximately 20 pounds, were shipped to Terracycle for recycling. Many cigarette butts had to be thrown away due to rainwater entering the receptacles. In 2016, cigarettes from the boardwalk receptacles were found to be mostly wet from rain water and were not recycled.

RESULTS

We measured impacts of this program through use of ash receptacles, litter scans, and input from participating hotels and restaurants.

Use of Boardwalk Receptacles

In 2015, we estimate that 4,000 cigarette butts were collected from the boardwalk receptacles during the months of June and July. Bright blue “Beachy Clean” stickers were placed on the receptacles on July 29th and an additional 4,000 butts were collected in the month of August through September 7th. In total, these 5 receptacles collected approximately 8,000 butts in three months. This translates to 533 butts per receptacle per month.

- In 2016, we estimate that the ten boardwalk receptacles collected 38,000 cigarette butts from May 4th to October 31st. This translates to 663 butts per receptacle per month.
- In 2015, one of the receptacles was stolen during a big event on the boardwalk.
- In 2016, the receptacles were left on the boardwalk during a storm that surprisingly produced hurricane force winds. All receptacles remained in place and intact.
- To prevent water from collecting in the Ashguard SG, care must be taken during assembly to allow for drainage holes.
- The Glasdon, Inc. receptacles are very easy to empty and maintain. After 2016, all units were pressure washed inside and out for winter storage (Figure 12).
- During the winter months, hotels were more than willing to keep and maintain the boardwalk receptacles on their properties.
- It is our conclusion that the brightly colored stickers placed on the receptacles helped them to stand out to beach visitors, therefore more effectively encouraging their use.



Figure 12. The receptacles are removed from the boardwalk (left) and washed (right) before being delivered to hotels for the winter.

- Anecdotally, according to City of Virginia Beach employees, there were fewer cigarette butts on the boardwalk where the receptacles were located as compared to portions of the boardwalk that did not have the receptacles. We also heard from residents of Virginia Beach that were impressed by the presence of receptacles on the boardwalk.

2015 Litter Scans

In 2015, we set up four scan sites to compare across the resort area including one control site where no receptacles were present. Three scans were conducted before program implementation and four more scans were conducted post implementation. See Appendix V for raw data. About 75 adult volunteers from Surfrider Foundation, the U.S. Navy and others conducted seven litter scans contributing approximately 140 volunteer hours. 14,832 cigarette butts were collected off of the designated beach, boardwalk and beach access sites during the litter scans.

2016 Litter Scans

In 2016, we decided to decrease the number of scan areas and the number of times we scanned them to see if we could discern a more noticeable change pre- and post-installation. As the project had expanded, we chose to scan one area that was part of the 2015 project. The second scan area consisted of an area with a new boardwalk receptacle and an additional participating hotel. We conducted one pre-scan and one post-scan.

Comparing Data From the Scans

With two years of data (2015 and 2016), we can compare a few of the scans over almost the same dates. The scan done on the beach and beach access by 57th Street in May 2015 revealed 560 cigarette butts. A year later, 376 cigarette butts were found in the same area, a decrease of 33% (Figure 13). Similarly, the scan done on the 22nd Street beach and the boardwalk showed that cigarette butt litter decreased from 833 items in May 2015 to 268 items in 2016—a decrease of 68%.

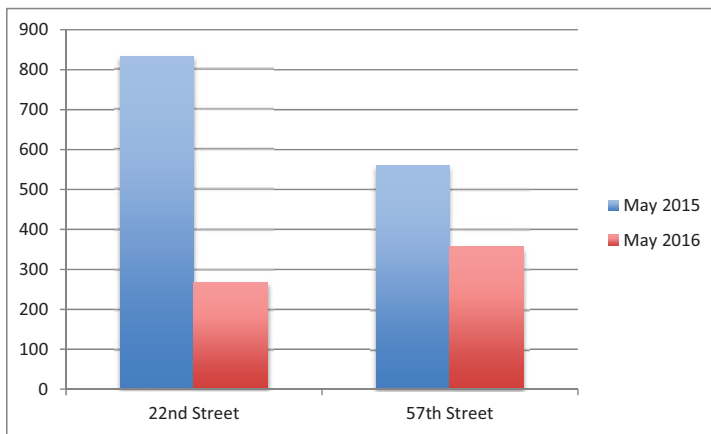


Figure 13. Litter scans at 57th Street showed a 33% decrease in cigarette butt litter from May 2015 to May 2016. On 22nd Street, cigarette butt litter decreased by 68% in the same time frame.

More visitors = more butts

Data from the litter scans show that the increase of summer beach visitors corresponds to an increase in cigarette litter. According to the Virginia Beach Convention and Visitor's Bureau, visitor numbers in the summer months are approximately 37% higher than in the spring (Figure 14). Each location that we were able to collect data in May and again in August, showed an increase in cigarette litter (Figures 15 & 16). For example, cigarette litter more than doubled between May and August at three scan sites: 16th Street (increased by 247%), 22nd Street (increased by 225%), and 36th Street (increased by 212%).

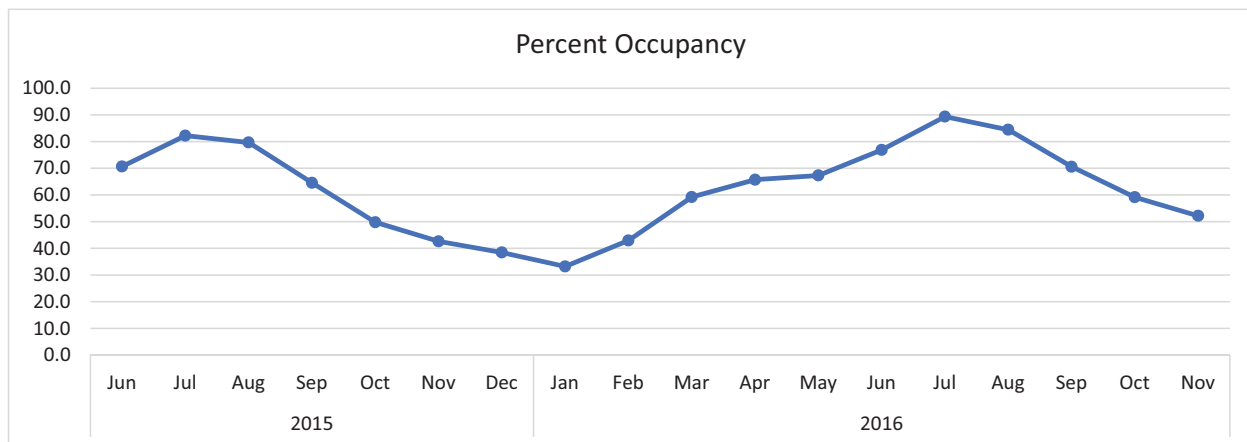


Figure 14. This chart shows the percentage of rooms occupied over 18 months in Virginia Beach (June, 2015-November, 2016). This clearly demonstrates a significant increase in population over the summer months. Data provided by Virginia Beach Convention and Visitor's Bureau.

Location of Scan	May	August	% change
16th Street, 2016	233	575	247%
22nd Street, 2015	833	910	109%
22nd Street, 2016	268	602	225%
36th Street, 2015	340	720	212%
57th Street, 2015	1655	2185	132%

Figure 15. Litter scan data show that the number of cigarette butts increased along with the increase in beach visitors in both 2015 and 2016.

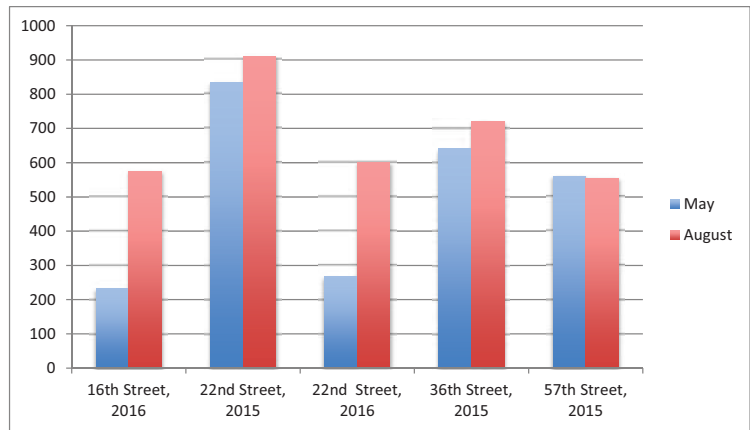


Figure 16. Cigarette litter increased along with the increase in beach visitors in both 2015 and 2016 according to data collected during litter scans done in May and August of each year.

Input From Hotel Managers

According to the managers of participating hotels, cigarette butts were markedly less littered on and around hotel properties during the 2015 and 2016 pilot program. Sixty percent of managers interviewed “strongly agreed” with the statement “This project helped to reduce the amount of cigarette litter on our property” while 40% somewhat agreed with this statement. Two managers mentioned that smokers stopped using hotel flowerpots as ashtrays. According to our survey of hotel managers, participating hotels emptied the ash receptacles weekly or every other week, and they were $\frac{1}{4}$ to $\frac{1}{2}$ full each time (note: the floor-mounted receptacles hold approximately 3500 butts when full). Our conservative estimate is that no fewer than 270,000 cigarette butts were disposed of in the ash receptacles at the participating hotels during the summer of 2016. The vast majority (80%) of hotel managers rated the ash receptacles as “very effective and useful”. One hundred percent of the managers said that they benefited from participating in this project and would recommend it to other hotels.

During post-project surveys, hotel managers indicated they found the cigarette butt receptacles to be attractive, appropriately sized, good quality and noticeable.

“The receptacles had a great look-very contemporary and modern on our older building. We loved them.”

“Great fit for Va. Beach Oceanfront”

“The wall mounted ash receptacle held up well, and this is a tough environment. Smokers used it, so they noticed it!”

Hotel managers, on average, also gave mostly positive feedback on the pocket ashtrays, although some hotels were more aggressive about handing them out. One hotel made a special effort to ask smokers to use the pocket ashtrays when smoking on balconies so that littered cigarette butts would not burn holes in the large awning that covered the restaurant deck below. In 2015, several hotels ran out of their first case of 200 within the first month.

“We could not keep those things in stock, the guests loved them--especially in the restaurant.”

“Pocket Ashtrays were GREAT. Smokers used them on balconies & on the beach. We made an effort to distribute them.”

Hotel managers reported positive comments about the educational signage from several guests. The vast majority (80%) of hotel managers felt that the educational signs were effective. One hotel manager reported that a flyer was stolen off their front desk-- but before it was stolen, it was taken out of the frame. Another hotel described enthusiasm from a guest who was visiting from another resort city who wanted to show the poster to her City Council.

“The posters were great. It is a clever campaign. We put signs in elevators and in in-room directories. Every butt we got in the receptacle was one less potentially littered on the beach.”

“We put the Beachy Clean signs in all of our elevators. The signs with the whale and the dolphin. You can put signs up, but people don’t always pay attention. We don’t allow smoking, but people smoke on our balconies.”

“A few customers mentioned Beachy Clean and pocket ashtrays on their comment cards (positive comments). Since comment cards are rarely filled out-- this is actually a lot of feedback.”

T-shirts for Volunteers

During scans, volunteers were often questioned by beach goers, and even lifeguards, about what they were doing. In 2015, towards the middle of the project, we decided to order t-shirts for the volunteers to identify their project involvement and encourage questions by the public. When volunteers wore the “Butt Buster” t-shirts (Figure 17), they found it easier to talk with beach visitors about this program and its goals. While we did not purchase the shirts until later in the summer for the July and August scans, we feel we were asked more questions by public when we wore them. We recommend that if the budget allows, scan volunteers are provided with identifying t-shirts to encourage public to ask questions and allow the scans to become educational opportunities.

Media Outreach

The Virginian Pilot (readership 160,000) published a story about the program in May 2015. http://pilotonline.com/news/local/environment/va-beach-oceanfront-campaign-targets-litter-cigarettes/article_d0b44234-f08c-5975-8f67-5355de01c67f.html

The website AskHRGreen published a blog post in August 2015 about this CLPP as well as a second CLPP that was underway in an area adjoining Virginia Beach. <http://askhrgreen.org/butts-virginia-beach-working-reduce-cigarette-litter/>

The Virginia Beach Visitor’s Guide published a free ad in both their 2015 and 2016 summer publications. <http://vistagraphicsinc.com/advertise/va/virginia-beach.php> (p.72) (Appendix VI)



Figure 17. Shirts were given to all participating CLPP scan volunteers.

DISCUSSION

Successes and Challenges

Taking on a new approach to the CLPP (reaching a transient population of beach visitors) presented many challenges, but it also provided us with insights on how to successfully reach smokers who are in a resort area for just a few days.

Our biggest challenge was establishing a baseline for cigarette litter given that our project started right before the tourist population in Virginia Beach builds to its summer-time highs. This area of Virginia Beach has a very unpredictable population and grows exponentially in the summer. We felt that KAB's recommendations for litter scans in the winter would not provide any useful insights as to the project's effectiveness. Instead, it would have been effective if we could have done scans throughout the tourist season of 2014, so we could better evaluate the impacts of our CLPP in 2015. We look forward to a third year of this project to see if the seasonal trend of decreasing numbers of butts continues.

We also found a challenge in keeping volunteers engaged in the project scans. As the project continued into 2015 and then 2016, we found the number of volunteer participants decreased. We initially planned to assign the same volunteers, or at least same number of volunteers to each scan site for consistency in data collection, but volunteer recruitment and retention were challenging.

Keeping hoteliers and their staff engaged and educated, especially from one season to the next, can also be a challenge. This is not surprising since the hospitality industry has very high employee turnover rates especially among non-management employees.¹⁰ More often than not, the staff at the front desk knew about their hotel's participation in the CLPP and were aware of the pocket ashtrays and receptacles.

Other Challenges

- The Virginia Beach Oceanfront CLPP presented several challenges as we sought trends in the amount of smoking-related litter. First, the visitor population varies greatly from day-to-day and week-to-week, and is highly influenced by the weather. Second, rain, wind, and high tides can influence the movement and deposition of littered items. Finally, city employees and volunteer groups conduct litter cleanups. The City has several programs in place to keep the beaches and boardwalk clean including a beach sifter machine and employees to clean the boardwalk most mornings. While we selected scan areas to minimize these factors, scan numbers may not represent the actual success of the program.
- Some hotels had an initial concern that placing receptacles by the door would encourage a smoking area near the entrance. Most of them were able to place receptacles slightly away from entrance doors without infringing on a walkway or City property.
- Our permit in 2016 with the City allowed for the receptacles to be on the boardwalk from April 1 – October 31. We had varying opinions on whether or not they should be left on the boardwalk year-round. Placing receptacles on hotel properties for the winter assured maintenance during the offseason as well as potentially more use than they would get on the boardwalk.
- By placing receptacles on the boardwalk early in the season (2015- June 1; 2016 - May 4, our pre-implementation scans came before the tourist numbers swelled. Without a consistent population, it is difficult to analyze the scan data to determine success.
- The responsibility for emptying and maintaining ash receptacles that were placed on the Boardwalk was on our program staff and volunteers -- not on the employees of the City of Virginia Beach. We came to see that this was not sustainable in the longer term.
- One hotel went from having a smoking floor in 2015 to becoming non-smoking in 2016. They removed the receptacle with the intention of not inspiring smoking on the grounds. They later decided to replace the receptacle.

¹⁰ <http://www.cha-international.com/The-Hotel-Employer-Turnover>,

- As noted earlier, litter scans over a 2-year period at the same site showed a decrease in cigarette butts, but it is unknown if this was due to our efforts or if another factor such as weather, population or the City's beach cleanup efforts were responsible.
- Virginia Beach has a very extensive program in place to keep the beaches clean during the busy season. A beach skimmer combs the beach every morning to pick up any trash left on the beach. Temporary employees are hired to spot sweep the boardwalk every morning.
- Sweepers clean the boardwalk daily, and a beach sifter machine cleans the beaches every morning (Figure 18).



Figure 18. *The City's beach skimmer cleans the beach every morning in the warmer months.*

- One aspect of this program that was impossible to measure involved the litter-prevention stickers on the beach trash cans. Potentially thousands of visitors saw the messages.
- Depending on volunteer participation, fluctuations in scan coverage may affect data collection. In other words, four volunteers covering an area are likely to find more butts than two volunteers in the same area.

- Parking in a resort area during the busy season can be challenging and expensive.
- Conducting scans during daytime hours, when people are still on the beach, creates areas within your scan site that cannot be scanned.
- The amount of cigarette litter throughout the whole scan area did decrease from May to June, however, the beach access part of that area (the part closest to the hotel) remained the same. It could be argued that those numbers should have increased with the increased population, but this is speculation.
- We found it interesting that the visitor population increased by 37% from spring to summer (according to the VBCVB), but butt litter increased by up to 225% at some locations. Since "spring" and "summer" both include three months, it would be interesting to have a monthly breakdown of visitor populations, and then compare the population increases with data from scans.

Successes

We feel that our program had successes in decreasing the amounts of cigarette butt litter on the beach or boardwalk, as well as these other successes:

- As mentioned in the Results section, litter scans at 57th Street showed a 33% decrease in cigarette butt litter from May 2015 to May 2016. On 22nd Street, cigarette butt litter decreased by 68% in the same time frame.
- The collaboration and enthusiasm from the hospitality industry indicates that this program has the potential not only to keep Virginia Beach clean, but could serve as an example in other areas of the country, as well. We learned that hotel managers have several networks that they belong to in order to share information, and it was helpful to us to tap into these networks.
- In total, the ten ash receptacles that were placed on the boardwalk collected more than 45,000 cigarette butts during two seasons.
- Hotel and restaurant managers reported a decrease in the amount of cigarette litter on their properties which they attributed to this project. Based on input from the hotel participants, we estimate that the 32 ash receptacles on hotel properties collected 270,000 butts in 2016.
- Feedback from participants was overall very positive. All hotel managers agreed that they would recommend this program to other hotel managers and owners.
- The number of cigarette butts collected in the boardwalk receptacles noticeably increased once

the colorful Keep It Beachy Clean stickers were placed.

- Hotels took responsibility for emptying their ash receptacles. Most emptied the receptacles every week, every-other week, or once a month based on need.
- The partnerships that were built and strengthened during this two year period have led to other litter-prevention collaborations.

Recommendations for other beach communities

Below, CVW makes recommendations for other beach communities based on what we've learned. Surfrider Foundation, Virginia Beach Chapter, has received funding from KAB for a third season (2017) of expanding this CLPP. We also include strategies and tactics that will be tested in the 2017 CLPP.

Timeline

- In order to have all materials and commitments from partners in place before tourist season begins, it is necessary to start planning months in advance.
- Allow for shipping time when ordering receptacles.
- Allow time to form partnerships and get to know potential participants. Be prepared to attend meetings, workshops, and other events where you can present your program to many potential members at one time.
- Allow time for any permitting processes that may be required to place receptacles in public places.
- Follow up is key to maintaining strong partnerships. We tried to reach out to hotel managers at least once a month during the summer season to get feedback about program progress and challenges as well as check on pocket ashtray stocks.

Recommendations for Forming Partnerships

- We encourage building a broad and inclusive team of partners.
- We chose to work with the local hotel association to implement this program in an efficient and effective manner. Through their meetings and events, word about our program spread to hotel and restaurant owners and managers in an effective manner. Through their network, we were also able to get a complimentary ad in the local Visitor's Guide.
- Look at all aspects of your CLPP plan and seek assistance from local community organizations or municipal offices to assist with accomplishing your strategies. Our volunteers came from a military group and the local Surfrider Foundation Chapter. Several city agencies were involved in assisting with permits, marketing and feedback. Other partners included the receptacle company, Glasdon, Inc., Keep Virginia Beautiful, and Virginia Green Travel which helped with hotel awareness and recruitment.
- Giving credit to partners, when possible and appropriate, may help with long term commitment and assistance when needed. We placed logos on educational materials when appropriate, shared social media posts about our partner's participation and included partners on the website and in this report.

Planning Long-term Commitments

- Many litter-prevention programs end when external funding ends. Partnerships formed during the program can help assure that the program can continue in some capacity.
- We found that the Surfrider Foundation volunteers were willing to assist with maintaining the boardwalk receptacles, with or without continued funding. Several participating hotel managers also offered to maintain boardwalk receptacles that were in front of their properties.
- The hospitality industry has a vested interest in keeping the beaches clean. Many displayed interest in investing their own money towards expanding the program even further. Others stated that they would not participate if they had to contribute funding.

Scan Recommendations

- For this type of CLPP, determining success of the program through cigarette litter scans can prove to be challenging. Changing populations and municipal beach cleanup efforts certainly influence the number of butts found on the beach during a scan.
- If possible, establish a baseline by conducting a “pre- implementation” scan during the busy season of the previous year. This gives you data to compare to during your project. Without this baseline data, it is almost impossible to know the real percent of reduction.
- It is important to know where major events will be held in a resort area. Virginia Beach often holds concerts on the beach, surf contests, races and more. Try to set up your scan area(s) in a section of beach not often or never used for special events.
- Use the same number of volunteers (same volunteers if possible) at each scan site, for each scan to keep effort consistent.
- If parking is an issue, have volunteers meet in an area away from the Resort where car-pooling can be arranged. Choose scan areas based on available parking if necessary. We pre-arranged parking with several participating hotels to assure our volunteers would have a free place to park during their scan.
- Try to conduct scans either early in the morning or late in the evening when you are least likely to have beach goers in your scan site.
- Use small buckets to collect butts. Explain to volunteers that the purpose of the scan is to count butts and cigar tips. Other litter on the beach can be very distracting.
- If you have enough volunteers, have one person record data while the others pick up the butts.
- Walk transects on the beach. Have volunteers walk about 10 feet apart (or whatever their comfort level is), looking to the right as they walk. This will assure maximum visual coverage (Figure 19).
- Count in 10s, 20s or 100s, depending on the amount of cigarette litter in your scan area. Be sure to mark on the datacard what increments you are using.
- If your beach has a boardwalk, trail, path, etc., count that area separate from the beach. This will give you valuable data about where additional receptacles are most needed.
- Sustainability scans in a resort area can be problematic in that the population has again decreased and your numbers will be vastly different in March or April than they were in June or July. We recommend looking at scan numbers over years rather than months.
- We recommend that the volunteers doing litter scans wear t-shirts that identify your program. It is a good way to start conversations and educate beach visitors too.

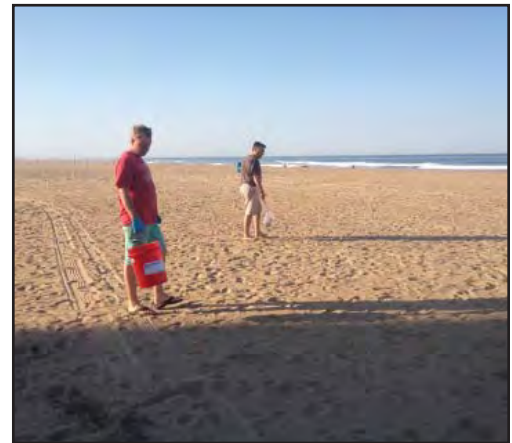


Figure 19. *Volunteers walk transects during a CLPP scan.*

Receptacle Recommendations

- Ash and trash receptacles should be outfitted with bright, colorful and positive messaging to encourage use.
- Test your receptacles for water drainage. A torrential downpour can fill a receptacle with water if drainage is not available.
- Give your participants 2-3 choices of receptacles. They all have different needs and location options.
- Be very clear about where the receptacle should be placed. Speak to the property manager or maintenance staff about their problem areas. Don't hesitate to ask for a quick walk around the property to document any issues and work with staff to determine the best location for receptacle placement.

Outreach and Education

- Since restaurants in Virginia Beach are non-smoking, patrons received coasters whether or not they were smokers. It is unknown if the message on the coasters reached the target audience which is why we chose not to distribute coasters in 2016.
- We chose a positive and simple message for our education campaign. Because these are people on vacation, we decided that negative messaging may be ignored, but using colorful graphics and a simple “Thanks!” might attract more attention from guests. The hotels favored this approach as well.
- Find out if there are any other litter-prevention messages already in place in your area. You may find that the message can be changed to include cigarette litter. A consistent message throughout an area demonstrates a community that is dedicated to reducing litter.
- We would recommend that the coasters should have a more direct message through an interactive component (i.e., hashtag or game) which would assure that users have a better chance of receiving the message. However, in a beach resort area, restaurants will use thousands of coasters in a season. In speaking with restaurant managers, we were told that they can use 500 coasters or more in one weekend. While this may be an effective way to get the litter-prevention message to guests if designed properly, when considering the cost and amount of material used, the end may not justify the means.
- Resort area events can draw large crowds and often too few outlets for disposing of litter properly. We would recommend participating in beach events when financially possible. Surfrider Foundation, Virginia Beach Chapter, has committed to five events for the 2017 summer season. They will pass out pocket ashtrays, will provide receptacles that can be used around the event area and will have an informational banner. We do not recommend distributing materials that may end up as litter after the event.
- If some of your partnering hotels have sleeping rooms in which smoking is permitted, ask if they would place a pocket ashtray and a litter-prevention informational card in the rooms for arriving guests.

Appendix I

Virginia Litter Law

Litter as a misdemeanor:

§ 33.1-346. Dumping trash, companion animals, etc., on highway, right-of-way or private property; penalty.

A. It shall be unlawful for any person to dump or otherwise dispose of trash, garbage, refuse, litter, a companion animal for the purpose of disposal, or other unsightly matter, on public property, including a public highway, right-of-way, property adjacent to such highway or right-of-way, or on private property without the written consent of the owner thereof or his agent.

B. When any person is arrested for a violation of this section, and the matter alleged to have been illegally dumped or disposed of has been ejected from a motor vehicle or transported to the disposal site in a motor vehicle, the arresting officer may comply with the provisions of § 46.2-936 in making such arrest.

When a violation of the provisions of this section has been observed by any person, and the matter illegally dumped or disposed of has been ejected or removed from a motor vehicle, the owner or operator of such motor vehicle shall be presumed to be the person ejecting or disposing of such matter. However, such presumption shall be rebuttable by competent evidence.

C. Any person convicted of a violation of this section shall be guilty of a misdemeanor punishable by confinement in jail for not more than 12 months and a fine of not less than \$250 or more than \$2,500, either or both.

In lieu of the imposition of confinement in jail, the court may order the defendant to perform community service in litter abatement activities.

D. The governing bodies of counties, cities and towns are hereby authorized to adopt ordinances not in conflict with the provisions of this section, and may repeal, amend or modify such ordinances.

E. The provisions of this section shall not apply to the lawful disposal of such matter in landfills. (Code 1950, § 33-279.1; 1950, p. 453; 1970, c. 264; 1972, c. 65; 1976, c. 773; 1978, c. 226; 1981, c. 340; 1988, c. 805; 1995, c. 657; 2000, c. 20; 2003, cc. 113, 787.)

Section 33.1-346 of the Code of Virginia makes littering or dumping trash a Class 1 misdemeanor, punishable by up to 12 months in jail and/or a fine up to \$2,500.

Section 10.1-1143 of the Forestry Code makes it unlawful to throw "any lighted smoking material" from a vehicle. This is a Class 2 misdemeanor violation, punishable by up to 6 months in jail and/or a fine up to \$1,000. (With either the Class 1 or Class 2 offense, community service can take the place of jail time.)

<http://www.fairfaxcounty.gov/nvswcd/newsletter/buttlitter.htm>

Appendix II

Informational Flyers for Hotels

2015 informational flyer

Cigarette Litter Prevention Program

A Pilot Program for Virginia Beach's Oceanfront Area

Free & attractive outdoor ash receptacles for selected VB hotels!

Priority will be given to hotels with current Virginia Green Certification.

Let's work together to reduce the most common type of litter: cigarette butts!



Learn how **your** hotel can get a **free ash receptacle, free pocket ashtrays** & reduce the amount of cigarette litter around your hotel.

Contact: Christina Trapani at
cleanvirginiawaterways@gmail.com
or 757-613-5683.
Clean Virginia Waterways website:
www.longwood.edu/cleanva

The Fine Print:

- 15 to 25 hotels along the boardwalk will be supplied with a FREE cigarette receptacle to place in a transition point on their property. (A transition point is the place where smokers are most likely to throw out their butts, such as outside of a bar area or near an entrance door.)
- Hotels will be chosen on a first come/first serve basis. The state's Virginia Green Travel program will be actively promoting this project to the 45 certified Virginia Green Lodging partners in Virginia Beach.
- Hotels will be given four options of receptacle to choose from (see below).
- CVW will deliver receptacles, pocket ashtrays and signage to hotels by April 30, 2015.
- Receptacles should be installed by hotel staff by June 1, 2015. Hotel staff will also empty the cigarette receptacles.
- Participating hotels will provide a cigarette butt receptacle for their staff break area.
- Hotels will be supplied with pocket ashtrays and signage to encourage visitors to use them. Signage should be placed in reception area, bar/restaurant restrooms and/or hotel guestbook.
- Volunteers from Surfrider Foundation will conduct pre- and post-installation scans of cigarette litter.
- Five receptacles will be placed along the Virginia Beach Boardwalk (upon City Manager's approval) and will be maintained by volunteers from Surfrider Foundation.
- Hotels will be asked for feedback including number of pocket ashtrays distributed and number of hotel room rentals during first six weeks of program.
- CVW will work with VBHA to write and distribute a press release regarding program and participating hotels. All project partners will use social media and other outlets to bring awareness to this program.
- Contact Christina TODAY at cleanvirginiawaterways@gmail.com or 757-613-5683.
- For more information on the ash receptacles, please see www.glasdon.com.



Pocket Ashtrays



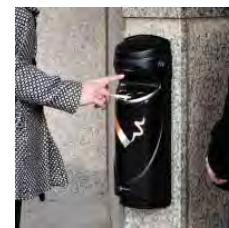
Mini Ashmount



Ashmount



Ashguard SG



Ashmount SG

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2016 informational flyer

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cleanvirginiawaterways@gmail.com
or 757-613-5683.
Clean Virginia Waterways website:
www.longwood.edu/cleanva

The Fine Print:

- 13 hotels along the Oceanfront and Bay beaches participated in the 2015 project, helping to prevent thousands of cigarette butts from being littered on our resort beaches.
- We would like to add 8-10 additional Oceanfront properties to this project.
- Hotels will be supplied with a **FREE** cigarette receptacle to place in a transition point on the **ocean side** of their property. (A transition point is the place where smokers are most likely to throw out their butts, such as outside of a bar area or near an entrance door).
- Hotels will be chosen on a first come/first serve basis.
- Hotels will be given two options of receptacle to choose from (one receptacle per property).
- CVW will deliver receptacles, pocket ashtrays and signage to hotels in May.
- Receptacles should be installed by hotel staff by May 27, 2016.
- Hotel staff are responsible for maintaining the cigarette receptacles and logging # of butts collected.
- Participating hotels will provide a cigarette butt receptacle for their staff break area and educate staff regarding participation in the program.
- Hotels will be supplied with pocket ashtrays and signage to encourage visitors to use them. Signage should be placed in reception area, bar/restaurant restrooms, elevators and/or hotel guestbook.
- Hotels with bar/restaurants will be given a supply of "Beachy Clean" coasters and/or table tents to use throughout the season.
- "Beachy Clean" rack cards will be given to hotels willing to place them in reception area.
- Volunteers will conduct pre- and post-installation scans of cigarette litter to determine success of the program.
- Ten receptacles will be placed along the Virginia Beach Boardwalk from 15th to 24th Street.
- Hotels will be asked for feedback including number of pocket ashtrays distributed and guest feedback.
- Partners are encouraged to use social media and other outlets to bring awareness to this program.
- Contact Christina TODAY at cleanvirginiawaterways@gmail.com or 757-613-5683.
- Please see information below about available receptacles, pocket ashtrays and educational materials.

Appendix II: Informational Flyer for Hotels (continued)

2016 informational flyer

Cigarette Litter Prevention Program

A Pilot Program for Virginia Beach's Oceanfront Area

Name _____ Phone #/email _____

Hotel _____ Address _____

Please indicate which items you would like for your property:

Receptacles (choose one): Ashguard SG _____ Ashmount SG _____

Indicate # of flyers/posters: 5 x 7 framed sign for front desk _____ 8.5 x 11 flyers _____ 11 x 17 posters _____



Keep America Beautiful pocket ashtrays (left) will be made available for free while supplies last. If you would like to purchase "Beachy Clean Virginia Beach" pocket ashtrays (below left) please check appropriate amount: 100/\$130 _____, 200/\$260 _____.

Ashguard SG™

A contemporary designed floor-mounted cigarette unit, fitted as standard with SmokeGuard™ smoke-dampening device. The ashtray has a liner capacity of 3 gallons, capable of holding 3,500 cigarette butts.

Ashmount SG™

Hold over 1000 cigarette butts with the Ashmount SG ash container, helping to keep sidewalks and public smoking areas tidy.

For more information on the ash receptacles, please see www.glasdon.com



Please:
 Use outside cigarette butt receptacles.
 Pick up a complimentary pocket ashtray from the front desk before heading to the beach.
 Dispose of ALL litter properly.

This hotel is participating in a Cigarette Litter Prevention Program funded by Keep America Beautiful and managed by Clean Virginia Waterways. Thank you for keeping our beaches and waterways clean.



Custom printed pocket ashtrays will be available for purchase if enough requests are made to meet the minimum.



Other educational materials will be created throughout the program and distributed.

Appendix III

Scan Sites



All maps made using Google Earth.

Appendix IV

Materials Used

Pocket Ashtrays



Coasters



Mini-Ashmount



Ashmount SG



Ashguard SG



**KEEP IT
BEACHY
CLEAN**

THANKS!

There's a sea turtle out there
who's better off now.

Virginia Beach
Hotel Association

Please:
Use outside cigarette butt receptacles.
Pick up a complimentary pocket ashtray from
the front desk before heading to the beach.
Dispose of **ALL** litter properly.

This hotel is participating in a Cigarette Litter Prevention Program
funded by Keep America Beautiful and managed by Clean Virginia Waterways.
Thank you for keeping our beaches and waterways clean.

This flyer was printed in 8 1/2" x 11" and 11" x 17."

Appendix IV: Materials Used (continued)

Rack Cards



What can you do to help?

-  Recycle aluminum cans, glass and plastic bottles, paper and cardboard. Recycle bins can be found along the boardwalk.
-  Use reusable shopping bags and drink bottles.
-  "Scoop the Poop!" Pick up after your pet and dispose of properly.
-  Pump out boat holding tanks at available pumpout stations.
-  Reduce water usage with optional linen washing service.
-  Check around you for trash and personal belongings before leaving the beach. Leave nothing but footprints.
-  Dispose of cigarette butts and ALL trash properly.

Please...do not feed the birds.

Thank you for helping to keep our beaches and waterways clean.

For more information visit
BeachyCleanVB.org



Clean beaches and waterways are important to everyone! Please use the tips on the other side of this card to help us keep Virginia Beach one of the cleanest beaches around.

Thanks for *Keeping It Beachy Clean* and enjoy your stay.

Take the Beachy Clean Survey
beachycleanvb.org/survey

Answer a few quick questions about the Beachy Clean Virginia Beach campaign and be entered to win a **Beachy Clean Prize Pack** (Drawing to be held once a month, June - September, 2016, shipping to the United States only).



This Project is Supported by



Appendix IV: Materials Used (continued)

Trolley Posters



THANKS!
FOR NOT LITTERING
You just saved a sand
fiddler from smoking.



Virginia Beach
Chapter



THANKS!
FOR NOT LITTERING
You just made a dolphin very happy.



Virginia Beach
Chapter



THANKS!
FOR NOT LITTERING
Nobody wants to feel a
butt between their toes.



Virginia Beach
Chapter



THANKS!
FOR NOT LITTERING
There's a sea turtle out there
who's better off now.



Virginia Beach
Chapter



Appendix V

CLPP Scan Data

Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
5/3/15	1st Street	271	4	0	2
5/3/15	22nd Street	833	9	0	3
5/3/15	36th Street	340	1	0	2
5/3/15	57th Street	211	3	2	3
Totals		1655	17		
Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
5/17/15	1st Street	371	10	0	3
5/17/15	22nd Street	476	13	0	3
5/17/15	36th Street	1230	13	0	6
5/17/15	57th Street	560	8	2	6
Totals		2637	44		
Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
5/31/15	1st Street	502	4	0	4
5/31/15	22nd Street	438	13	1	3
5/31/15	36th Street	530	7	0	7
5/31/15	57th Street	380	6	1	7
Totals		1850	30		
Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
6/14/15	1st Street	296	6	0	2
6/14/15	22nd Street	720	6	1	2
6/14/15	36th Street	610	2	2	5
6/14/15	57th Street	293	6	2	2
Totals		1919	20		
Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
6/28/15	1st Street	351	5	0	2
6/28/15	22nd Street	684	20	1	2
6/28/15	36th Street	480	2	1	2
6/28/15	57th Street	364	4	3	2
Totals		1879	31	5	
Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
7/26/15	1st Street	406	4	0	1
7/26/15	22nd Street	875	16	1	2
7/26/15	36th Street	880	5	1	3
7/26/15	57th Street	546	2	3	2
Totals		2707	27		

Appendix V: CLPP Scan Data (continued)

Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
8/23/15	1st Street	0	0	0	0
8/23/15	22nd Street	910	13	1	3
8/23/15	36th Street	720	6	1	5
8/23/15	57th Street	555	0	3	5
Totals		2185	19		

Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
5/1/16	16th Street	233	3	0	3
5/1/16	22nd Street	268	6	2	3
5/22/16	57th Street	376	9	3	3
Totals		877	18		

Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
8/7/16	16th Street	575	15	2	3
8/7/16	22nd Street	602	5	2	3
Totals		1177	20		

Total Butts and Tips collected in 2-year period		Butts	Cigar Tips		
		16886	226		

2016 Sustainability Scan

Date	Location	Butts	Cigar Tips	Ash Receptacles	# of Volunteers
4/30/17	16th Street	575	88	1	4
5/7/17	22nd Street	382	24	1	3

The 2017 16th Street sustainability scan was completed after a very busy beach weekend and should not be considered to be typical for this time of year.

Appendix VI

Print media

askhrgreen.org/butts-virginia-beach-working-reduce-cigarette-litter/

LET'S TALK GREEN THE ASK HR GREEN BLOG

ARCHIVES

- May 2017
- April 2017
- March 2017
- February 2017
- January 2017
- December 2016


CATEGORIES

- Beautification
- Clean And Safe Tap Water
- Community Events
- Don't Litter!
- Fats, Oils And Grease Disposal
- For Educators
- Gardening
- Going Green
- Holidays
- Household Tips
- HR Green Campaign Updates
- Keeping Storm Drains Free
- Lawn And Landscape
- Lawn care
- Outdoor Tips
- Pets
- Plastic Bags
- Reduce Reuse And Recycle
- Research
- Service Learning
- Using Water Wisely
- Waterways


WE'RE TALKING GREEN HERE, FOLKS...

NO BUTTS ABOUT IT.... VIRGINIA BEACH WORKING TO REDUCE CIGARETTE LITTER

Posted on August 6, 2015 by Guest Contributor | Comments Off



Please:
Use outside cigarette butt receptacles.
Pick up a complimentary pocket ashtray from the front desk before heading to the beach.
Dispose of ALL litter properly.




The City of Virginia Beach is excited to participate in two Keep America Beautiful Cigarette Litter Prevention Program (CLPP) grants in an effort to reduce cigarette litter at the Virginia Beach Oceanfront and Lake Smith/Lake Lawson Natural Area.

Clean Virginia Waterways of Longwood University (CVW) is spearheading the Virginia Beach Oceanfront initiative. CVW's program involves working with various partners at the Virginia Beach Oceanfront. This project targets visitors to the resort area and is the first CLPP of its kind!

With the help of the Virginia Beach Hotel Association (VBHA) and Virginia Green, CVW partnered with 12 resort hotels and supplied each of them with a cigarette receptacle, pocket ashtrays and program signage for their guests. We also worked with the City of Virginia Beach Resort Management office to place five receptacles on the boardwalk between 20th and 24th Streets. Finally, through collaboration with the VBHA, Virginia Beach Convention and Visitors Bureau and the Resort Advisory Commission (RAC) G.R.E.E.N. Committee, we created graphics consistent with the committee's Clean Beaches Program.

Throughout the project, volunteers from Surfrider Foundation's Virginia Beach Chapter and the Navy's Norfolk Fleet Readiness Center have conducted six litter scans at four sites along the oceanfront, including small areas along the beach, boardwalk and beach access areas. To date, volunteers have counted and removed more than 12,000 butts from the sites.

Once the project is complete, we hope the Clean Beaches Program will continue keeping our beaches Beachy Clean! Keep track of our project on the CLPP Virginia Beach Facebook page:



<https://www.facebook.com/CigaretteLitterPreventionVB>

Virginia Beach Parks and Recreation is also participating in a CLPP grant coordinated through askHRGreen.org at Lake Smith/Lake Lawson Natural Area. This 42-acre preserve has more than 12,000 feet of shoreline and, while the City of Virginia Beach owns the property, the water/reservoir is owned by the City of Norfolk.

After being closed for approximately one year, this popular fishing destination reopened in October 2014 after a major renovation. The improvements include a new boat ramp, car and boat trailer parking, several fishing and overlook platforms, a pedestrian bridge, trail renovations, a large shelter, a new playground and a new restroom facility.

This is exciting stuff!
Get email notifications when new blog posts have been made.

Your Email:

[Meet Our Bloggers](#)


[About askHRGreen.org](#)

[Guest Blogger Guidelines](#)

LOOKS LIKE FUN!


- Clean the Bay Day 3 Jun 2017
- Preschool SPAT Program 5 Jun 2017 Virginia Beach
- VDDCA - Curious &

SUBSCRIBE TO OUR MONTHLY E-NEWSLETTER!



GOOD TIP No 33

SAVE MONEY FIX THAT LEAK



a shower leaking AT 10 DRIPS/MINUTE wastes more than 500 GALLONS/YEAR

That's enough water to wash **60 loads** of dishes in your dishwasher

Reaching Beach Visitors: A Unique Cigarette Litter Prevention Program

34

Appendix VI: Print media, continued



The Virginia Beach Visitor's Guide is distributed to almost 400 locations throughout Virginia Beach. Vista Graphics donated the space for the ad (left).

Oceanfront campaign targets litter, cigarettes

By Stacy Parker
The Virginian-Pilot

VIRGINIA BEACH
Remember those beach closures last summer? The city closed much of the Oceanfront to swimming for two days in August, during the height of the tourist season, when bacteria levels exceeded state standards. If litter wasn't on the mind of resort-area businesses before the advisory, it is now. Cleaning up after pets, properly disposing of food waste and diapers, and not feeding the seagulls can help control bacteria levels in the water, according to the city's Department of Health.

Laura Habr, who owns a restaurant and heads a committee focused on environmental responsibility in the resort area, described last summer's experience as an "eye-opener" that inspired a new campaign: "Keep it Beachy Clean."

"You just made a dolphin happy" and other sayings will be printed on stickers for trash cans and on coasters for restaurants. Hotels and businesses will display a tip sheet on keeping beaches clean and will be encouraged to promote the campaign on social media.

"It's a great start," Habr said.

Also, Clean Virginia Waterways obtained a grant from Keep America Beautiful's cigarette litter prevention program to install five receptacles between 20th and 24th streets on the Boardwalk and more than a dozen at hotel entrances. Hotels also will receive portable pocket ashtrays to hand out to guests.

Christina Trapani, project coordinator, hopes the measures will get through to smokers who stub out their cigarettes in the sand and leave them there.

"A lot of people don't realize that it is littering," Trapani said.

Cigarette butts are the No. 1 type of litter in the world. Filters are made from plastic-based fibers that are not biodegradable.

Trapani and volunteers

plucked more than 4,000 of them during two visits to 1st, 22nd, 36th and 57th streets earlier this month. They found the most - 300 - at 1st Street.

They'll scout the beach for butts again after the receptacles are installed in early June.

"We're not trying to point fingers or make anyone uncomfortable," Trapani said. "We want to make it convenient to have somewhere to put cigarette butts."

Stacy Parker, 757-222-5125, stacy.parker@pilotonline.com

BILL TIERNAN / THE VIRGINIAN-PILOT

Christina Trapani holds one of the receptacles that will be placed along the Boardwalk for throwing away cigarette butts. Trapani and volunteers picked up more than 4,000 butts at the Oceanfront earlier this month.

"You just made a dolphin happy."

From the anti-littering campaign



**THANKS! For Participating in the Virginia Beach
Oceanfront Cigarette Litter Prevention Program and
Making it a Success!**



Schooner Inn
Oceanfront Inn
The Breakers
Boardwalk Resort
The Capes Hotel
Comfort Inn & Suites Oceanfront
Holiday Inn Oceanside
Holiday Inn Express
Econolodge Oceanfront
Ocean Sands Resort
Comfort Suites Beachfront
Virginia Beach Resort Hotel
Hampton Inn North

Belvedere Hotel
Best Western Plus Oceanfront
Oceanfront Inn
Wyndham Virginia Beach
Jumpin' Shrimp
Travelodge Suites
Springhill Suites
Ocean Key Resort
Super 8
Travelodge
The Atrium
Days Inn at the Beach
Ocean House Restaurant



Of Longwood University

