



Review of Municipal Trash Abatement Programs and Best Management Practices  
Prepared by: Meredith Diskin, Cade Kistler, & Kevin Pulliam

*Table of Contents*

<b>Introduction</b>	<b>1</b>
<b>Funding for Litter Abatement Programs</b>	<b>1</b>
<b>Creating Collaborations at All Levels</b>	<b>3</b>
<b>Identifying Locations for Installation of Trash Capture Devices</b>	<b>5</b>
<b>Effective Trash Reduction Technologies</b>	<b>6</b>
<b>Improving Enactment and Enforcement of Laws</b>	<b>7</b>
<b>Trash Monitoring Data Collection</b>	<b>8</b>
<b>Innovative Programs to Engage the Public</b>	<b>9</b>
<b>Recommendations</b>	<b>10</b>
<b>Goal 1 – Educate Citizens about Harmful Effects of Litter and Engage them in Litter Abatement Programs</b>	<b>10</b>
<b>Goal 2 – Make It Easier to Recycle and Dispose of Trash Properly</b>	<b>11</b>
<b>Goal 3 – Improve Existing Programs and Policies</b>	<b>11</b>
<b>Closing Remarks</b>	<b>11</b>
<b>References</b>	<b>13</b>



Figure 1 - Volunteers at a "Creekfest" litter cleanup on Three Mile Creek

## Introduction

Mobile Baykeeper undertook the task of reviewing municipal trash abatement programs and Best Management Practices (BMPs), including non-structural, structural, and regulatory measures, in at least 10 cities throughout the United States. It is hoped that information gleaned from this literature review will be combined with the knowledge gained through undertaking the activities in this GOMP grant to continue to enhance and improve the litter management strategy for the City of Mobile. This review provides recommendations for:

- 1) Funding trash reduction programs.
- 2) Creating regional partnerships among businesses, environmental groups, individual citizens, and governments at all levels.
- 3) Developing a methodology for identifying locations for installation of trash capture devices and promoting the use of effective trash reduction technologies and approaches.
- 4) Improving the enactment and enforcement of laws to reduce trash.
- 5) Increasing trash monitoring-related data collection, generation and dissemination efforts.
- 6) And developing innovative ways of engaging the general public in trash reduction activities.

## Funding for Litter Abatement Programs

### Municipal/Local Led Funding Strategies

When local organizations and businesses are provided funding to assist in implementation of trash reduction programs this assists municipalities in achieving goals of their trash reduction programs. Grants provide money to localities for local litter prevention, recycling programs, litter enforcement and to purchase supplies for cleanups, trash reduction technologies and trash studies. Palmetto Pride, South Carolina's anti-litter and beautification organization, offers a Litter Prevention Grant available to all litter control organizations, non-profits and government agencies.<sup>1</sup> The funding is used to develop successful anti-litter and enforcement programs. The organization specifically looks for programs that include community cleanups and educational programs, illegal dumpsite remediation and trash equipment purchasing. Not only does this reduce litter in the community but also helps municipalities comply with their Phase I MS4 program. The organization also offers a Litter Task Force Grant to assist county governments in hiring part-time litter enforcement officers dedicated to enforcing state and local litter laws.<sup>2</sup> Smaller litter grants are

offered in Philadelphia, Pennsylvania where microgrants are offered to local organizations who propose to develop or expand innovative and impactful litter abatement programs.<sup>3</sup> Last year, the City gave seven organization microgrants in support of the City's bold Zero Waste goal. Funding programs like these helps to encourage and support successful litter abatement and prevention initiatives by local organizations and governmental agencies.

### State & National Funding Sources

Numerous state and national funding sources are available to non-profits, NGOs, and municipalities working to reduce litter. These sources of funds are great ways to perform intensive work on litter abatement projects and jump-start long-term efforts. Because of the episodic nature of these grants, they should not be relied upon for long-term funding of litter abatement programs but should instead be prioritized for more costly purchases and tougher projects.

States that offer litter funding have encouraged municipalities to remove thousands of pounds. Some examples include (but are not limited to):

- Kentucky Department of Environmental Protection's [litter abatement grant program](#)
- Washington Department of Ecology's [community litter cleanup grant program](#)
- Ohio Environmental Protection Agency's [community and litter grants program](#)
- West Virginia's [litter control grant program](#)
- Virginia Department of Environmental Quality's [litter prevention grant program](#)
- Tennessee Department of Transportation's [litter grant program](#)
- Nebraska Department of Environmental Quality's [litter reduction and recycling grant program](#)

Many of these programs are funded by tire disposal fees and/or fees that come from litter enforcement fines. Currently proceeds from litter enforcement fines in Alabama are split between the general fund and the municipality or county where the fine was issued. Many states also have litter taxes and bottle deposit laws that fund litter abatement programs. While the Alabama Department of Environmental Management (ADEM) does offer a [grant program aimed at improving recycling efforts](#), we are currently unaware of any similar litter abatement grants offered by the State of Alabama.

Numerous national funding sources are available for litter abatement projects. Several organizations and municipalities in the area have recently been awardee funding from these sources and are familiar with many of the opportunities available. While it is not the within the scope of this review to attempt to list every opportunity available, some of the primary funders that award grants for litter prevention and removal are:

- NOAA's Marine Debris Program
- EPA's Trash Free Waters and Gulf of Mexico Programs
- The National Fish and Wildlife Five Star Program

## Creative Funding Strategies

One strategy that has become more popular over the last few years is using funding generated from various single use plastic fees to fund litter programs. Because the use of single use plastics inherently increases the generation of litter and burdens municipalities with costs associated with removing that litter it makes sense that customers and/or establishments that choose to use these single use plastics would be charged an additional amount to cover this oft externalized cost. Currently hundreds of municipalities in the country have some sort of rulemaking on single use plastics<sup>4</sup>. Notable cities in the Southeast that have plastic bag legislation include Charleston, Sc (adopted)<sup>5</sup>, and Durham, Nc (pending)<sup>6</sup>. Several other cities in Texas and Florida had similar bans or fees that were removed after action was taken by state legislatures and/or state courts to preempt these ordinances.

Some cities, such as Fresno, Ca use a portion of the proceeds from sales taxes to fund litter abatement programs<sup>7</sup>. This is similar to the “penny sales tax” Mobile, Al has in place through 2023.

Whether from general funds, grant funding, or other creative means, it is vital that city leaders assess the cost litter is encumbering their city with, clearly calculate the cost it will take to begin to deal with the problem, consider all the funding mechanisms available to them, and then take action to ensure there is enough available funding to meet the pervasive problem of litter.

## **Creating Collaborations at All Levels**

Establishing partnerships among public and private entities are an effective strategy for preventing and reducing litter within communities. Public private partnerships where municipalities and private businesses partner to secure sufficient funding to combat litter and move towards zero waste are being implemented successfully all over the U.S. These partnerships leverage the vested interests of local businesses in having clean communities to garner sufficient funding and other resources to tackle the problem of litter from a multitude of angles. Effective collaborations can combine knowledge, data and resources to greatly reduce litter. To establish an effective collaboration, partners must work together to form a common goal and then define a plan of action with roles and responsibilities for each partner to undertake. Philadelphia, Pennsylvania instituted a partnership program, Community Cans Program, where the city partners with local organizations to

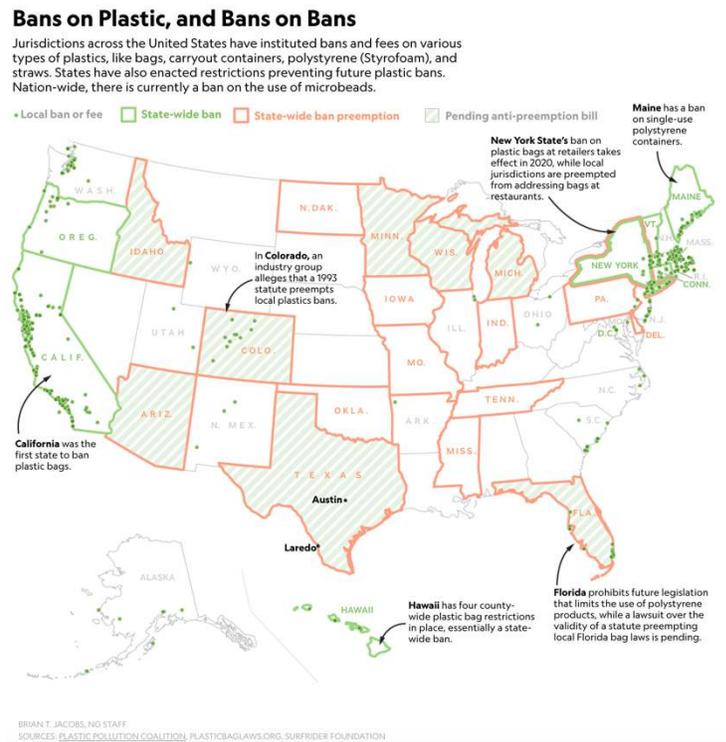


Figure 2 - Map depicting cities and states with litter ordinances or laws.

foster community responsibility for keeping their neighborhoods free of trash.<sup>8</sup> The city works with community leaders to strategically place trash baskets in public right-of-way's along popular commercial corridors. Philadelphia also partners with local artists to decorate and paint the trash baskets to better engage citizens and foster a deeper sense of community pride. Since its inception in 2018, the Community Cans Program has expanded to eight neighborhoods and has consulted with 24 local organizations, eight of which have placed 65 community cans throughout Philadelphia.

A similar program has been offered in Huntsville, Alabama where their environmental Green Team, working through a Phillip Morris initiative, offered to give small businesses in the city free cigarette disposal receptacles to encourage proper disposal of cigarettes.<sup>9</sup> A spokesperson for the program said it has been a very successful campaign with many small businesses taking up the offer and other small businesses are paying to install their own cigarette stands. The amount of cigarette butts littered on sidewalks and streets has decreased drastically since the program began and now the program is working to expand to the outskirts and suburbs of the city.

In addition to providing business with trash cans and other anti-litter equipment, some cities are also partnering with businesses to clean up a specific part of the city. Palmetto Prideways a program in South Carolina allows businesses to sponsor a two-mile section of a highway to be cleaned by SC Department of Corrections inmate services.<sup>10</sup> Businesses can sponsor up to six sections which will include signage along the highway with the company's name. 33 businesses are sponsoring highway sections through the program leading to significantly reduced litter along highly trafficked highways.

While many cities are partnering with local businesses to offer equipment and clean ups, other cities are working to better educate and inform businesses on how they can work to reduce litter. Lexington, Kentucky's Bluegrass Greensource, an organization promoting sustainability and environmental stewardship in the city, performs outreach for both businesses and the community. They collaborate with businesses to host educational presentations and perform waste audits. A recycling waste audit will be performed on both municipal buildings and willing businesses to assess their recycling efforts and gain knowledge on how to improve.<sup>11</sup> The audit will identify what types of recyclable materials a business generates and how much of it goes towards recycling or is discarded. The audit identified nearly 93 lbs. of recycling waste but had a contamination rate of 14% (I.E. 14% of the recycling was contaminated with other trash or improperly cleaned in such a way that it could not be recycled). Bluegrass Greensource and Arlington Christian Church took steps to reduce this contamination rate, including passing out recycling flyers to educate citizens on what can and cannot be recycling. A follow up audit the next year revealed the church had reduced its contamination rate to under 2%. Philadelphia also implemented a Municipal Building Waste Audit and Digital



*Figure 3 - Partners from several groups discuss litter abatement strategies in Mobile, Al near One Mile Creek.*

Commercial Waste Report.<sup>12</sup> Any city-owned and operated facilities must submit an annual waste audit report detailing what materials or wastes the facility has generated that year and the names of the hauling companies servicing the facility. The audit and has led to exciting outcomes, including the development of new City contracts for recycling construction and demolition debris and waste cooking oil, standardized recycling signage and outreach materials provided across City departments, and tools to help City-owned facilities track and reduce their waste generation over time. Preventing and cleaning up litter require the resources and participation of multiple entities. Litter and waste impact a broad array of entities, thus it is vital that collaborations occur to enact anti-litter strategies and programs. These entities can share information, provide resources and equipment and improve the ability of all to achieve a common goal of reducing waste in the environment.

### **Identifying Locations for Installation of Trash Capture Devices**

#### Placement of Litter Capture Devices - Marine Debris Interceptors, Litter Gitters, etc.

The Mobile Bay National Estuary Program has laid out a plan for how to locate Marine Debris Interceptors and Litter Gitters using GIS analysis of watersheds by land use and runoff potential. This methodology is attached as an appendix to the Dog River Clearwater Revival Report that this review was prepared for and should be referenced when locating trash capture devices.

#### Placement of Waste Receptacles/Recycling Bins

There is a debate in many cities on how best to utilize trash capture devices, including waste receptacles and recycling bins. Some city officials believe that by adding more trash cans in neighborhoods with major litter issues citizens will be more inclined to throw their trash away. Other officials believe that by removing trash cans citizens will force people to hold on to their trash or waste less. Data has consistently shown though that adding more trash cans reduces the amount of litter.<sup>13</sup> Some cities in the U.S. have already begun conducting



*Figure 5 - A marine debris interceptor installed by the City of Mobile stops litter from going into the stormwater system and subsequently surface waterbodies.*



*Figure 4 - An Osprey Initiative Litter Gitter in One Mile Creek catches floatable litter.*

comprehensive litter studies to collect data on how to best to utilize waste receptacles and recycling bins. Philadelphia partnered with the City's Behavioral Science Initiative to conduct two litter studies on litter reduction and recycling.<sup>14</sup> The first study collected data on the effect of waste receptacle placement on litter and cleanup time. During the experiment, the number and location of trash cans in four parks and three commercial corridors was changed and the amount of trash and staff time spent collected litter was measured. The results revealed

that when fewer trash cans were available less trash was placed in the cans and more staff time was spent cleaning litter. The second study researched the effect of distributing lidded recycling bins around the city on recycling volume and litter. Lidded recycling bins were placed at four separate recycling centers and then data was collected on recycling volume and litter rates. The results revealed the bins increased the volume of recycling but did not affect litter rates. The results are now being used to make data-based decisions on the placement and total number of waste containment devices and recycling bins. It is also helping to justify the expenditure of city funds, and craft policy and regulation on increasing bin distribution locations through a collaboration between the Streets Department and the Parks and Recreation Department. A third study is currently being performed to test the effects of positive versus negative message on litter and illegal dumping. After researching how public trash can placement affects litter rates and surveying litter conditions throughout Philadelphia, the City is now identifying ways to strategically increase trash can coverage in Philadelphia's public right-of-way with the goal of reducing litter and illegal dumping. While scientific studies are very successful in determining location and number of trash capture devices, not all cities must go to this length in order to gather useful data.

Louisville, Kentucky's Neighborhood Cleanliness Project conducted a litter assessment to establish a baseline of litter, note where litter came from, the major types of litter and the locations where litter is most commonly found.<sup>15</sup> Surveyors walked the streets within two neighborhoods and gave each street a score based on a previously set guideline. After the assessment, Louisville improved the current trash collection system by adding more decorative waste receptacles to the streets with the biggest litter issues, providing 77 households with overflowing trash bins and additional bin, providing four recycling bins to households that requested them and providing a appointment-based large item collection system. The City also added ten surveillance systems to areas with the highest rates of illegal dumping. Major improvements in reducing litter and improving neighborhood cleanliness were recorded a year after the initial assessment. Reports of solid waste issues and illegal dumping decreased by 50% and many streets improved their cleanliness scores. Additionally, nearly 100 citizens pledged to not litter, pick up any litter near their homes, and place a sign in their yards to raise awareness of the issue.

In Mobile, Alabama, an environmental company called Osprey Initiative designed and created a Litter Gitter, an in-stream trash collection device designed to trap litter which flows into the waterways as stormwater runoff. The Litter Gitter floats above the water and uses a boom to direct the flow of water and trash into a metal trap. The trap is cleaned regularly, where debris is sorted from recyclables to provide detailed data on what types and abundance of debris and recyclables are most commonly found in the waterway. Data is collected by the EPA for their Escaped Trash Assessment Protocol (ETAP), working to reduce the amount of trash in the nation's waterways. There are currently 31 Litter Gitters across five Southeastern states, with plans for more in the coming year.

### **Effective Trash Reduction Technologies**

In order to overcome challenges with the increasing amount of litter within our communities and the negative impacts of waste on our environment, some cities and waste management

companies are rethinking strategies and using out of the box solutions to revamp waste disposal and handling. In Montgomery, Alabama a recycling company called RePower South (RPS) is developing new technology to make the recycling process more efficient and environmentally friendly.<sup>16</sup> Recycling that is collected from Montgomery's residences is taken to the Montgomery Recycling and Recovery Facility where RPS's technology will sort the recycling and remove all non-recyclable products to be transformed into low-carbon, clean fuel. This fuel can be used to replace coal and is sold to industrial consumers and utilities. This helps reduce our dependence on coal and provides cleaner air at a lower cost than coal. The partnership between the City of Montgomery and RPS also provides a revenue-sharing provision, whereby the City receives funds from RPS if the sales of recovered materials exceed an agreed upon threshold. In Charleston, RPS uses similarly advanced technology to reduce the amount of waste that is sent to landfills.<sup>17</sup> RPS takes landfill-bound municipal solid waste and processes it so it can be transformed into either a recyclable product, like cardboard, or recyclable fuel used as a substitute for coal. Waste that is not able to be transformed into a recyclable product is then sent to the landfill. As waste and litter becomes a bigger problem for municipalities, innovative technologies and public private partnerships will be critical in achieving cost-effective solutions to clean up waste.

### **Improving Enactment and Enforcement of Laws**

Municipalities enact a multitude of laws and ordinances to curb litter-related crimes. There are state laws, administrative rules and local laws. Laws that work to reduce litter include both commercial and residential littering, sanitation and health, public nuisance and water protection. For instance, in Alabama a law was passed to make littering a Class B misdemeanor, which increased possible jail time to 6 months and fines up to \$3,000.<sup>18</sup> However, in some states the fines increase for repeat offenders. In Jacksonville, Florida fines begin at \$55 for the first offense and increased up to \$350 for the fifth offense. These fines are then used to help pay for the salaries of litter enforcement officers.<sup>19</sup> These state and local laws pertaining to litter are enforced through local law enforcement and enforcement officers.

Some municipalities partner with local law enforcement to help enforce and advise on litter enforcement activities. Charleston has its own enforcement committee which helps to develop and enact its own Palmetto Pride enforcement programs designed to help officers enforce litter laws.<sup>6</sup> The committee includes law enforcement and code officers from around South Carolina, like the Police Departments, Sherriff's Departments and Highway Patrol. The committee advises Palmetto Pride on litter enforcement, legislative acts and education. Palmetto Pride has several anti-litter programs, all designed to confront different aspects of the bigger litter campaign. The Zero Tolerance Program is a collaboration between Palmetto Pride, South Carolina Litter Control Association and statewide law enforcement agencies to educate citizens on litter laws and their associated fines. The Camera Loan Program offers enforcement agencies the ability to borrow surveillance equipment to monitor "hotspots" in their jurisdictions. The agencies must then send Palmetto Pride a report on how the equipment was used and any findings or results. Philadelphia has a similar program to Palmetto Pride, but instead has its own formalized environmental crimes unit within the Philadelphia Police Department Neighborhood Services Unit to coordinate illegal

dumping surveillance.<sup>20</sup> The crimes unit works with the Police Department to impound vehicles involved in litter crimes and streamline litter cases in the courts. It is in the interest of the different enforcement agencies to work together to enforce litter laws and ordinances and help improve the quality of litter control activities in their city, however it is also imperative that enforcement agencies work with local citizens to help enforce litter laws around their neighborhood. Local citizens can act as crime watchers in their neighborhood to help identify and locate potential sources of littering.

Durham, North Carolina has a Swat-a-Litterbug Program that encourages citizens to report littering or any illegal dumping activities.<sup>21</sup> Citizens can fill out a report form on North Carolina's Department of Transportation (NCDOT) website with the car make, model and tag number of the person suspected of littering. NCDOT will then send a formal notification to the suspect that educates them on the littering offense, the local litter laws and the penalties associated with litter. This program allows citizens to become more engaged in the city's anti-litter campaign and helps foster a sense of community pride.

### **Litter Monitoring Data Collection**

The broader issue of litter and illegal dumping activities occurs on a global scale which necessitates the use of gathering data from multiple municipalities to understand how which management practices and anti-litter campaigns work best. Several cities participate in an Annual Litter Index Survey, including Philadelphia, Durham, Lexington and Shreveport, Louisiana.<sup>22</sup> The Litter Index Survey is a data collection tool created by Keep America Beautiful to help its affiliates monitor and collect data on litter within their communities. Each city conducts a visual assessment of the litter conditions of the streets, parks, highways, recreation sites, public schools, waterways, stormwater infrastructure and vacant lots. Field surveyors given a rating based on metrics given to them by Keep America Beautiful, with a "1" being little to no litter and "4" indicating litter that requires a major clean up. This survey allows the city to gather data on where the major litter problems occur and what types of anti-litter strategies are needed. The data is then indexed onto a map to show neighborhood litter ratings. The map also provides resources each neighborhood has to help those citizens keep their neighborhoods clean. This survey has allowed Keep America Beautiful to identify seven major sources of litter: motorists/boaters, pedestrians, households, hauling uncovered loads, loading docks, dumpsters and construction sites.

The most intensive litter monitoring currently being used is the [EPA's Escaped Trash Assessment Protocol](#)<sup>23</sup>. ETAP is being used by several organizations and municipalities, including in the Mobile Bay area, Osprey Initiative, Mobile Bay National Estuary Program, Mobile Baykeeper and others. ETAP provides a level of data beyond what typical volunteer cleanups collect and is extremely useful at more strategically attacking the specific sources of litter in an area by using concrete data about the amounts of each type litter collected. ETAP data can now be entered into the Water Rangers app thanks to funding from the Mobile Bay National Estuary Program.

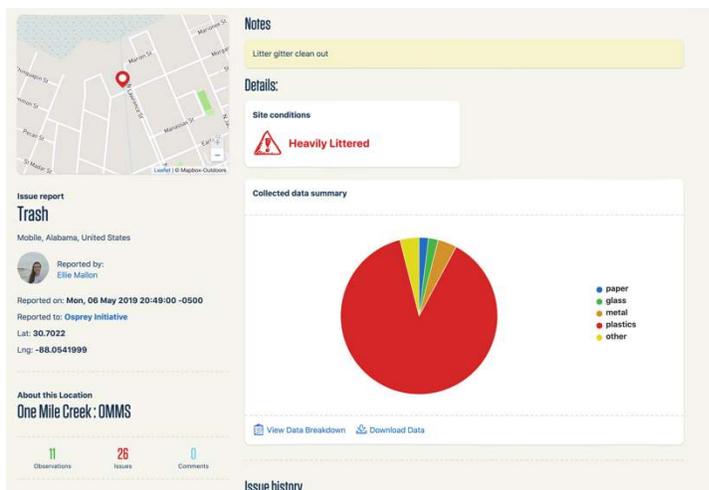


Figure 6 - A screengrab from an ETAP entry Osprey Initiative put into the Water Rangers web tool.

### Innovative Programs to Engage the Public

Community outreach is one of best strategies for curbing litter and encouraging people to be better stewards for their environment and communities. When people develop a greater sense of community pride, they tend to not litter as well as pick up litter they see around their neighborhoods. Outreach programs are often one of the most heavily invested parts of a city's anti-litter campaigns. Many of these programs are geared towards promoting and organizing volunteerism and stewardship. In Chattanooga, Tennessee, the Chattanooga Park Stewards Volunteer Program aims to improve the environmental and aesthetic quality of the parks and greenways by organizing volunteers, hosting local cleanups and providing outreach at events.<sup>24</sup> The program offers multiple volunteer opportunities, including Parks Stewards who assist with maintenance opportunities and report park conditions, and Trail Stewards who help upkeep park trails by picking up litter and inform visitors of trail use guidelines. Similarly, Huntsville's Green Team has a Neighborhood Pride Program, which partners with individuals and neighborhoods to help them design a cleanup and landscape improvement program specific to their neighborhood.<sup>25</sup> Individuals can sponsor neighborhood cleanups and adopt and maintain specific locations in their neighborhood. Lastly, Durham offers an Adoption program which gives neighborhoods and individuals the opportunity to adopt different areas of their community, including streets, streams and parks.<sup>26</sup> Adoptees must clean up their area a specified number of times per month and report what types of litter was cleaned up and the amount. Volunteer programs offer citizens and communities a chance to take ownership of their neighborhoods, but these programs must also be paired with educational programs to empower and inform citizens about litter issues and how to prevent them.

Education is one of the cornerstones for many anti-litter campaigns. Educating and empowering communities to become environmental stewards is a vital step in eliminating illegal

dumping. It is also an extremely important step in changing the psychology behind littering. Individuals often imitate the actions of those around them and will likely do what is expected of them. If these expectations change then people's behavior will also change. Providing activities and tools to teach citizens about litter prevention and the negative impacts of litter prompts them to become more proactive in their efforts to curb littering. Many anti-littering programs provide educational presentations to schools and businesses to help them become more informed. Shreveport offers schools the option to request a presentation on a variety of environmental topics, including litter/solid waste and stormwater runoff/stormwater drains.<sup>27</sup> In addition, Shreveport will meet and present with neighborhood organizations to specifically discuss how neighborhoods organizations can work with its citizens to combat litter.<sup>28</sup> Similarly, an organization in Birmingham, Alabama called Litter Quitters gives presentations to participating schools, including all 30 public schools in Jefferson County.<sup>29</sup> The presentations discuss the local watersheds, how litter impacts these watersheds, and presents the schools with an opportunity to participate in a city-wide competition. Students compile a 60-second YouTube video discussing litter and why it's harmful and whichever video receives the most "likes" will win monetary prizes for their schools. Charleston also has several incentive-based education programs for schools. The Palmetto Pride Art Contest features artwork by students centered around litter.<sup>30</sup> The winning design will be featured on a Palmetto Pride t-shirt. The Children's Book Contest allows students to write a book describing how litter affects everyone. At the end of the contest one book is chosen to be published and will be sent to every school for their library collection of litter-themed books. Incentives for students to participate in anti-litter campaigns like these encourage students to become proactive members of their own neighborhoods in helping in the fight against litter.

## **Recommendations**

We understand that many of the anti-litter programs and policies discussed above may not work for all cities, including Mobile. Therefore, the following is a list of recommendations for what the City of Mobile can do to reduce the amount of litter in our neighborhoods and increase the efficiency and amount of recycling within the city. Although this review was focused on gleaning innovative and effective ideas from other municipalities it should be noted that the City of Mobile and organizations working on reducing litter in the Mobile Bay area are already implementing many of these strategies at various scales throughout the region. If these groups and local municipalities keep the same momentum for stopping litter and gain fresh ideas from this review it is anticipated the substantial ongoing work of reducing litter in the Mobile Bay area will become even more successful.

### **Goal 1 – Educate Citizens about Harmful Effects of Litter and Engage them in Litter Abatement Programs**

#### **1.1 Create a Neighbor-to-Neighbor Network**

The network will be led and managed by elected neighborhood leaders who will collaborate with Department of Public Works on proactive strategies to reduce litter

problems and provide input on the design and distribution of anti-litter education material.

### **1.2 Launch an Anti-Littering Social Media Campaign**

The campaign will educate citizens about trash and litter issues in Mobile and what they can do to help combat the problems in their own neighborhoods. It will be launched across several social media platforms, including Facebook, Twitter, Instagram and YouTube. Citizens will hear about success stories from within their own neighborhoods and throughout the city. These messages will showcase public clean-ups, infographics and videos.

## **Goal 2 – Make It Easier to Recycle and Dispose of Trash Properly**

### **1.1 Increase abundance of trash and recycling bins**

Review feasibility and costs to increase the number of trash receptacles and recycling bins throughout the city at prime locations, municipal parks and shopping centers.

### **1.2 Reduce Single Use Plastics**

Support statewide policies to reduce single-use plastic bags and provide resources to community organizations and businesses to distribute free reusable bags to residents. Additionally, partner with Plastic Free Gulf Coast to educate residents and businesses on moving towards a plastic free economy.

### **1.3 Improve Recycling Technology**

Reach out to RePower South, an innovative recycling company, to discuss how they have improved Montgomery's recycling program and the opportunity for partnership between the City of Mobile and RPS.

## **Goal 3 – Improve Existing Programs and Policies**

### **1.1 Update and Expand Operation Clean Sweep**

Create a collaboration between the Mobile County Department of Environmental Enforcement and neighborhood groups to improve Operation Clean Sweep through an increase in the number of county-wide recycling days and an improvement in the communication and messaging surrounding the events.

### **1.2 Improve Anti-Litter Signage**

Anti-littering messages and signs in highly littered areas to consistently remind residents not to litter and the penalties for littering.

### **1.3 Enforcing strict litter laws**

Notify residents about litter laws and environmental offenses to reduce littering behavior and raise awareness about disposing of litter properly.

## **Closing Remarks**

The majority of citizens share a common vision, a vision of their community as a clean, healthy and eye-catchingly beautiful place. Litter is a direct threat to this vision and is an increasing concern in communities where it is improperly discarded into roadways and waterways. Litter has

many negative impacts like polluting our vital waterways where we swim, play and fish and making an area less appealing to visitors and tourists, indirectly affecting the economy. To combat this challenge, cities across the country have developed and begun implementing numerous litter abatement strategies and programs. These programs are aimed at providing expertise, resources and education to help citizens end littering in their neighborhoods. This litter literature review was written to provide city officials and interested parties in Mobile, Alabama with the knowledge and tools to enhance ongoing litter abatement programs in the City and implement new initiatives where appropriate. Litter is a major issue in Coastal Alabama, costing the taxpayers hundreds of thousands of dollars to clean up each year. Successful litter abatement programs help reduce the amount of litter while also educating citizens on why it's harmful to the environment and what they can do to help reduce and prevent littering in their neighborhoods.

## References

---

- <sup>1</sup> Palmetto Pride. (2020 October). *Litter Prevention Grant*. <https://www.palmettopride.org/grants/litter-prevention-grant/>
- <sup>2</sup> Palmetto Pride. (2020 October). *Litter Task Force Grant*. <https://www.palmettopride.org/grants/litter-task-force-grant/>
- <sup>3</sup> Clean PHL. (2020 October). *Seven Philly Civic Orgs are Fighting Cigarette Litter with Keep Philadelphia Beautiful Microgrant*. <https://cleanphl.org/portfolio-item/seven-philly-civic-orgs-are-fighting-cigarette-litter-with-keep-philadelphia-beautiful/>
- <sup>4</sup> Gibbens, S. (2019, August). See the complicated landscape of plastic bans in the U.S. *National Geographic*. <https://www.nationalgeographic.com/environment/2019/08/map-shows-the-complicated-landscape-of-plastic-bans/>
- <sup>5</sup> [https://www.baglaws.com/media/southcarolina\\_charleston.pdf](https://www.baglaws.com/media/southcarolina_charleston.pdf)
- <sup>6</sup> <https://www.baglaws.com/legislation/state/north-carolina/>
- <sup>7</sup> <https://www.fresno.gov/news/city-begins-highway-litter-abatement-pilot-program/>
- <sup>8</sup> Clean PHL. (2020 October). *Community Cans Program*. <https://cleanphl.org/communitycans/>
- <sup>9</sup> Huntsville Green Team. (2020 October). *Free Cigarette Litter Stands*. <https://www.huntsvilleal.gov/environment/green-team/programs/free-cigarette-litter-stands/>
- <sup>10</sup> Palmetto Pride. (2020 October). *Community Service and Support Programs*. <https://www.palmettopride.org/enforcement/community-service-support-programs/>
- <sup>11</sup> Bluegrass Greensource. (2020 October). *Recycling Case Studies*. <https://bggreensource.org/what-we-do/educational-and-outreach/community-outreach/recycling-case-studies/>
- <sup>12</sup> City of Philadelphia (2019). *2019 Municipal Building Waste Audit Report*. [http://cleanphl.org/wp-content/uploads/2020/01/2019MunicipalWasteAuditReport\\_1.27.20.pdf](http://cleanphl.org/wp-content/uploads/2020/01/2019MunicipalWasteAuditReport_1.27.20.pdf)
- <sup>13</sup> Keep America Beautiful. (2009 January). *Littering Behavior in America Results of a National Study*. Prepared by by Action Research. [https://kab.org/wp-content/uploads/2019/10/NewsInfo\\_Research\\_LitteringBehaviorinAmerica\\_2009Report\\_Final.pdf](https://kab.org/wp-content/uploads/2019/10/NewsInfo_Research_LitteringBehaviorinAmerica_2009Report_Final.pdf)
- <sup>14</sup> Clean PHL. (2020 October). *GovLabPHL Releases Behavioral Science Studies on Litter Reduction and Recycling*. <https://cleanphl.org/portfolio-item/2017behavioralstudies/>
- <sup>15</sup> Louisville KY Government. (2020 October). *Neighborhood Cleanliness Project*. <https://louisvilleky.gov/government/public-works/neighborhood-cleanliness-project>
- <sup>16</sup> Horton, Jennifer. (2020, February 4). Montgomery Recycling Partnership Works to Expand Commodity Sales. *WSFA 12 News*. <https://www.wsfa.com/2020/02/05/montgomery-recycling-partnership-works-expand-commodity-sales/>
- <sup>17</sup> RePower South. (2019 October). *RePower South to Accept Charleston County Recyclables*. <https://www.repowersouth.com/2019/10/24/repower-south-to-accept-charleston-county-recyclables/>
- <sup>18</sup> Gore, Leada. (2019, September 9). New Alabama Law Increases Penalties for Littering; \$500 Fine for Tossing Cigarettes, Urine. *AL.com*. <https://www.al.com/news/2019/09/new-alabama-law-increases-penalties-for-littering-500-fine-for-tossing-cigarettes-urine.html>
- <sup>19</sup> City steps up enforcement of anti-litter and illegal signs law. (2013, December 13). *The Florida-Times Union*. <https://www.jacksonville.com/article/20131220/OPINION/801240814>
- <sup>20</sup> Clean PHL. (2020 October). *Don't Dump on Us: Illegal Dumping Enforcement and Prevention*. <https://cleanphl.org/illegaldumping/>
- <sup>21</sup> Keep Durham Beautiful. (2020 October). *Swat-a-Litterbug*. <https://keepdurhambeautiful.org/swatalitterbug>
- <sup>22</sup> Keep America Beautiful. (2020 October). *End Littering*. <https://kab.org/goals/end-littering/>
- <sup>23</sup> EPA Escaped Trash Assessment Protocol, [https://dpa730eaqha29.cloudfront.net/myedmondsnews/wp-content/uploads/2018/07/Reference-Manual\\_ETAP-June-2018.pdf](https://dpa730eaqha29.cloudfront.net/myedmondsnews/wp-content/uploads/2018/07/Reference-Manual_ETAP-June-2018.pdf)
- <sup>24</sup> Chattanooga Government. (October 2020). *Chattanooga Park Stewards*. <http://www.chattanooga.gov/parks/volunteer/74-parks/2882-park-stewards-opportunities>

- 
- <sup>25</sup> Huntsville Green Team. (2020 October). *Neighborhood Pride*. <https://www.huntsvilleal.gov/environment/green-team/programs/neighborhood-pride-program/>
- <sup>26</sup> Keep Durham Beautiful. (2020 October). *Adoption Program*. <https://keepdurhambeautiful.org/adoption-program>
- <sup>27</sup> Shreveport Green. (October 2020). *School Education and Outreach*. <http://www.shreveportgreen.org/get-involved/school-education-outreach.cfm>
- <sup>28</sup> Shreveport Green. (October 2020). *Neighborhood and Education Program*. <http://www.shreveportgreen.org/get-involved/neighborhood-education.cfm>
- <sup>29</sup> Litter Quitters. (October 2020). *Birmingham Litter Quitters*. <https://www.litterquitters.org/>
- <sup>30</sup> Palmetto Pride. (2020 October). *Art Contest*. <https://www.palmettopride.org/education/art-contest/>