



Arlington County Public Schools (APS) Recycling and Waste Management Progress Report







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Background and Summary

Arlington County takes pride in being one of the most progressive communities in the region when it comes to environmental sustainability, including innovative solid waste management programs. With an overall recycling rate of 46.8 percent for 2016, Arlington continues to be a leader in the Commonwealth. To further support recycling and waste reduction initiatives, the Arlington County Board recently passed a Zero Waste Resolution which aims to divert 90 percent of solid waste from landfill and incineration by 2038. The County cannot reach this goal without a strong partnership with Arlington County Schools (APS).

As part of the County's environmental initiatives, property owners in the multi-family and commercial sectors have been required by law (Arlington County Code, Chapter 10 Article IV) to have a comprehensive recycling program in place for residents, employees and tenants since the mid-1990s. Both APS and Arlington County Government are obliged to adhere to these recycling requirements in their facilities. As such, in June 2017, staff from the Arlington County Department of Environmental Services (DES)-Solid Waste Bureau (SWB) conducted recycling system inspections at APS facilities with the objective of surveying the successes and challenges of meeting the recycling requirements specified in the County Code. As part of the inspection process, SWB staff assessed the waste and recycling practices at all APS-owned or occupied buildings in Arlington. The SWB also compiled and analyzed waste disposal and recycling data provided by staff and EnviroSolutions, Inc. (ESI), the waste hauler for APS and County facilities. The inspections revealed that 30 percent of the buildings inspected were fully compliant with the recycling requirements outlined in the County Code, and determined that the current recycling rate for all of APS is estimated to be 15 percent. This report addresses the current state of recycling throughout APS with special attention to schools who are successful at recycling, as well as recognizing common recycling challenges and trends that were found among APS. In addition, this report outlines a plan for achieving compliance with the County's recycling requirements and provides solutions to common challenges, as well as recommendations for improving the design of APS' recycling program as a whole.

Environmental Stewardship Values

The SWB's waste management priorities are guided by the EPA's waste hierarchy, which aims to reduce the amount of trash being generated and disposed and, more broadly, is based upon sustainable materials management principles. This philosophy gives priority to the use and

reuse of materials in the most productive and sustainable ways across their entire life cycle. Practicing sustainable materials management conserves resources, reduces wastes, slows climate change and minimizes the environmental impacts of the materials we use.

The County has a robust single-family residential recycling program and a mandatory multi-family and commercial recycling requirement.

These programs help contribute to the



County's recycling rate of 46.8 percent, which is significantly higher than the 25 percent minimum recycling rate mandated by the Commonwealth of Virginia. The County's Zero Waste Resolution, passed by the County Board in November 2015, will further guide waste reduction programs and activities in the County.

APS also recognizes the importance of being active stewards in protecting the environment and promoting sustainability throughout the district. Sustainability is one of APS's core values, as outlined in the School Board's Policies and Policy Implementation Procedures (PIPs), which governs all APS activity. As such, APS has committed to incorporating sustainability goals into its daily instruction and school operations. The PIPs outlines several sustainability policies and goals under Operations, Facilities and Equipment, with section 50-2.2 specifically addressing solid waste and recycling practices (https://www.apsva.us/wp-content/uploads/2015/05/SBP-50-2.2-Solid-Waste-PIP.pdf).

To provide recommendations on how to achieve APS's sustainability objectives, the Superintendent appointed an Advisory Committee on Sustainability (https://www.apsva.us/aps-goes-green/superintendents-advisory-committee-sustainability). The Advisory Committee on Sustainability focuses on policies and procedures with respect to environmental sustainability and advocates for the integration of energy and environmental conservation into APS's daily operations and learning environment.

APS-Arlington County Partnership

New Trash and Recyclables Collection Contract

APS and Arlington County have, for many years, shared a trash and recycling collection contract for schools and facilities. A new collection contract, with a new hauler, was awarded to ESI on December 15, 2016. The new contract specifies services for containerized refuse and recyclables collections for select County facilities and all APS facilities. The SWB currently serves as the contracting agent for APS institutional refuse and recycling collection and disposal. Under this arrangement, APS utilizes the same contractor under the same terms and conditions as Arlington County. However, APS interfaces directly with the contractor for customer service, invoicing, and contract administration. The SWB led the rebidding of the refuse and recycling collection contract in 2016, with participation and input from APS. This contract commenced on January 1, 2017, and is effective through December 31, 2021, with the possibility for renewal for three, one-year periods until December 31, 2024, at the County's discretion.

In comparison to previous contracts for hauling services, the current contract holds the following differences:

- Refuse disposal costs are now separate from collection costs to allow both the County and APS to manage disposal costs more effectively. Under previous contracts, the disposal costs were built into the collection costs.
- As of April 1, 2017, vehicles performing collections under the contract use on-board scale systems to provide weights by container for dumpster collections and radio frequency identification (RFID) technology to provide accurate counts of cart collections. These systems allow better data tracking, performance measurement, and more accurate assessment of refuse and recycling tonnages between APS, County facilities and the broader County waste collection system.
- Under previous contracts, recyclable disposal costs or revenues were not shared between the County and APS. However, with the addition of the on-board scale system and the RFID technology, the County and APS now share disposal costs or revenues.
- The new contract has a provision for food scrap collection, which was not included in the prior hauling contract.

Current Trash Generation and Recycling Rate

Prior to implementing the new trash and recycling collection contract, APS and the County did not have access to entity-specific data. Although recycling could not be attributed to specific buildings or entity, the aggregated recycling rates for APS and the County together hovered between 14 and 20 percent in recent years. With the new on-board scales and the centralized management of service capacity and frequency, data for determining material generation and recycling rates are more readily available and dependable. Reliable data are promising for APS and the County as they can now better manage their waste and recyclable materials. The

following table provides baseline data for APS from the first five months of the ESI contract. These data are based on service levels and container capacities for January through April and scale data for May.

APS Trash and Recycling Material Generation (January-May 2017)

	Approx. # of Buildings	Approx. # of Staff and Students	Trash (tons)	Recycling (tons)	Organics (tons)	Recycling Rate
APS—ESI Service	40	28,000	876	159	N/A	15%

Multi-Family and Commercial Recycling Code

Arlington County Code, Chapter 10 Article IV requires property owners in the multi-family and commercial sectors to have a comprehensive recycling program in place for residents, employees and tenants. The Code defines a commercial establishment as "any non-residential location," including schools, churches and non-profit organizations. In January 2015, Chapter 10 Article IV of the Code was updated to require the responsible parties at multi-family and commercial establishments to provide recycling containers adjacent to trash containers in common areas where it is reasonably expected that recyclable materials may be disposed. These new Code amendments took effect on January 1, 2016.

Arlington County Multi-Family/Commercial Recycling Requirements

To be in compliance with the Code's recycling requirements, each APS facility must complete the following tasks:

- Register and submit a Trash and Recycling Plan on the County's online management tool, Re-TRAC Connect: http://connect.re-trac.com/registration/arlington-county;
- Establish a recycling system and, at minimum, collect mixed paper, cardboard, metal, glass, and plastic food and beverage containers for recycling;
- Co-locate trash and recycling containers. If a trash container is provided for use, then a
 recycling container must also be provided if it is expected that recyclable materials
 would be disposed of at the location;
- Label recycling containers to clearly distinguish them from trash containers;
- Provide educational materials to employees and other building occupants on the recycling system at least once per year. This can be in the form of a flyer, email, posters or bulletin board notices; and
- Undergo an annual recycling inspection to ensure Code compliance.

Each of these requirements are further discussed in Chapter 10 Article IV of the Arlington County Code.

Reporting Requirements

Each APS facility must have its own Re-TRAC account and maintain a current Trash and Recycling Plan on file with the County. The Trash and Recycling Plan consists of questions regarding dumpster container capacity, frequency of pickup, and identifies specific efforts to educate faculty, staff, and students about the recycling system. Plans should also include contact information for on-site staff who are most familiar with the recycling system and other sustainability initiatives.

Recycling Site Visit Details

A Recycling Outreach Specialist (ROS) visited all APS facilities and schools during June 2017 and performed a recycling system inspection in conjunction with a lead Maintenance Manager or Custodial Supervisor from each facility. When visiting each school, the ROS surveyed each independent recycling system with respect to the County Code requirements specified above. Recycling system compliance data was collected at each site and the specific results for each APS facility are available through Arlington County Solid Waste Bureau's online management tool, Re-TRAC Connect.

Trends and Findings

Of the 37 facilities inspected, 26 buildings were non-compliant in one or more areas of the recycling requirements outlined in the County Code. There were 11 buildings in full compliance with all aspects of the recycling requirements, equating to a 30 percent compliance rate. Only those buildings that were in full compliance were counted as "compliant." In other words, a school meeting five out of the eight recycling requirements is "noncompliant." The low recycling compliance rate is not surprising given the 15 percent recycling rate estimated for the first five months of trash and recycling hauler data outlined above for 2017. For context, the overall compliance rate for properties inspected for the Multi-Family and Commercial Recycling Program in 2016 was 39 percent.

The ROS staff were pleased to find that every school has a recycling system in which most every classroom has at least one recycling container. In addition, most schools have an abundance of recycling containers located throughout the facility. However, administrative offices and miscellaneous common areas at several schools lack full recycling co-





Figure 1. Blue "trash" containers at separate schools

location with trash cans. Multiple schools also have blue plastic outdoor trash containers that create confusion given the common association of blue containers with recycling (see Figure 1). County staff noticed that most schools received an order of at least two blue outdoor Victor Stanley-style recycling cans and black trash cans to be installed during the summer months. These black and blue receptacles bring consistency in prompting recycling activity, as most of the County's parks and bus shelters have the same color and style of trash and recycling containers (see Figure 2).



Figure 2. Example of Victor Stanleystyle recycling and trash containers

Few schools have a successful recycling system in the cafeteria. Custodians at several schools reported that they removed the recycling altogether from the cafeteria due to excessive recycling stream contamination and a lack of monitoring and support from teachers and cafeteria monitors. In several schools, students are instructed to separate the paperboard lunch trays for recycling while throwing all other items away in the trash. Additionally, many school kitchens lack recycling in the kitchen area aside from breaking down and separating cardboard boxes.



Figure 3. Cafeteria recycling with cross contamination.

That said, the maintenance and custodial staff of APS facilities demonstrated not only a comprehensive and attentive approach to establishing and maintaining functional recycling and waste management systems, but also communicated detailed and nuanced suggestions and observations regarding the challenges and successes of the recycling program at their respective schools. In contrast, the ROS staff found that a commonly held belief among APS teachers and faculty is that the custodial staff do not properly separate recycling from trash. Due to this misconception, the trend among APS recycling programs at many schools is poor recycling participation and disengagement by the faculty and staff. This is a common challenge among institutional and commercial recycling programs.

In many classrooms, the trash and recycling containers are not paired and thus students utilize whichever container is the closest to dispose of all waste, creating contaminated classroom recycling streams. Recyclables are found in the trash containers throughout many school facilities, especially in hallways where recycling containers exist without a paired trash can and in cafeterias. The administrative offices at several schools commonly lack full co-location, often with one centrally located recycling receptacle near the printer and single trash cans located underneath each desk, office and cubicle. Significant amounts of paper waste are oftentimes generated at desk areas and can easily be captured for recycling rather than disposed as trash.

Several custodians disclosed that teachers and faculty have either directly communicated a

refusal to recycle and/or faculty and staff are generally careless in respect to properly separating recycling from trash and educating their students about proper participation in the recycling system. Yet, at many schools, a single teacher has taken the initiative to champion recycling through activities such as organizing a group of students to service the school's recycling receptacles each week.

Excluding a few outliers of success, APS middle and high school facilities have far less recycling participation than that of the elementary schools. While recycling signage is lacking at a majority of the APS facilities, some elementary schools have recycling posters and signage with instructions regarding recyclable materials. A best practice for recycling program success is standardized and clear signs. At some facilities, custodial managers have created their own signage to indicate recycling in key areas such as cafeterias, print production rooms, and libraries (Figure 4).

Furthermore, faculty, staff and students throughout many schools lack an attention to detail when attempting to implement effective recycling practices. Increased awareness of best practices can easily improve the success of the recycling system. For example, at many schools both trash and recycling receptacles use the same colored bags which can create a challenge for the custodial staff, as well as impede receptacle users from easily distinguishing between trash from recycling containers.





Figure 4. Examples of recycling containers at APS facilities.

Finally, many schools still have a container for co-mingled cans and bottles and a separate container for paper materials, a residual from the dual-stream collection program that was in

place many years ago. This practice is more common in the middle and high schools, although the large square bins with the circle tops (indicating bottles only) are used system-wide for collecting all single stream or mixed recycling.

APS Recycling System Challenges

One of the major challenges to a successful recycling program among APS facilities is the lack of standardization. Standardizing containers and signage in the recycling systems across APS facilities would reinforce consistent recycling practices to staff, students, and visitors. In cafeterias, for example, many schools do not have a clear and simple recycling system that can be easily implemented by teachers, lunch monitors, and custodial staff. A lack of clear and easy to understand visuals that indicate which items are accepted in the recycling can be a major deterrent to a clean recycling stream, as well as hinder participation in the recycling program. While most of the recycling receptacles used throughout APS facilities are labeled, the recycling symbol is often only indicated on a single side of the container. When these recycling receptacles are serviced, the receptacle can be easily turned to obstruct the visibility of the recycling label, as indicated in Figure 5. Without additional signage paired with recycling

containers (particularly in cafeterias, kitchens and hallways), it is a challenge to consistently communicate to faculty, students, and visitors that the receptacle is intended for recycling.

One of the largest challenges found in the APS recycling program, and reiterated by the custodial/maintenance staff, was the lack of clear administrative standards and policies concerning a recycling culture campus-wide. Furthermore, staff appears unaware that APS facilities are required to comply with the recycling requirements outlined in County Code Chapter 10 Article IV. The lack of



Figure 5. Cafeteria recycling: example of container with hidden recycling symbol

administrative directives to teachers and faculty reinforcing recycling requirements and recycling education in the classroom and during lunch sessions is also problematic. An additional challenge to a successful recycling program is determining appropriate incentives to encourage active recycling participation among staff, students, and custodial workers.

Successes and Best Practices

Multiple schools in the APS system demonstrate some best practices and successful strategies to maintaining a successful recycling system. Schools in which one or a few teachers took the initiative to coordinate a student recycling club that actively services the recycling receptacles have high levels of recycling participation and low levels of contamination. The custodial staff

reported working well with the student-teacher recycling groups and appreciate the support in managing the recycling system. Some of the recycling best practices observed are described below.

- Campbell Elementary School presented an example of the co-location of trash and recycling receptacles throughout the facility, as well as effectively utilizing educational posters above recycling receptacles (Figure 6). This obvious effort to connect students to environmentally-conscious behaviors resulted in a clean recycling stream with little contamination. The presence of an extensive school garden and thoroughly implemented recycling system throughout the school demonstrated the school's culture of and commitment to sustainability.
- Carlin Springs Elementary School is another example of a successful cafeteria recycling system with a relatively clean recycling



Figure 6. Campbell Elementary recycling signage.

stream (Figure 8). Schools with similarly clean cafeteria recycling streams have a clear system for separation with reinforcement and monitoring by teachers and other staff members. Several successful cafeteria recycling systems also had simple signage located near the recycling receptacles.







Figure 8. Carlin Springs Elementary cafeteria, example of recycling with little contamination.

 Discovery Elementary School is another model of a well-implemented and successful recycling program. As a Science Technology Engineering and Math (STEM)-focused school, Discovery aims to be a net-zero energy facility where sustainability is built into the curriculum for all grades. Students, despite their young age, are very aware of the importance of waste diversion and reuse.

Recycling, reuse and waste diversion concepts are integrated not only into school curriculum—recycled art projects are proudly displayed throughout the school—but also in the design and function of the larger waste management system of the school. At Discovery, each trash container on the property is accompanied by a well-labeled recycling bin. Each printer station has a scrap paper holder, encouraging the paper to be reused before it is recycled. Information about recycling and other environmental sustainability initiatives are posted throughout the school. This holistic appropriately and waste diversion is an easy priority.

posted throughout the school. This holistic approach to recycling and waste diversion is an easy priority in a STEM-focused education, but each public school in Arlington has the opportunity to mirror the approach Discovery Elementary has taken to incorporate recycling, and waste diversion into the culture of the school.

Yorktown High School also has excellent recycling and trash signage attached to each container inside the school. These posters were created by a recent Yorktown graduate and show common items found in the waste stream and indicate the appropriate container for faculty and students to use for discarding materials (Figure 9). To measure the success of this program, the student organized and facilitated a waste audit with County staff and volunteers from Arlingtonians for a Clean Environment (ACE) prior to and after the container colocation and standardized sign project was implemented. Results of these waste audits showed a marked decrease of recyclables disposed in the trash containers at the end of the year, as compared to the beginning (see Attachment 1).

Recommendations

The SWB has been working with APS for several years to come into compliance with the County's recycling requirements. APS has made some strides but, as evidenced by this report, still has work to do in order to achieve Code

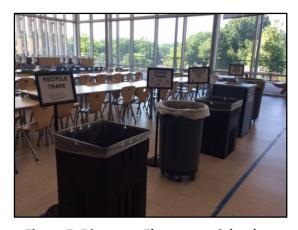


Figure 7. Discovery Elementary School cafeteria recycling.





Figure 9. Yorktown High School recycling and trash signage.

compliance and ultimately create successful recycling programs system-wide. The remainder of this report focuses on necessary steps to achieve compliance with the recycling code, as well as additional recommendations for achieving even higher waste diversion system-wide.

<u>Immediate Next Steps</u>

At a minimum, APS needs to embark upon several crucial tasks, as described below, to ensure compliance with the Code.

Identify who is the Responsible Party for developing, maintaining and adhering to each facility's Trash and Recycling Plan. Currently, APS only has one representative—housed in Facilities and Operations Management—who is responsible for ensuring all schools and facilities are informed, provided resources, and adhering to County recycling regulations. Under the current structure, this is not sustainable; managing the recycling and waste reduction activities for an entire system the size of APS is nearly a full-time job for one person. The SWB recommends that Facilities and Operations decentralize the recycling responsibilities to one representative at each school/facility. This individual can be the principal, the head custodian, or an appointed sustainability coordinator assigned to the school, but this person should be knowledgeable about the trash and recycling system.

Ensure each facility has co-located trash and recycling containers with adequate labels and signage. Areas covered by this requirement include interior trash and recycling bins in hallways, gyms, cafeterias, offices and classrooms, as well as outdoor public spaces such as football fields, concession stands, bleachers and picnic table areas. Recycling containers must also be made available during special events held at schools such as theater productions, fundraisers, and community meetings.

Register in Re-TRAC and develop Trash and Recycling Plans for each APS facility. As part of the recycling requirements, each facility must have its own Re-TRAC account and Trash and Recycling Plan on file with the County. Once the Responsible Party is identified, this person will be the primary contact for the SWB and will be responsible for establishing and managing the Re-TRAC account and filling out the Trash and Recycling Plan. Each individual school or facility's inspection report can also be found within Re-TRAC.

Conduct recycling education to all faculty and staff prior to the upcoming 2017-2018 school year. As part of the Code requirements, all building occupants must be educated about the County's recycling requirements on a yearly basis, at a minimum. SWB staff is willing and able to partner with APS to conduct short presentations to staff about recycling requirements and best practices and provide educational materials and templates that can be easily adapted and implemented by APS staff.

Beyond Mandatory Recycling: Additional Sustainability Initiatives

As mentioned at the beginning of this report, the County adheres to the EPA's waste hierarchy. Although not mandated by the County, the additional activities described below can have an even greater impact on fostering a zero-waste community.

Update the School Board's PIPs to incorporate specific recycling goals and to outline the County's recycling requirements. APS is currently in the process of updating all of their policies in the Operations, Facilities and Equipment section of the PIPs. Identifying a specific recycling goal and incorporating minimum recycling requirements into the PIPs provides legitimacy and justification for allocating resources and effort into improving waste diversion across APS.

Begin compiling metrics related to recycling and waste management within APS. The old adage holds true when it comes to tracking waste reduction success: "You can't manage what you can't measure." With the new scales installed on the recycling and trash collection trucks, obtaining reliable data is now easier. Implementing and tracking recycling and waste reduction programs and activities not only increases the recycling rate, but can also demonstrate cost savings associated with these programs. Important statistics to track include the recycling rate (calculated as tons of recycled material divided by the total tons of material generated, i.e. trash + recyclables). Avoided disposal costs due to diverting recyclable material from the trash to recycling container should also be tracked, as well as the increased savings associated with recycling service as compared to trash. Also, metrics can be used to motivate individual schools to increase their own recycling rate or to tout their sustainability efforts. As part of the initiative to be more transparent, the County plans to provide County facility data on its website, beginning first with an aggregate recycling rate of all facilities, but eventually as individual building data. This reporting will not include school data, but APS may wish to consider a similar disclosure.

Install standardized trash and recycling containers within all APS facilities. Greater attention to container functionality and consistency is key for recycling system success. Recycling containers with large open lids are ideal given the single-stream collection system. Regular reinforcement of recycling practices via standardized containers, signage and presentations to APS facilities' staff—including administrators, teachers, cafeteria and custodial—is necessary to ensure all staff and students are aware of what is accepted in the recycling system. Figure 10 displays a type of co-located trash and recycling container that is present at many of the schools.

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Figure 10. Example of co-located trash and recycling containers.

Use different colored bags for collecting trash and recycling. Differentiating trash from recyclable materials by using different colored bags for trash and recycling receptacles not only indicates to the custodial crew the difference between the two material types, but also reinforces to receptacle users the difference between the waste streams. This simple change in the recycling system also provides transparency to observers that recyclable materials are separated from trash and actually placed in the proper container for recycling, helping to reinforce that the recycling system is functional and effective.

Implement creative solutions for reusing or donating unwanted materials. As these audits were conducted at the end of the school year, many items that could be repurposed or donated were found in both the trash and recycling bins. Commonly disposed items observed include gym clothes and shoes, reusable water bottles, binders, books, locker storage items, and so forth. To keep these materials out of the waste stream, the SWB recommends that the APS community (including the parents of students and volunteers) be educated about waste diversion opportunities. Implementing a standardized system of material reuse for the next school year and/or establishing partnerships with local organizations that resell gently used items—such as the Salvation Army or Goodwill—can help keep these items out of the waste stream.

Develop large standardized posters and signage (especially cafeteria-specific signage) in English and Spanish throughout all APS facilities. Providing a consistent message among all APS students, staff and visitors is also important for successful a recycling system. Aside from meeting County Code requirements for proper signage, effective signage provides opportunities for "teachable moments" as it relates to APS's role in recycling and sustainability efforts. SWB staff are currently working with APS Facilities and Operations to develop a standardized poster that can be used system-wide and plan to have this available by August 2017.

Develop a recycling curriculum appropriate to each age or grade level. APS currently incorporates sustainability concepts when it comes to energy conservation; however, the importance of recycling and waste reduction activities should also be incorporated into the curriculum, as appropriate. Discovery incorporating recycled or reused materials in their art projects is an example creatively employing this concept (Figure 11).



Figure 11. Recycled art project display at Discovery Elementary School.

Consider implementing organics collection, converting cafeteria food scraps into usable compost. Several schools have expressed interest to the SWB about creating a food scrap collection program. The current collection contract allows for composting collection to be implemented for APS and County facilities. Currently, only the County's Detention Center has food scrap collection service through the ESI contract. The SWB is currently working with Abingdon Elementary to develop a program for collecting their cafeteria food scraps to go the County's in-vessel composter located at the SWB. This composter has limited capacity, but it may be possible to implement a similar program at a limited number of other schools or facilities in APS. Taylor Elementary School and Discovery Elementary have both expressed interest in starting a composting program. The SWB recommends that APS use this report and the success stories of schools who are currently participating in a food waste diversion program as a catalyst for planning a standardized food waste diversion and collection system among APS schools. Given the provision in the new hauling contract for APS and County facilities, the SWB recommends that APS consider future planning to incorporate organics collection and food waste diversion across schools.

Change procurement practices to prioritize bulk purchasing with particular attention to materials purchasing with minimal packaging waste. Bulk purchasing for cafeteria items is an area where a great deal of waste could be eliminated. For example, providing a utensil and napkin dispensers rather than a pre-packaged fork-spoon-napkin combination allows students to select only the items they need. Providing a whole apple is preferable to packaged apple slices. Eliminating unnecessary packaging is also key in facilitating successful food scrap collection in the future, as this type of packaging is one of the most prevalent contaminants in food scraps collected for composting.

Promote onsite gardens as a way to incorporate composting activities. Some schools already have gardens onsite and are composting on a small scale. The ROS staff noted that often schools that actively maintain a garden also have high rates of recycling participation and lower rates of recycling





Figure 12. Examples of gardens located at school grounds.

stream contamination. Several resources exist, such as the Cooperative Extension and Friends of Urban Agriculture, to assist schools in planning and maintaining a garden onsite.

Promote and facilitate implementation of a Food Bus Program at each school. A handful of elementary schools, including McKinley, Barrett, Tuckahoe, and Arlington Science Focus, have implemented a Food Bus program in partnership with the Arlington Food Assistance Center (AFAC). The mission of Food Bus is to "promote food recovery for the sake of alleviating hunger by collecting unused and unopened food leftover from elementary school lunches and distributing it to food pantries." Barrett Elementary, where 54 percent of the students qualify for free or reduced price lunches, has developed a system where they offer food to their needy families first and then deliver all leftovers to AFAC. Not only does AFAC receive nutritious food that is often hard to come by for food pantries, Food Bus helps to keep food resources out of the waste stream. Tuckahoe Elementary has reported over 4,000 pounds of food diverted from their waste stream since they began the Food Bus program two and half years ago.

Promote sustainable program management with special attention to managing, tracking and facilitating recycling and waste reduction activities across APS. To meet sustainability goals, APS has an Energy/Stormwater Management Program Administrator position solely dedicated to managing the energy and stormwater objectives across the school system. However, recycling and waste management does not have the same commitment. As mentioned previously, the workload associated with these activities is nearly a full-time job for a system the size of APS. Finding a way to solicit and coordinate assistance from the appointed sustainability coordinators or liaisons present at several schools can help in this endeavor. With assistance of APS facilities staff, sustainability liaisons should take ownership of prioritizing sustainability initiatives at their school and communicating what resources are necessary for achieving sustainability goals.

Conclusion

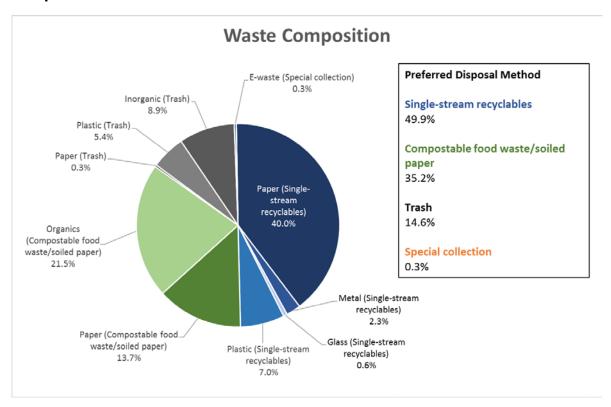
Arlington Public Schools were found to have many successes as well as some challenges with maintaining a recycling program across facilities with minimal contamination and active recycling participation. With the findings and recommendations outlined in this report, the SWB seeks to work in closer partnership with APS to build a sustainable and efficient recycling and waste diversion program. This report offers solutions to common barriers that hinder recycling and waste diversion among APS facilities. Although each APS facility has unique circumstances or challenges to implementing an improved recycling system, the ROS staff found that there are many common challenges that can be addressed through standardized solutions. In addition, the SWB suggests that APS replicate best practices from facilities with successful recycling and waste reduction programs across the APS system. Facilities/Custodial managers at these

facilities should be consulted as well to relay the particulars that have led to success in their waste management system design.

APS and the County are successfully working together to implement the new collection contract. The SWB recommends expanding this partnership and soliciting the help of SWB staff to ensure APS is, at a minimum, in compliance with recycling code for the upcoming school year.

Attachment 1

September 2016 Yorktown Waste Audit Results: Material Found in Trash



May 2017 Yorktown Waste Audit Results: Material Found in Trash

