

Solid Waste Management

LOB #352:

RECYCLING PROGRAM

Purpose

The Recycling Program, managed by the SWMP, is one part of the County's overall strategy for the management of solid waste generated by residences and businesses in Fairfax County. This overall waste management strategy must create (at a minimum) a solid waste disposal and recycling plan that protects public health, public safety, the environment, and natural resources. Plans must also be environmentally-sound using resources in the most efficient and effective way, which includes recycling as a major component.

The SWMP developed and currently manages the system for the proper disposal and recycling of wastes generated in Fairfax County including:

- Overall management of solid waste reduction and recycling programs;
- Plans for future recycling programs and waste reduction systems; and,
- Ensuring that disposal capacity remains available for wastes by reducing the amount of waste sent for disposal through recycling programs that divert reusable or recyclable items from the waste stream to avoid disposal.

As part of the Fairfax County recycling program, the SWMP operates six unmanned Recycling Drop-Off Centers (RDOCs) throughout the County and two manned locations at the I-66 Transfer Station and the I-95 Landfill Complex.

These facilities are served by County staff using County equipment at the locations below.

ABC Store in Annandale	Mt. Vernon RECenter
Blake Lane	Reston Park and Ride
McLean Bible Church	Wakefield Park

Since curbside collection of recyclables was established by County ordinance in the mid-1990s, the RDOCs have been maintained to provide additional opportunities for recycling quantities generated by small businesses and residences.

Description

The SWMP provides effective management of solid waste recycling, collection, transfer and disposal of wastes generated within the County through the operation of existing programs and implementation of the Fairfax County 20-Year Solid Waste Management Plan (required by code and required by state regulation). Solid waste management planning, as directed by the Virginia Department of Environmental Quality (VDEQ), includes the requirement to establish recycling programs within jurisdictions. The SWMP has been directed to provide solid waste management activities in the County and recycling is one of those activities. Recycling, in combination with waste disposal, provides the entire framework upon which the orderly management of wastes in Fairfax County relies.

Recycling Programs in the County are conducted in several ways:

- Through the implementation of the Fairfax County Solid Waste Management Ordinance, Chapter 109.1; this requires that residents and businesses source-separate recycling from refuse so that it can be collected separately and transported to a recyclables processing facility for processing and eventual sale;

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- Single-family, multi-family and town houses that receive weekly curbside collection of refuse must also receive weekly collection of both recyclables and yard waste;
- Businesses are also required by code to recycle paper and cardboard at a minimum;
- Implement comprehensive education and outreach programs to ensure that residences and businesses know what is required to be recycled and how that is accomplished; and,
- Operation of the County's eight recycling drop-off centers where residents and businesses can deposit their recyclables.

Recycling Outreach and Education – The SWMP is involved in comprehensive education and outreach programs conducted by the DPWES. This includes the development of all print materials as well as web-based communications, events, community meetings and presentations, tours of facilities and other educational tools and activities.

Benefits

The benefits of the Recycling Program in Fairfax County include the following:

- Works cooperatively and interactively with the solid waste disposal program to ensure that waste generated in the County is managed according to federal and state environmental regulations and ensures that sufficient waste disposal capacity is always available for waste by preventing the disposal of materials that can be legitimately recycled.
- Provides a significant pollution reduction program by preventing the disposal of items into the County's disposal system that can be recycled. This includes the recycling of motor oil, antifreeze, used cooking oil and certain household hazardous wastes in addition to traditional recyclables.
- Ensures that the County complies with state regulations specific to the management of waste generated in the Commonwealth.
- Two manned RDOC locations are integral parts of the waste management services provided at the County's two solid waste management facilities.
- Presently, the unmanned RDOCs are used only to augment recycling collection services that are required to be provided to residents by collection companies operating in the County.

Mandates

Recycling is mandated in the Commonwealth of Virginia. Jurisdictions in Virginia are required to have an approved 20-Year Solid Waste Management Plan. These plans must be developed identifying what the jurisdiction will do to recycle waste generated within the individual jurisdiction for a 20-year period. These plans must be updated every five years to ensure that the jurisdiction knows what will happen to wastes generated within their borders for a 20-year period.

- **9VAC-20-130-30** - Virginia Administrative Code states that jurisdictions must develop comprehensive and integrated solid waste management plans that consider and address the Commonwealth's solid waste management hierarchy which prefers recycling to disposal;
- **Code of Virginia § 10.1-1411(D.1)** and **(E)**- Jurisdictions that meet certain seasonally-averaged population statistics must recycle at least 25 percent of all solid waste generated within their borders; and, jurisdictions with more than 100,000 residents must prepare a recycling report annually which quantifies the entire amount of recycling conducted in the County.

The service provided by the RDOCs is one of a variety of techniques used to collect recyclables. The facilities are not mandated by local, federal or state law or regulations.

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Trends and Challenges

Trends

- Recyclables are sold on the commodities market, and revenue is generated from the sale of recyclables. Commodity prices have had wide variations in the past several years due to worldwide economic conditions; revenue generated by the sale of recyclables has also shown a similar variation due to dramatic price swings. As this trend is anticipated to continue, improved methods to enhance revenue generated by the sale of recyclables are being explored.
- Residents continue to desire additional recycling for waste generated. However, there is a distinct lack of recyclables processing capacity. The most notable example is the desire for food waste composting. The SWMPs ongoing waste disposal partner Prince William County is currently developing a food waste composting capacity that Fairfax County may be able to utilize in the future.
- During the past decade, the quantities collected at the RDOCs have decreased approximately 50 percent from 6,000 tons per year to nearly 3,000 tons per year. This is attributed to the fact that all residents receive weekly collection at their residences as required by Fairfax County Code.

Challenges

- Since Fairfax County does not own or operate a recyclables processing facility, the County must contract with private vendors for these services. These facilities continue to raise processing costs and complexity, make it more complicated and costly;
- Single-stream collection of recyclables in one container has increased recycling volume and brought down the cost of collecting recyclables. However, it contributes to lower quality of recyclables collected, thereby reducing their ability to be sold as a commodity. One example includes the impact of collecting glass with other recyclables. Glass is virtually valueless as a commodity (i.e., it is difficult to sell due to its low value). However, its presence degrades the quality of other recyclables, especially paper which can be sold if it maintains its quality during the collection process. New techniques to collect glass separately from other commodities are being explored; and,
- Funding to serve the six unmanned RDOCs is provided by the fees charged by the SWMP to dispose of waste at either of its disposal facilities. This funding could be better used to fund other programs operated by the SWMP that do not create revenue, namely, household hazardous waste, electronics recycling and document shredding.

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Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
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FUNDING			
<u>Expenditures:</u>			
Compensation	\$1,175,869	\$1,069,155	\$1,428,064
Operating Expenses	1,186,443	383,981	1,037,882
Capital Equipment	158,950	0	0
Total Expenditures	\$2,521,262	\$1,453,136	\$2,465,946
Total Revenue	\$1,774,405	\$1,348,561	\$1,612,628
POSITIONS			
<i>Authorized Positions/Full-Time Equivalents (FTEs)</i>			
<u>Positions:</u>			
Regular	12 / 12	12 / 12	11 / 11
Total Positions	12 / 12	12 / 12	11 / 11

Metrics

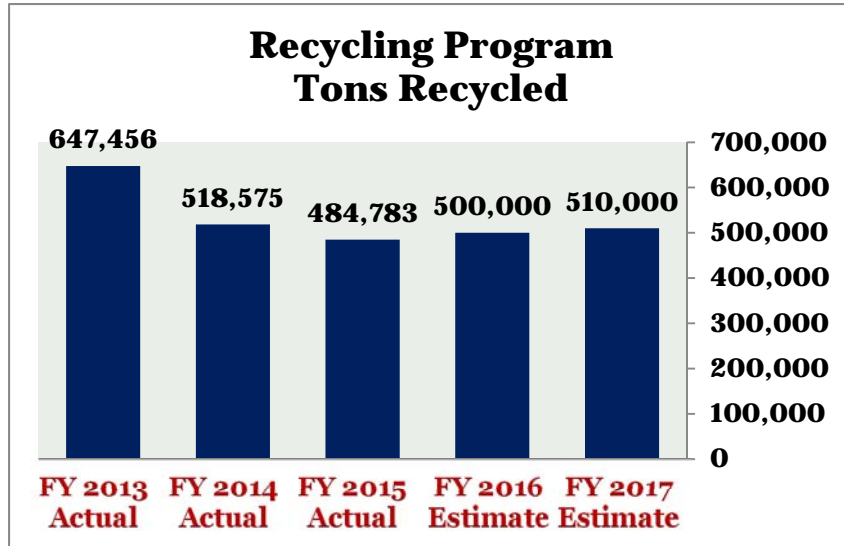
Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual or	FY 2016 Estimate	FY 2017 Estimate
Total Tons recycled	647,456	518,575	484,783	500,000	510,000
Disposal cost avoidance by recycling (\$ in millions)	\$34.30	\$28.00	\$26.20	\$27.00	\$28.00
Percent of residential recycling customers rating services good/better	94.0%	96.3%	97.9%	97.0%	97.0%
Total County recycling rate *	51%	48%	48%	50%	50%

* Actuals for each fiscal year reflect data as of the end of the previous calendar year as required by state regulations.

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Recycling Program - Tons Recycled

Recycling in Fairfax County remains strong with respect to public participation and this is anticipated to continue. On the average, about 500,000 tons of recyclables are generated each year from businesses and residents in the County. This amount includes about 200,000 tons of yard waste collected in the County.

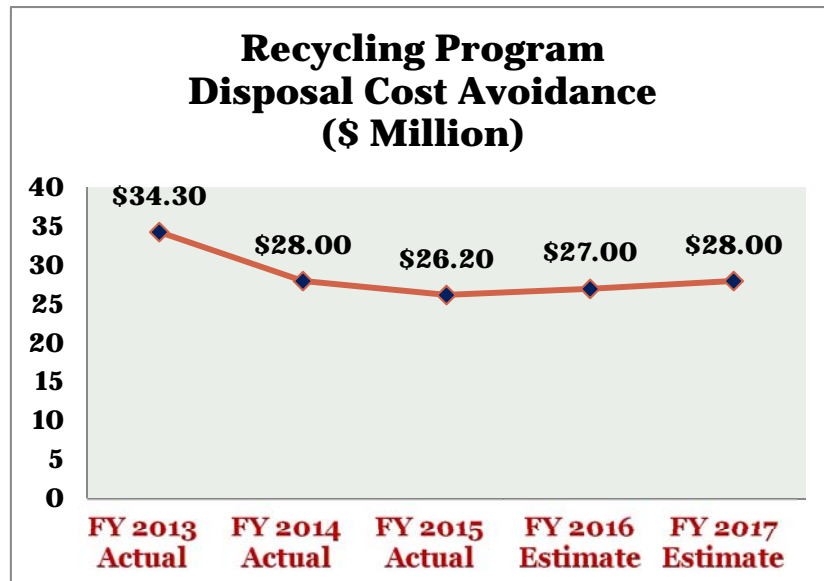


Recycling Program - Recycling Rate

The Fairfax County SWMP works to promote recycling throughout the County. Virginia law requires large Virginia jurisdictions to recycle at least 25 percent of their solid waste. Since 1999, Fairfax County has exceeded this requirement and for the past three years, the County has recycled almost double the required amount. Recycling is anticipated to remain strong for the next decade as demand for additional recycling services is also expected to increase.

Recycling Program - Disposal Cost Avoidance

Prices for the sale of recyclables collected by the County have improved over the past fiscal year due to the diligent efforts of staff to find other recyclables processors. The factors that restrict performance are primarily a lack of recyclables processing competition in the region and the impact of single-stream collection. Recyclables collected using the single-stream collection technique requires additional and more expensive processing to make products that can be sold. The additional processing costs result in lower revenue being generated when the processed recyclables are eventually sold. Processing costs are expected to continue to increase over the next several years.



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The SWMP has worked throughout the past year to find alternative markets for the processing of recyclables collected by the County. While prices for processing of recyclables have been reduced by using a variety of processors, commodities market variability continues to impact the revenue generated from the sale of recyclables after processing. Recycling materials continues to be less expensive than disposal. Based on economic fluctuations, the SWMP is anticipating a significant variability in market prices for recyclables. The variability in market prices for processed recyclables most likely will continue for several years. None of the northern Virginia jurisdictions own or operate their own recyclables processing facility. They all use the same processing facilities and are reporting significantly depressed prices for the sale of recyclables, especially glass.