

Rappahannock Regional Solid Waste Management Board Annual Financial & Operational Report

Fiscal Year 2021





Rappahannock Regional Solid Waste Management Board

489 Eskimo Hill Road • Stafford, Virginia 22554 • 540-658-5279 • FAX 540-658-4523

Contents

R-Board Members.....	3
Figures and Tables	4
Mission and Vision	5
Virginia Environmental Excellence Program	6
Operational Overview	7
Regulatory Overview.....	8
Employee Achievements and Accolades	9
Operational and Financial Performance	10
Financial Summary (Unaudited)	12
Weight and Material Summary.....	13
Portfolio Composition	14
Recycling and Diversion	15
Household Hazardous and Electronic Waste Collection.....	19
Litter Control.....	20
Community Outreach and Education	21



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R-Board Members

Matthew J. Kelly
Chair
Fredericksburg City Council, At-Large
715 Princess Anne Street
Room 208
Fredericksburg, VA 22401

Cindy Lamb
Stafford County Supervisor
Aquia District
P.O. Box 339
Stafford, VA 22555-0339
cindylamb@staffordcountyva.gov

Meg Bohmke
Vice-Chair
Stafford County Supervisor
Falmouth District
P.O. Box 339
Stafford, VA 22555-0339
mbohmke@staffordcountyva.gov

Consultants

Ken Bannister, PG
Draper Aden Associates
8090 Villa Park Drive
Richmond, VA 23228
P: (804) 264-2228
F: (804) 264-8773
www.daa.com
kbannister@daa.com

Timothy J. Baroody
Fredericksburg City Manager
715 Princess Anne Street
Room 203
Fredericksburg, VA 22401
540-372-1010

R-Board Attorney

William H. Hefty, Esq.
Brendan Hefty, Esq.
Hefty & Wiley, PC
Old City Hall
1001 East Broad Street
Suite 230
Richmond, VA 23219
billhefty@verizon.net

Fred J. Presley
Stafford County Administrator
1300 Courthouse Road
3rd Floor
Stafford, VA 22554
540-658-4541

William C. Withers, Jr
Fredericksburg City Council
Vice Mayor, Ward 2
715 Princess Anne Street
Room 208
Fredericksburg, VA 22401



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Figures and Tables

Figure 1 Residential User Fee Revenue	10
Figure 2 Point of Sales	11
Figure 3 Portfolio by Asset	14
Figure 4 Single Stream Recyclables	17
Table 1 User Fee Transaction & Revenue	11
Table 2 Financial Summary (Unaudited)	12
Table 3 Weight and Material Analysis	13
Table 4 Portfolio Composition	14
Table 5 Recycling Audit Data	18



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Mission and Vision

R-Board Mission

The mission of the Rappahannock Regional Solid Waste Management Board (R-Board) is to provide professional, courteous, and intelligent service and solutions to the waste disposal needs of citizens residing in Stafford County and the City of Fredericksburg.

R-Board Vision

The R-Board's vision is to operate the best landfill in Virginia. Being the best landfill includes environmentally sound solid waste management policies and having an active Reduce, Reuse, and Recycling program, all coupled with outstanding customer service. The R-Board intends to continually strive to be a leader in the waste management industry and to set an example for others to emulate.



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Virginia Environmental Excellence Program

The R-Board Regional Landfill remains an E3 certified facility within the Virginia Environmental Excellence Program administered by the VA Department of Environmental Quality. In order to be qualified as an exemplary environmental enterprise, a facility must have a good compliance history, a fully implemented environmental management system, and demonstrated performance.





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Operational Overview

COVID-19

The landfill was deemed an Essential Business during the COVID-19 restrictions and closures. As a result, there were no adjustments implemented to the commercial operations; however, the residential convenience centers were closed Sundays and Mondays starting in April 2020. The residential center closure was due to a decrease in workforce labor of about 250 hours per week as the Stafford County Detention Center implemented procedures to restrict the possibility of contracting COVID-19 within the detained population. The residential convenience centers resumed normal hours beginning March 1, 2021. The R-Board Administrative Office staff were allowed to return to the office on March 1, 2021. Staff was instructed to maintain social distancing and mask guidelines. Administrative staff also assisted in the preparation of personal protection equipment (PPE) to be distributed weekly to all staff. In addition, staff was encouraged to get the COVID-19 vaccination. Vaccinations were provided by Stafford County Fire & Rescue through a vaccination clinic; several R-Board staff assisted in these efforts by providing support and logistical assistance on clinic days.

EQUIPMENT

There was no equipment purchased due to the effect of COVID-19 and all finances for equipment were reallocated in the budget to help cover the cost for PPE and site modification to maintain social distancing.

RENOVATIONS

The R-Board had various renovation projects this fiscal year. In the Administrative office, we converted what use to be a dog washroom into additional office space for our Landfill Scalehouse Maintenance Manager. Staff also constructed a wall to close off an existing office space that is currently being utilized by our Environmental Technician.

Our Scalehouse also received some upgrades with the addition of a new water line that was put in during the installation of the wheel wash. We were then able to renovate the existing restroom and install a new toilet and sink for staff to use in place of a porta john. This required pulling building permits with the county and approval from the Virginia Department of Health for the temporary use of a 300-gallon septic tank.



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The former superintendent's office and break room were renovated with the installation of fiber reinforced roof coating, new gutters and downspouts on the exterior, and new insulation, FRP paneling, and ceiling tiles on the interior. It is now an office for our Assistant Superintendent of Operations, and a break room for our Heavy Equipment Mechanics.

We also replaced our existing gatehouse with a new 8x10x7 shed from Absolutely Amish Structures. This was a major upgrade for our gatehouse attendants and included a concession's style window for them to more easily interact with residents.

Regulatory Overview

The R-Board maintains several permits with the VADEQ and federal regulatory agencies. These Permits are the Solid Waste Permit (SWP) that covers groundwater, landfill gas, and leachate monitoring programs; Title V Air permit that covers emissions per the Clean Air Act; Virginia Pollutant Discharge Elimination System (VPDES) that covers stormwater; and the U.S. Fish and Wildlife Bird Depredation Permit.

Solid Waste

Cell F3 became operational on March 8, 2021.

Air Permit

Continued review of the Title V Permit was being completed throughout FY2021. These permit revisions and renewals are ongoing and will be completed in FY 2022.

Stormwater

Stormwater sampling is required twice a year. The R-Board has four VPDES permitted stormwater ponds and outfalls to sample. Field measurements indicate that the naturally occurring runoff is acidic due to the acid sulfate soils present on the property.

The Regional Landfill must comply with numerous additional state and federal regulations requiring constant vigilance and continuing education of our staff. We constantly review procedures to better position our operations to stay in compliance.



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Employee Achievements and Accolades

The R-Board continues to encourage and support employees as they seek certifications and continuing education to improve their skills and knowledge. The following are courses and training staff has participated in:

- Customer Service Training (Cornerstone)
- 2021 Unauthorized Waste Training (Cornerstone)
- SCS Engineers 28th Annual Virginia Landfill and Solid Waste Seminar (Credits received)
- VA DEQ Stormwater Program Administrator (Certification received)
- VA DEQ Erosion and Sediment Control/Responsible Land Disturbance (Certifications received)
- First Aid, CPR, & AED Training (Certifications received)
- Mental Health First Aid Training (Certifications received)
- Various COVID-19 Safety Policies & Procedures

The R-Board appreciates and recognizes the following employees for significant milestones of their years of service with the R-Board and Stafford County:

- Ricky Markwardt- 15 years
- Michael Whitt- 10 years
- William Graham- 5 years
- Jeremy Ellis- 5 years
- Stephen Hall- 3 years
- Hope Mikelson- 3 years
- Barbara Miller- 3 years
- Michael Wolfrey- 3 years

The R-Board recognizes and welcomes the following employees hired in FY2021:

- Chris Hoover
- MacKenzie Bellimam
- Mary Ann Coulombe
- Katie Moncure
- Adam True
- Julius Peters-Brandon
- Donnie Morrow
- Tim Pickett
- James Sisk
- Liam Christensen



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Operational and Financial Performance

Residential Usage Fee

The R-Board does not receive tax funding. Residential user fee revenues are used to assist with costs to manage residential use areas. The R-Board manages two such facilities, Eskimo Hill Rd. and Belman Rd. drop-off sites. Residential user fee options are as follow:

- One-time pass \$5
- Coupon book \$40 (never expire)
- Annual pass \$120 (passes are effective from January 1st to December 31st.)
- Oversize residential loads \$20 (for trailers over 8' long)

In addition to oversize residential loads, the \$20 fees include commercial loads that are estimated to be less than half a ton. Overall Residential fee revenue increased from FY2020 \$760,665 to FY2021 \$823,590.

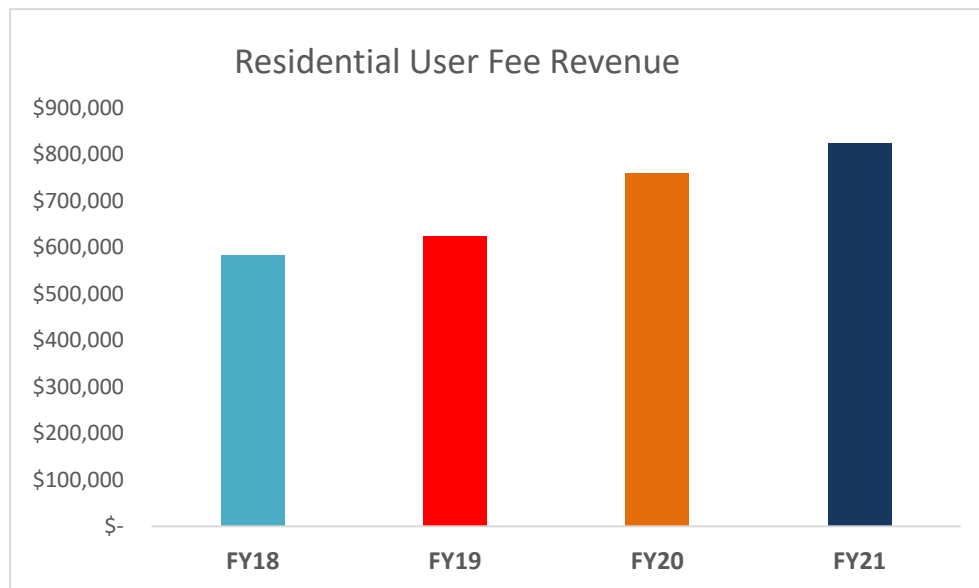


Figure 1 Residential User Fee Revenue



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Sales opportunities are available at Eskimo Hill Landfill, Stafford Treasurer, City of Fredericksburg Treasurer, and Online. The following charts show the revenue by point of sale. The landfill residential drop-off site on Eskimo Hill Rd. carries 85% of all sales.

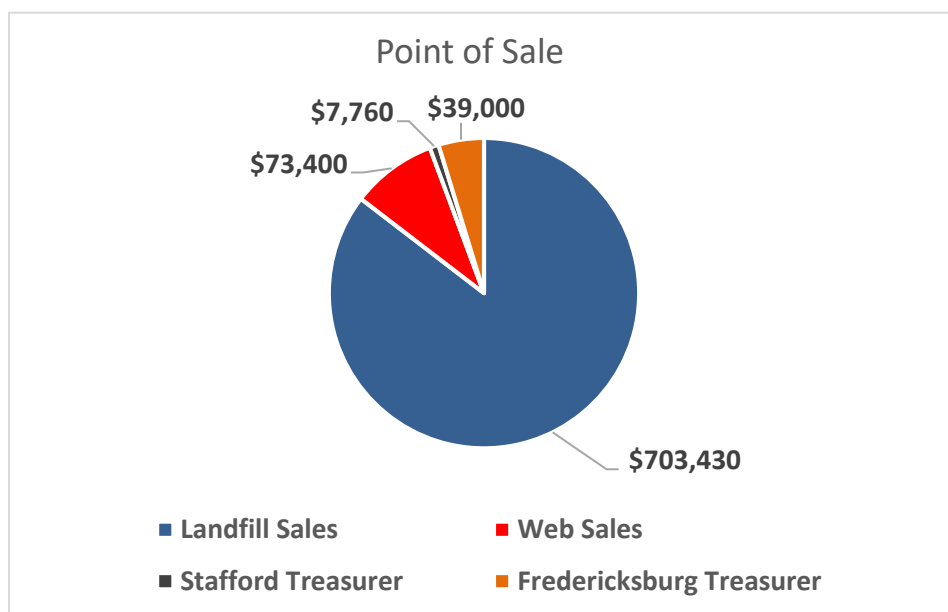


Figure 2 Point of Sales

The most purchased user fee type is the one-time pass as depicted below. Annual passes generate the most revenue.

Type	Transactions	Revenue
Daily Pass	48,178	\$240,890
Oversized Load	6,613	\$132,260
Coupon Books	4,250	\$170,000
Annual Pass	2,337	\$280,440

Table 1 User Fee Transaction & Revenue



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Financial Summary (Unaudited)

	Adopted FY21	Actuals	Inc/Dec
Interest	\$ 40,000	\$ 31,180	-22%
Recycling	\$ 70,000	\$ 90,274	29%
Commercial	\$ 5,625,000	\$ 6,603,858	17%
Grants	\$ 23,000	\$ 26,778	16%
Residential Fees	\$ 685,000	\$ 820,087	20%
Municipal Services			
Fredericksburg	\$ 300,000	\$ 299,789	0%
Stafford	\$ 40,000	\$ 40,000	0%
Sludge/Utilities			
Stafford	\$ 350,000	\$ 390,923	12%
Fredericksburg	\$ 140,000	\$ 106,564	-24%
Ameresco Lease	\$ 50,000	\$ 29,217	-42%
Milestone Lease	\$ 12,000	\$ 16,094	34%
Miscellaneous Sources	\$ 5,000	\$ 1,265	-75%
Total	\$ 7,340,000	\$ 8,452,251	15%

Table 2 Financial Summary (Unaudited)



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Weight and Material Summary

End Year Weight and Material Analysis

Weight and Material Analysis

CATEGORY	End Year FY21 <u>Weight</u>	End Year FY20 <u>Weight</u>	Difference <u>%</u>
Billable			
Commercial Waste	57093	61321	-7%
Residential Waste	60253	52555	15%
Fredericksburg	6787	6407	6%
Eskimo Hill	20112	20407	-1%
Belman Road	1318	1351	-2%
Mixed Surcharge add \$30/T	71	115	-38%
Debris Waste	61991	61873	0%
Dirt	566	1852	-69%
Tires Commercial	143	348	-59%
Sludge (city)	3806	4278	-11%
Sludge (county)	13469	13234	2%
Yardwaste	1146	1288	-11%
BILLABLE TONNAGE	226755	225029	1%
Non-Billable			
Litter/Cleanups	40	68	-41%
Recycling	7940	5197	53%
TOTAL TONNAGE	234,735	230,294	2%

Table 3 Weight and Material Analysis



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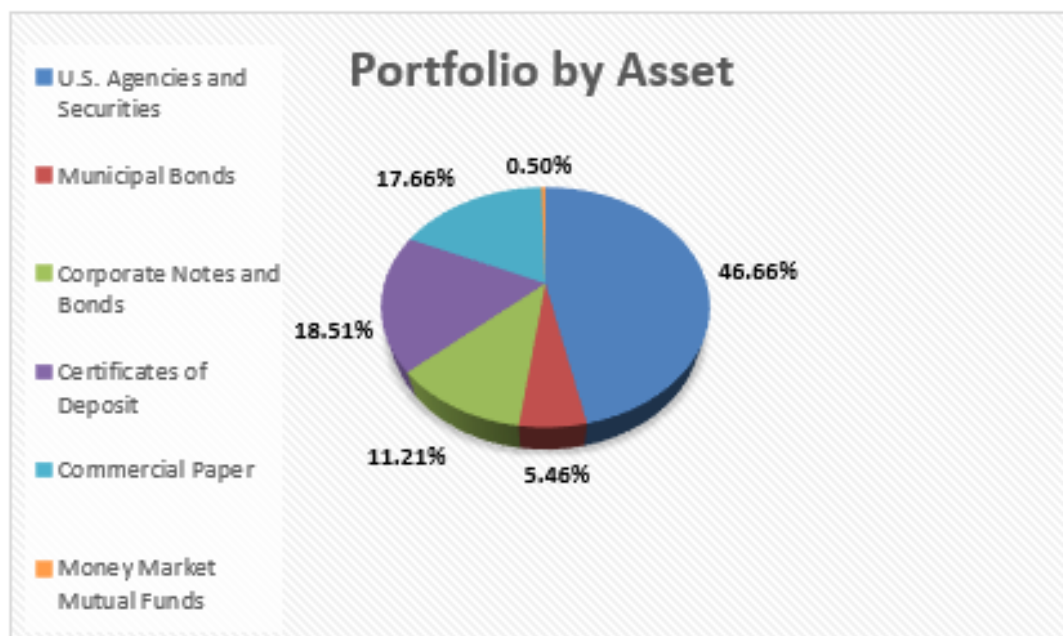
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Portfolio Composition

Security Type		% of Portfolio
U.S. Agencies and Securities	\$ 4,290,715	46.66%
Municipal Bonds	\$ 502,466	5.46%
Corporate Notes and Bonds	\$ 1,031,002	11.21%
Certificates of Deposit	\$ 1,701,845	18.51%
Commercial Paper	\$ 1,624,028	17.66%
Money Market Mutual Funds	\$ 46,162	0.50%
Total	\$ 9,196,218	100.00%

Table 4 Portfolio Composition

Figure 3 Portfolio by Asset





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Recycling and Diversion

The following locations accept residential recyclables:

City of Fredericksburg

Belman Road Recycling Center

1200 Belman Road

Hugh Mercer Elementary School

2100 Cowan Boulevard

Walker Grant Middle School

1 Learning Lane

Stafford County

Regional Landfill

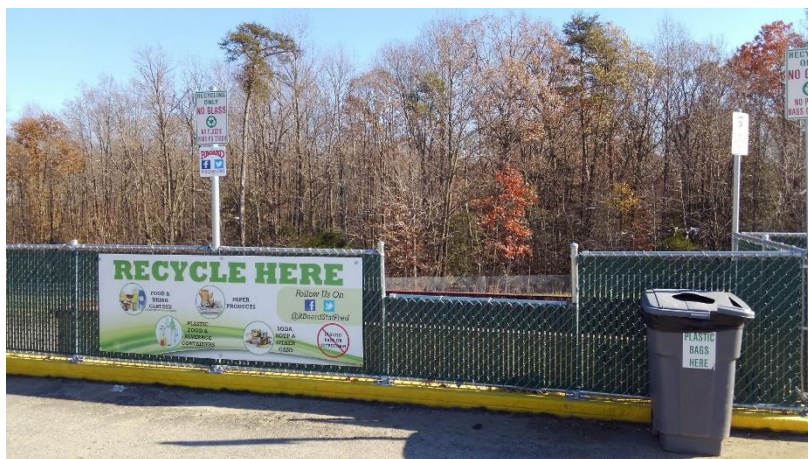
489 Eskimo Hill Road

Rowser Building

1739 Eskimo Hill Road

Gayle Middle School

100 Panther Drive



Eskimo Hill Residential Drop-off Site



Unmanned Mobile Drop-off Site



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The primary goal of the R-Board is to divert materials from the landfill in the most efficient manner. Recyclable materials are received from the mobile and residential drop-off sites as well as the City of Fredericksburg's Public Works curbside collections. Recycling for residents at the drop-off sites is free. The City of Fredericksburg began paying \$50 per ton for a single stream in FY21.

- Single Stream Recyclables include:
 - Cardboard
 - Newsprint
 - Mix paper
 - Steel and aluminum cans
 - Plastics grades 1-7 (no Styrofoam)

The R-Board also recycles the following materials

- Batteries*
- Fluorescent Bulbs **
- Glass*
- Oil/Antifreeze*
- Used Cooking Oil*
- Scrap Metal *
- Tires*
- Yard Waste***

* *Eskimo Hill and Belman Rd. Residential drop-off sites only.*

** *Fluorescent bulbs are collected at Eskimo Hill drop-off site only.*

*** *Yard Waste mulched however the high cost to operate this program requires residents to pay user fees.*

The R-Board captures glass thru a voluntary separation. In FY21 156 tons of glass were captured. Glass from Belman Rd. drop-off site is sent to Fairfax for processing and recycling. Glass collected at Eskimo Hill is used as roadbed material at the landfill. Much cardboard was also being thrown out in the regular trash bins. The R-Board placed two extra containers on-site to encourage the recycling of cardboard. Our residents have responded well. In FY21 408 additional tons were captured.



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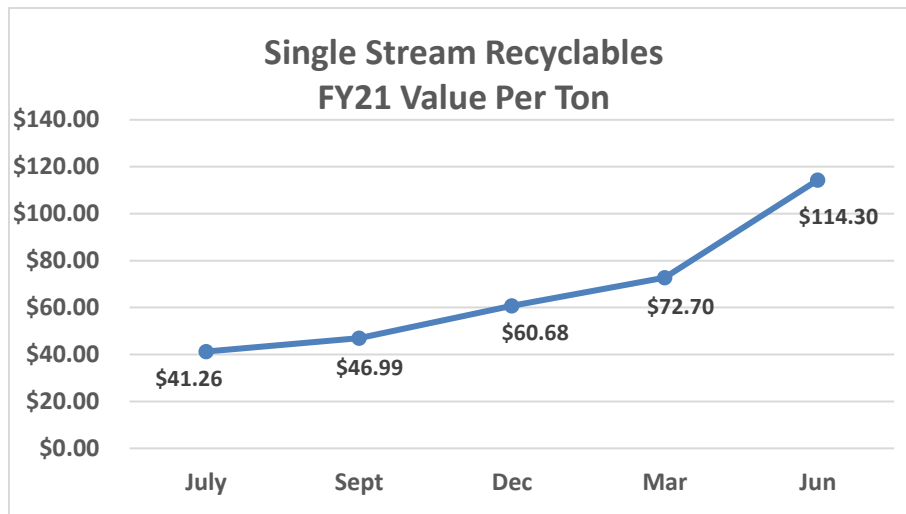


Figure 4 Single Stream Recyclables

From July 2020 to February of 2021 markets for single-stream continued to be poor in value. Costs to market averaged \$86 per ton. This did not include the costs of in-house handling. In March the R-Board began to see a positive recovery in single-stream recycling per ton value. By June 2021 the market cost had dropped to \$75 per ton. The current contract for single-stream will expire September 1, 2021, and an RFP is out to assess going forward.

The R-Board's waste tire recycling program experienced a loss of market sources. The area's largest intake source was forced to shut its doors on December 1, 2020. The R-Board did extensive research for markets and Requests for Quotes. Results indicated that the costs were prohibitive or the markets could not handle R-Board's volume. December 1, 2020, the R-Board closed intake from commercially generated sources. A stable market was found to handle residential intake only volumes. Since that time several markets have opened in the area for commercial operations to utilize.

The contract for scrap metal recycling expired on September 1, 2020. Request for Quotes was acquired. The average per ton revenue value to the R-Board for FY20 was \$67.50. In FY21 the average revenue value per ton was \$167. The prominent reason was a strong market recovery. The new contract also assisted in enhancing value.



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The Commonwealth of Virginia mandates that localities must prove a 25% recycling rate. The R-Board conducts a voluntary recycling audit of commercial entities within its jurisdiction. The voluntary reporting of this recycling activity source is essential to meeting the state percentage requirements. For the calendar year 2020, a 34.5% recycling rate was submitted to the Department of Environmental Quality.

Sources of Recycling Report Data	2019	2020	Percent Change
Commercial Recycling Audit	64,750 tons	55,643 tons	16% decrease
Primary Recycled Materials Total	58,103 tons	61,001 tons	5% increase
Overall Waste Generation	142,903 tons	140,208 tons	2% decrease
R-Board Intake of Single Stream	2,490 tons	1,663 tons	33% decrease

Table 5 Recycling Audit Data



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Household Hazardous and Electronic Waste Collection



The R-Board hosts household hazardous and electronic waste days for its residents on a voluntary community outreach platform. Residents of Stafford County and the City of Fredericksburg use this program at no charge. Since the year 2000, the R-Board has been offering the program. It has invested over 1 million dollars to keep these materials out of the landfill. The R-Board performed two collection events in Fiscal Year 2021. FY2021 programs saw the introduction of a new organization offering to collect the E-Waste intake. The Stafford Middle School Leo's Club did both the fall and spring collections. The first event was at the Fredericksburg City Shop in October of 2020. The second event was held at the Stafford Regional Airport in June of 2021. A total of 880 residents participated in FY20. In FY21 the number of participants rose to 1,658. The total bulk/box equivalent gallons were estimated at 24,335 gallons of hazardous material. In FY20 12,250 gallons were collected. The total Electronic Waste collection for both programs netted over 9,000 lbs. of material. Following suit with the cardboard capture program at our residential drop-off, the R-Board brings a 40 yd container to collect and recycle cardboard. A total of 1,200 lbs. of cardboard was recycled.

The R-Board continues to provide waste oil and antifreeze collection and recycling to residents. Staff reported 11,765 gallons of oil and antifreeze collected in FY21. The fluorescent bulb collection and recycling program collected 31,010 linear feet of fluorescent bulbs and 2,508 compact bulbs.



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Litter Control

Goals:

- Coordinate efforts from available resources: paid staff, volunteers, partnerships, and organizations
- Focus Litter Pickup efforts on high traffic areas in Fredericksburg and Stafford
- Provide timely response to citizen calls on particular areas of concern

Programs:

- Rappahannock Regional Jail (RRJ) Inmate Roadside Litter
- Rappahannock Region Jail (AAP) Adult Probationer Program
- Rappahannock Area Office on Youth (OOY)
- Community Cleanups & One Time Special Cleanup
- Neighborhood or Volunteer Cleanup
- Illegal Sign Removal
- Social Media & Website Messaging

Roadside Litter Collection

The number of community service workers has increased this year, due to some organizations not offering volunteer opportunities due to COVID. The R-Board program has benefited from this additional manpower. Nearly all of these workers are young people who have made a mistake, and want to do their hours, and close this chapter. Our program is very flexible and can be easily adapted by those with family, employment, or educational obligations.

R-Board staff monitors roadways for the City of Fredericksburg and Stafford County and collects litter by using both paid and non-paid labor. In FY2021 128,600 pounds of litter were removed from our communities.

- 375 (volunteer) participants in the litter collection program
- 62 Clean Up Special Events
- 94 Probationary Assignees
- 4,024 non-paid hours



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Community Outreach and Education

The R-Board has a team of community advocates paid and volunteers. We are proud to share our messages with a broad range of ages and interest groups. Below are a few examples of the many programs we attended last year:

- Supported VDOT, with two Stafford R-Board Members, in a community clean-up and promotional campaign recruiting volunteers. Thank you to Supervisor Cindy Lamb and Supervisor Meg Bohmke for their commitment and support. Recruited and received local media coverage and video/news coverage from B101.5/WFVA's Ted Schubel, expanding the message.



- Presenting Sponsor "Fredericksburg Earth Day" Weekend, and supported same by being the Saturday evening Family Film Night Sponsor. Staff also secured a video appearance by NBC4's Meteorologist Amelia Draper.





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- Staff supported three composting classes, two with the Central Rappahannock Regional Library and one with Ebenezer United Methodist Church.




Stafford/Fredericksburg City Residents

BACKYARD COMPOSTING 101
 HOSTED BY
THE CENTRAL RAPPAHANNOCK REGIONAL LIBRARY
MONDAY, MAY 3RD, 2021 | 7:00PM - 8:00PM
 GOOGLE MEET WEBINAR
 PLEASE FOLLOW THE LINK IN THE POST DETAILS TO REGISTER.
 FOR QUESTIONS, PLEASE CALL (540) 658-5279



The Central Rappahannock Regional Library invites Stafford County and the City of Fredericksburg residents to join The R-Board and The Virginia Master Gardeners Association for a webinar on Backyard Composting 101 on Monday May 3rd, 2021 at 7:00 PM. This webinar will discuss how to collect and properly use "browns" and "greens" for at home composting. This event will be beneficial for ALL skill levels of at-home gardeners.



COMPOSTING After completion of the webinar, if residents desire, they will be eligible to purchase a \$35 composting bin from the R-Board to use at home. Please contact, rboard@staffordcountyva.gov for more details.

- Supplied equipment and promotional support to three volunteer groups' cleanup efforts, Aquia Harbour, Leeland Station, and City-wide Clean and Green Commission Cleanup.





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- Stafford teacher, Fredericksburg resident, and environmental advocate, Konrad Heller, asked for a special bus tour of the landfill to be provided to his 20+ science enrichment students. Konrad is a science teacher at Colonial Forge and teaches summer students from the region selected to attend the Commonwealth Governor's School as freshmen, in the fall. The field trip was led by MacKenzie Bellimam, Environmental Technician, for the R-Board. Casiana De Jesus, the R-Board summer intern, provided additional educational content.

